

瑞萨电子  
MCU型号速查手册





## 瑞萨 MCU 型号速查手册

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QzROM

720、740工具

低功耗

R8C族及工具

M16C

R32C

M16C族工具

SuperH族及工具

安全MCU

78K

V850

78K、V850工具

芯片封装说明

QzROM

| 群    | 型号  | 存储器   |                              | 最高工作频率/工作电压<br>(最大范围) | 最小指令执行时间        | I/O端口 | 时钟  |          |       |        | 电压检测       |            | AD转换  | DA转换 | 定时器数目 |     | 定时器功能 |      |       |       |        |        | 串行接口   |        |        |                    |          | 外部中断数 | 工作温度范围(°C) | 封装 | 应用领域 |   |   |       |         |       |         |       |                   |              |              |       |                    |                   |                               |                   |
|------|---|---|------------------------------|-----------------------|-----------------|-------|-----|----------|-------|--------|------------|------------|-------|------|-------|-----|-------|------|-------|-------|--------|--------|--------|--------|--------|--------------------|----------|-------|------------|----|------|---|---|-------|---------|-------|---------|-------|-------------------|--------------|--------------|-------|--------------------|-------------------|-------------------------------|-------------------|
|      |   | (10bits/W)<br>QZROM   | (4bits/W)<br>RAM             |                       |                 |       | PLL | 副振荡器/RTC | 内部振荡器 | 振荡停止检测 | 上电复位(ROSI) | 低电压检测(LVD) |       |      | 8位    | 16位 | 输入捕捉  | 输出比较 | PWM输出 | 事件计数器 | 二相编码输入 | 三相变频控制 | 看门狗定时器 | 异步串行接口 | 同步串行接口 | I <sup>2</sup> C总线 | SSU/特殊串口 |       |            |    |      |   |   |       |         |       |         |       |                   |              |              |       |                    |                   |                               |                   |
| 4283 | M34283G2GP<br>M34283G2-XXXGP  | 2048W<br>(9bits/W)  | 64W                          | 4MHz/<br>1.8-3.6V     | 8us<br>@4MHz    | 16    | -   | -        | -     | -      | ○          | ○          | -     | -    | 2     | -   | -     | -    | -     | -     | -      | -      | ○      | -      | -      | -                  | -        | -     | -          | -  | -    | - | - | 20-85 | SSOP-20 | 遥控器   |         |       |                   |              |              |       |                    |                   |                               |                   |
| 4286 | M34286G2GP<br>M34286G2-XXXGP  | 2048W<br>(9bits/W)  | 64W                          | 4MHz/<br>1.8-3.6V     | 2us<br>@4MHz    | 16    | -   | -        | -     | -      | ○          | ○          | -     | -    | 2     | -   | -     | -    | -     | -     | -      | -      | ○      | -      | -      | -                  | -        | -     | -          | -  | -    | - | - | -     | -       | 40-85 | SSOP-20 | 遥控器   |                   |              |              |       |                    |                   |                               |                   |
| 4508 | M34508G4FF/GP<br>M34508G4-XXXFP/GP<br>M34508G4HFP/GP<br>M34508G4H-XXXFP/GP  | 4096W   | 256W                         | 6MHz/<br>1.8V-5.5V    | 0.5us<br>@6MHz  | 14    | -   | -        | ○     | -      | -          | -          | 10位×4 | -    | 2     | -   | -     | -    | ○     | ○     | -      | -      | ○      | -      | ○      | -                  | -        | -     | -          | -  | -    | - | - | -     | -       | -     | -       | 20-85 | SSOP-20<br>SOP-20 | 家电、OA设备、民用设备 |              |       |                    |                   |                               |                   |
| 4509 | M34509G4FP<br>M34509G4-XXXFP<br>M34509G4HFP<br>M34509G4H-XXXFP  | 4096W   | 256W                         | 6MHz/<br>1.8V-5.6V    | 0.5us<br>@6MHz  | 18    | -   | -        | ○     | -      | -          | -          | 10位×6 | -    | 2     | -   | -     | -    | ○     | ○     | -      | -      | ○      | -      | ○      | -                  | -        | -     | -          | -  | -    | - | - | -     | -       | -     | -       | -     | 20-85             | SSOP-24      | 家电、OA设备、民用设备 |       |                    |                   |                               |                   |
| 4559 | M34559G6FP<br>M34559G6-XXXFP  | 6144W   | 288W                         | 6MHz/<br>1.8V-5.6V    | 0.5us<br>@6MHz  | 25    | -   | ○        | ○     | -      | ○          | ○          | -     | -    | 2     | 1   | -     | -    | ○     | ○     | -      | -      | ○      | -      | ○      | -                  | -        | -     | -          | -  | -    | - | - | -     | -       | -     | -       | -     | 20-85             | LQFP-52      | 遥控器          |       |                    |                   |                               |                   |
| 455A | M3455AG8FP<br>M3455AG8-XXXFP<br>M3455AGCFF<br>M3455AGC-XXXFP  | 8192W<br><br>12288W   | 288W                         | 6MHz/<br>1.8V-5.6V    | 0.5us<br>@6MHz  | 25    | -   | ○        | ○     | -      | ○          | ○          | -     | -    | 2     | 1   | -     | -    | ○     | ○     | -      | -      | ○      | -      | ○      | -                  | -        | -     | -          | -  | -    | - | - | -     | -       | -     | -       | -     | -                 | 20-85        | LQFP-52      | 遥控器   |                    |                   |                               |                   |
| 4571 | M34571G4FP<br>M34571G4-XXXFP<br>M34571G6FP<br>M34571G6-XXXXFP<br>M34571GDFF<br>M34571GD-XXXFP   | 4096W<br><br>6144W<br><br>16384W                                | 128W<br><br>128W<br><br>128W | 6MHz/<br>1.8V-5.6V    | 0.5us<br>@6MHz  | 19    | -   | -        | -     | -      | ○          | ○          | -     | -    | 3     | -   | -     | -    | ○     | ○     | -      | -      | ○      | -      | ○      | -                  | -        | -     | -          | -  | -    | - | - | -     | -       | -     | -       | -     | -                 | 20-85        | SSOP-24      | 遥控器   |                    |                   |                               |                   |
| 7544 | M37544G2ASP/GP<br>M37544G2A-XXXXSP/GP   | 8K  | 256                          | 8MHz/<br>1.8-5.5V     | 0.25us<br>@8MHz | 25    | -   | -        | ○     | ○      | -          | -          | 8位×6  | -    | 2     | 1   | -     | -    | -     | ○     | -      | -      | ○      | ○      | ○      | -                  | -        | -     | -          | -  | -    | - | - | -     | -       | -     | -       | -     | -                 | -            | -            | 20-85 | SDIP-32<br>LQFP-32 | OA设备、FA设备、家电、民用设备 |                               |                   |
| 7545 | M37545G1KP<br>M37545G2KP<br>M37545G4GP/KP<br>M37545G4-XXXGP<br>M37545G6GP/KP<br>M37545G6-XXXGP<br>M37545G8GP/KP<br>M37545G8-XXXGP<br>M37545GCCP<br>M37545GC-XXXGP<br>M37545GFGP<br>M37545GF-XXXGP | 4K<br>8K<br><br>16K<br><br>24K<br><br>32K<br><br>48K<br><br>60K | 52<br><br>512                | 4MHz/<br>1.8-3.6V     | 2us<br>@4MHz    | 25    | -   | -        | -     | -      | ○          | ○          | -     | -    | 3     | -   | -     | -    | -     | -     | -      | -      | ○      | -      | ○      | -                  | -        | -     | -          | -  | -    | - | - | -     | -       | -     | -       | -     | -                 | -            | -            | 20-85 | LQFP-32<br>SSOP-32 | 遥控器               |                               |                   |
| 7546 | M37546G2GP/HP/SP<br>M37546G2-XXXGP/HP/SP<br>M37546G4GP/HP/SP<br>M37546G4-XXXGP/HP/SP  | 8K<br><br>16K   | 384<br><br>512               | 8MHz/<br>1.8-5.5V     | 0.25us<br>@8MHz | 25    | -   | -        | ○     | ○      | ○          | ○          | 10位×6 | -    | 2     | 2   | ○     | ○    | ○     | ○     | -      | -      | ○      | ○      | ○      | -                  | -        | -     | -          | -  | -    | - | - | -     | -       | -     | -       | -     | -                 | -            | -            | -     | -                  | 20-85             | SDIP-32<br>LQFP-32<br>WQFN-36 | OA设备、FA设备、家电、民用设备 |
| 7547 | M37547G2FP<br>M37547G2-XXXFP<br>M37547G4FP<br>M37547G4-XXXFP  | 8K<br><br>16K   | 384<br><br>512               | 8MHz/<br>1.8-5.5V     | 0.25us<br>@8MHz | 29    | -   | -        | ○     | ○      | ○          | ○          | 10位×8 | -    | 2     | 2   | ○     | ○    | ○     | ○     | -      | -      | ○      | ○      | ○      | -                  | -        | -     | -          | -  | -    | - | - | -     | -       | -     | -       | -     | -                 | -            | -            | -     | 20-85              | SSOP-36           | OA设备、FA设备、家电、民用设备             |                   |
| 7548 | M37548G1FP<br>M37548G1-XXXFP  | 2K  | 192                          | 8MHz/<br>1.8-5.5V     | 0.25us<br>@8MHz | 16    | -   | -        | ○     | ○      | ○          | ○          | 10位×6 | -    | 2     | 1   | ○     | ○    | ○     | -     | -      | -      | ○      | ○      | ○      | -                  | -        | -     | -          | -  | -    | - | - | -     | -       | -     | -       | -     | -                 | -            | -            | 20-85 | SSOP-20            | OA设备、FA设备、家电、民用设备 |                               |                   |

## QzROM

| 群                     | 型号                   | 存储器                  |                  | 最高工作频率/工作电压<br>(最大范围) | 最小指令执行时间           | I/O端口 | 时钟  |         |       | 电压检测   |           | AD转换   | DA转换 | 定时器数目      |    | 定时器功能 |      |      |       |       |        | 串行接口   |        |        |        | 外部中断数  | 工作温度范围(°C)         | 封装                 | 应用领域                          |                   |
|-----------------------|----------------------|----------------------|------------------|-----------------------|--------------------|-------|-----|---------|-------|--------|-----------|--------|------|------------|----|-------|------|------|-------|-------|--------|--------|--------|--------|--------|--------|--------------------|--------------------|-------------------------------|-------------------|
|                       |                      | (10kbits/W)<br>QZROM | (4bits/W)<br>RAM |                       |                    |       | PLL | 副时钟/RTC | 内部振荡器 | 振荡停止检测 | 上电复位(POR) |        |      | 低电压检测(LVD) | 8位 | 16位   | 输入捕捉 | 输出比较 | PWM输出 | 事件计数器 | 二相编码输入 | 三相变频控制 | 看门狗定时器 | 异步串行接口 | 同步串行接口 |        |                    |                    |                               | PC总线              |
| 7548                  | M37548G2FP           | 4K                   | 256              | 8MHz/<br>1.8~5.5V     | 0.25us<br>@8MHz    | 16    | -   | ○       | ○     | ○      | ○         | 10位×6  | -    | 2          | 1  | ○     | ○    | ○    | -     | -     | -      | ○      | ○      | ○      | -      | -      | 9                  | -20~85             | SSOP-20                       | OA设备、FA设备、家电、民用设备 |
|                       | M37548G2-XXXFP       |                      |                  |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
|                       | M37548G3FP           | 256                  |                  |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
|                       | M37548G3-XXXFP       | 6K                   |                  |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
| 7549                  | M37549G1FP           | 2K                   | 192              | 8MHz/<br>1.8~5.5V     | 0.25us<br>@8MHz    | 20    | -   | ○       | ○     | ○      | ○         | 10位×8  | -    | 2          | 1  | ○     | ○    | ○    | -     | -     | -      | ○      | ○      | ○      | -      | -      | 11                 | -20~85             | SSOP-24                       | OA设备、FA设备、家电、民用设备 |
|                       | M37549G1-XXXFP       |                      |                  |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
|                       | M37549G2FP           | 4K                   | 256              |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
|                       | M37549G2-XXXFP       |                      |                  |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
|                       | M37549G3FP           | 6K                   | 256              |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
|                       | M37549G3-XXXFP       |                      |                  |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
| 3803H                 | M38039G4HHP/KP/SP    | 16K                  |                  | 16.8MHz/<br>1.8~5.5V  | 0.24us<br>@16.8MHz | 56    | -   | ○       | -     | -      | -         | 10位×16 | 8位×2 | 4          | 1  | -     | -    | ○    | ○     | -     | -      | ○      | ○      | ○      | -      | -      | 8                  | -20~85             | SDIP-64<br>LQFP-64<br>FLGA-64 | OA设备、家电           |
|                       | M38039G4H-XXXHP/KP   |                      |                  |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
|                       | M38039G6HHP/KP/SP    | 24K                  |                  |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
|                       | M38039G6H-XXXHP/KP   |                      |                  |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
|                       | M38039G8HHP/KP/SP    | 32K                  |                  |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
|                       | M38039G8H-XXXHP/KP   |                      |                  |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
|                       | M38039GCHHP/KP/SP/WG | 48K                  |                  |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
| M38039GCH-XXXHP/KP/WG |                      |                      |                  |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
| 3823                  | M38234G4FP/HP        | 16K                  | 640              | 10MHz/<br>1.8~5.5V    | 0.4us<br>@10MHz    | 54    | -   | ○       | ○     | -      | -         | 10位×8  | -    | 3          | 2  | -     | -    | ○    | -     | -     | ○      | ○      | ○      | -      | -      | 14     | -20~85             | QFP-80<br>LQFP-80  | 照相机、音频设备、家电、民用设备              |                   |
|                       | M38234G4-XXXFP/HP    |                      |                  |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
|                       | M38235G6FP/HP        | 24K                  | 768              |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
|                       | M38235G6-XXXFP/HP    |                      |                  |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
|                       | M38238G8FP/HP        | 32K                  | 1.5K             |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
|                       | M38238G8-XXXFP/HP    |                      |                  |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
|                       | M38239GCFP/HP        | 48K                  | 2K               |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
|                       | M38239GC-XXXFP/HP    |                      |                  |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
| M3823AGFFP/HP         | 60K                  | 2.5K                 |                  |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
| M3823AGF-XXXFP/HP     |                      |                      |                  |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
| 3850A                 | M38503G4AFP/SP       | 16K                  | 512              | 12.5MHz/<br>1.8~5.5V  | 0.32us<br>@12.5MHz | 34    | -   | ○       | -     | -      | -         | 10位×9  | -    | 4          | -  | -     | ○    | ○    | -     | -     | ○      | ○      | -      | -      | 6      | -20~85 | SDIP-42<br>SSOP-42 | 家电、民用设备            |                               |                   |
|                       | M38503G4A-XXXFP/SP   |                      |                  |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
| 3858                  | M38588GCFP/SP        | 48K                  | 1.5K             | 12.5MHz/<br>2.4~5.5V  | 0.5us<br>@8MHz     | 34    | -   | ○       | -     | -      | -         | 8位×9   | -    | 4          | 2  | -     | -    | ○    | ○     | -     | -      | ○      | ○      | -      | -      | 8      | -20~85             | SDIP-42<br>SSOP-42 | OA设备、FA设备、家电、民用设备             |                   |
|                       | M38588GC-XXXFP/SP    |                      |                  |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
| 38D2                  | M38D24G4FP/HP        | 16K                  | 640              | 12.5MHz/<br>1.8~5.5V  | 0.32us<br>@12.5MHz | 51    | -   | ○       | ○     | -      | -         | 10位×8  | -    | 4          | 2  | -     | -    | ○    | ○     | -     | -      | ○      | ○      | -      | -      | 13     | -20~85             | LQFP-64            | 家电、民用设备                       |                   |
|                       | M38D24G4-XXXFP/HP    |                      |                  |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
|                       | M38D24G6FP/HP        | 24K                  | 640              |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
|                       | M38D24G6-XXXFP/HP    |                      |                  |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
|                       | M38D28G8FP/HP        | 32K                  | 1.5K             |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
|                       | M38D28G8-XXXFP/HP    |                      |                  |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
|                       | M38D29GCFP/HP        | 48K                  | 2K               |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
|                       | M38D29GC-XXXFP/HP    |                      |                  |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
| M38D29GFFP/HP         | 60K                  | 2K                   |                  |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
| M38D29GF-XXXFP/HP     |                      |                      |                  |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
| 38D5                  | M38D58G8FP/HP        | 32K                  | 1.5K             | 12.5MHz/<br>1.8~5.5V  | 0.32us<br>@12.5MHz | 59    | -   | ○       | ○     | -      | -         | 10位×8  | -    | 4          | 2  | -     | -    | ○    | ○     | -     | -      | ○      | ○      | -      | -      | 13     | -20~85             | QFP-80<br>LQFP-80  | 家电、民用设备                       |                   |
|                       | M38D58G8-XXXFP/HP    |                      |                  |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
|                       | M38D59GCFP/HP        | 48K                  | 2K               |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
|                       | M38D59GC-XXXFP/HP    |                      |                  |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
|                       | M38D59GFFP/HP        | 60K                  | 2K               |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |
| M38D59GF-XXXFP/HP     |                      |                      |                  |                       |                    |       |     |         |       |        |           |        |      |            |    |       |      |      |       |       |        |        |        |        |        |        |                    |                    |                               |                   |

720族、740族开发工具

| MCU |       |          | 介绍性工具                                | 仿真器(包括仿真调试程序)  |   |                             | 编程工具   |   |                         | 软件工具      |        |  |
|-----|-------|----------|--------------------------------------|--|---|-----------------------------|--|---|-------------------------|-----------|--------|--|
| 族   | 系列    | 群        | Starter kit                          | 仿真单片机  | 封装转换套件  | 小型仿真器<br>(Compact Emulator) | 编程器  | IC插座电路板   | 汇编 / 编译器                | 软件仿真调试器   | 集成开发环境 |  |
| 720 | 720   | 4283     | -                                    | M34282E2GP   | -   | M34282T2-CPE                | EFP 系列烧录器(慧星)  | -   | ASM72                   | M3T-PD72M | -      |  |
|     |       | 4286     | -                                    | M34286G2GP   | -   | M34286T2-CPE                | EFP 系列烧录器(慧星)  | -   | ASM72                   | M3T-PD72M | -      |  |
|     | 4500  | 4509     | -                                    | M34509G4FP   | -   | M34509T2-CPE                | EFP 系列烧录器(慧星)  | -   | ASM45                   | M3T-PD45M | -      |  |
|     |       | 4509     | -                                    |  | -   | M34509T2-CPE                | EFP 系列烧录器(慧星)  | -   | ASM45                   | M3T-PD45M | -      |  |
|     |       | 4559     | -                                    | M34559G8EFP  | M34559T-PTCA, M34559T-PTCB  | M34559T2-CPE                | EFP 系列烧录器(慧星)  | -   | ASM45                   | M3T-PD45M | -      |  |
|     |       | 455A     | -                                    | M3455AGCEFP  | M34559T-PTCA, M34559T-PTCB  | M3455AT2-CPE                | EFP 系列烧录器(慧星)  | -   | ASM45                   | M3T-PD45M | -      |  |
|     |       | 4571     | -                                    | M34571GDFP   | -   | M34571T2-CPE                | EFP 系列烧录器(慧星)  | -   | ASM45                   | M3T-PD45M | -      |  |
| 740 | 740   | 7544     | -                                    | M37544RSS  | M37530T-PTCC<br>(42 pin RSS--->SDIP-32)   | M38000T2-CPE                | E8a + FDT<br>EFP 系列烧录器(慧星)                             | R0K30754XA000BR (LQFP-32)<br>R0K30754XA010BR (SDIP-32)  | M3T-ICC740<br>M3T-SRA74 | M3T-PD38  | HEW/TM |  |
|     |       | 7545     | -                                    | M37545RLSS   | M37530T-PTC + M37530T-PTCB<br>(42 pin SDIP--->LQFP-32)  |                             | E8a + FDT<br>EFP 系列烧录器(慧星)                             | R0K30754XA000BR (LQFP-32)   |                         |           |        |  |
|     |       | 7546     | RSKM37542                            | M37542RSS  | M37530T-PTC + M37530T-PTCB +<br>YQSOCKET032SAF2 + YQPACK032SA +<br>NQPACK032SA<br>(42 pin SDIP--->LQFP-32)  |                             | E8a + FDT<br>EFP 系列烧录器(慧星)                             | R0K30754XA000BR (LQFP-32)<br>R0K30754XA010BR (SDIP-32)  |                         |           |        |  |
|     |       |          |                                      |  | M37530T-PTCC<br>(42 pin RSS--->SDIP-32)   |                             | E8a + FDT<br>EFP 系列烧录器(慧星)                             | R0K30754XA020BR (SSOP-36)   |                         |           |        |  |
|     |       | 7547     | -                                    | M37549T-RLSS   | M37530T-PTC + M3T-SSOP36B-450<br>(42 pin RSS--->SSOP-36)  |                             | E8a + FDT<br>EFP 系列烧录器(慧星)                             | R0K300754Z000BR (LSSOP-20)  |                         |           |        |  |
|     |       | 7548     | -                                    |  | -   |                             | E8a + FDT<br>EFP 系列烧录器(慧星)                             | R0K300754Z000BR (SSOP-24)   |                         |           |        |  |
|     |       | 7549     | -                                    |  | -   |                             | E8a + FDT<br>EFP 系列烧录器(慧星)                             | R0K300754Z000BR (SSOP-24)   |                         |           |        |  |
|     | 38000 | 3803H    | RSKM3803H                            | M38049RLSS   | M38007T-PRB + LCC Socket<br>(64 PIN SDIP--->LQFP-64 0.8mm)<br>M3T-64DIP-DMS + M3T-FLX-64NSA<br>(64 PIN RLSS--->LQFP-64 0.8mm)<br>M38007T-PRB + M3T-64LCC-QSD +<br>YQSOCKET064SDF2 + YQPACK064SD +<br>NQPACK064SD-ND<br>(64 PIN SDIP--->LQFP-64 0.8mm) | M38000T2-CPE                | E8a + FDT<br>EFP 系列烧录器(慧星)                             | R0K33803HZ000BR (SDIP-64)<br>R0K33803HZ010BR (LQFP-64 0.8mm)<br>R0K33803HZ020BR (LQFP-64 0.5mm)<br>R0K33803HZ030BR (TFLGA-64) |                         |           |        |  |
|     |       |          |                                      |  | M38007T-PRB + M3T-64LCC-QSD<br>(64 PIN SDIP--->LQFP-64 0.5mm)   |                             | E8a + FDT<br>EFP 系列烧录器(慧星)                             | R0K303850A000BR (SSOP-42)<br>R0K303850A010BR (SDIP-42)  |                         |           |        |  |
|     |       | 3850A    | -                                    | M38507ARLSS  | M3T-42DIP-DMS + M3TDCT42B-450<br>(42 PIN SDIP--->SSOP-42 0.8mm)<br>M3T-42DIP-DMS + M3TSSOP42B-450<br>(42 PIN SDIP--->SSOP-42 0.8mm)   | E8a + FDT<br>EFP 系列烧录器(慧星)  | R0K303823A000BR (QFP-80)<br>R0K303823A010BR (LQFP-80)  |   |                         |           |        |  |
|     |       | 3823     | -                                    | M3823AT-RLFS   | M3T-F160-80NSD<br>(FLX160--->LQFP80 0.5mm)  | M38000T2-CPE                | E8a + FDT<br>EFP 系列烧录器(慧星)                             | R0K303850A000BR (SSOP-42)<br>R0K303850A010BR (SDIP-42)  |                         |           |        |  |
|     |       |          |                                      |  | M3T-F160-80NSA<br>(FLX160--->QFP80 0.8mm)   |                             |  |   |                         |           |        |  |
|     |       | 3858     | -                                    | M38588RSS  | M3T-F160-80LCC + LCC Socket<br>(FLX160--->LCC80 0.8mm)  | E8a + FDT<br>EFP 系列烧录器(慧星)  | R0K303823A000BR (QFP-80)<br>R0K303823A010BR (LQFP-80)  |   |                         |           |        |  |
|     |       |          |                                      |  | M3T-42DIP-DMS + M3TDCT42B-450<br>(42 PIN SDIP--->SSOP-42)<br>M3T-42DIP-DMS + M3TSSOP42B-450<br>(42 PIN SDIP--->SSOP-42)   | E8a + FDT<br>EFP 系列烧录器(慧星)  | R0K303850A000BR (SSOP-42)<br>R0K303850A010BR (SDIP-42) |   |                         |           |        |  |
|     | 38D2  | -        | M38D29T2-RLFS-FP<br>M38D29T2-RLFS-HP | M3T-F160-64NSD<br>(FLX160--->LQFP-64 0.5mm)            | M38000T2-CPE  | E8a + FDT<br>EFP 系列烧录器(慧星)  | R0K3038D2Z000BR (LQFP-64)<br>R0K3038D2Z010BR (LQFP-64) |   |                         |           |        |  |
|     |       |          |                                      | M3T-F160-64NSA<br>(FLX160--->LQFP-64 0.8mm)            |   |                             |  |   |                         |           |        |  |
|     | 38D5  | RSKM38D5 | M38D59T-RLFS                         | M3T-F160-80NSD<br>(FLX160--->LQFP80 0.5mm)             | M38000T2-CPE  | E8a + FDT<br>EFP 系列烧录器(慧星)  | R0K3038D5Z000BR (QFP-80)<br>R0K3038D5Z010BR (LQFP-80)  |   |                         |           |        |  |
|     |       |          |                                      | M3T-F160-80NSA<br>(FLX160--->QFP80 0.8mm)              |   |                             |  |   |                         |           |        |  |
|     |       |          |                                      | M3T-F160-80LCC + LCC Socket<br>(FLX160--->LCC80 0.8mm) |   |                             |  |   |                         |           |        |  |

低功耗

| 系列          | 群         | 型号         | 存储器       |          |     |        |          | 最高工作频率/工作电压<br>(最大范围) | DMA |      | 外部总线扩展 |          |            | 时钟       |         |       | 电压检测 |       | AD转换  | DA转换           | 定时器数目  |           |            | 定时器功能 |     |        |      |      |       | 通信接口  |        |        |      |        |        | 外部中断数 | 工作温度范围(°C) | 封装 | 应用领域 |        |       |                   |                               |                                 |                                 |                               |                       |
|-------------|-----------|------------|-----------|----------|-----|--------|----------|-----------------------|-----|------|--------|----------|------------|----------|---------|-------|------|-------|-------|----------------|--------|-----------|------------|-------|-----|--------|------|------|-------|-------|--------|--------|------|--------|--------|-------|------------|----|------|--------|-------|-------------------|-------------------------------|---------------------------------|---------------------------------|-------------------------------|-----------------------|
|             |           |            | Flash ROM | Mask ROM | OTP | EEPROM | ROM-less |                       | RAM | DMA0 | DMA1   | 地址数据分离总线 | 地址数据复用总线   | SDRAM控制器 | DRAM控制器 | I/O接口 | PLL  | 内部振荡器 |       |                | 振荡停止检测 | 上电复位(POR) | 低电压检测(LVD) | 8位    | 16位 | 32位及以上 | 输入捕捉 | 输出比较 | PWM输出 | 事件计数器 | 二相编码输入 | 三相变频控制 | 实时端口 | 看门狗定时器 | 异步串行接口 |       |            |    |      | 同步串行接口 | I-C总线 | SSU/特殊串口          | SIM(Smart Card)               | CAN                             | Ethernet                        |                               |                       |
|             |           |            |           |          |     |        |          |                       |     |      |        |          |            |          |         |       |      |       |       |                |        |           |            |       |     |        |      |      |       |       |        |        |      |        |        |       |            |    |      |        |       |                   |                               |                                 |                                 | 封装                            | 应用领域                  |
| H8/300H超低功耗 | H8/38076R | H8/38076RF | 48K       | -        | -   | -      | 2K       | -                     | -   | -    | -      | -        | 63<br>(72) | -        | ○       | ○     | -    | ○     | -     | 10位×8          | -      | -         | 4          | -     | ○   | ○      | ○    | ○    | -     | -     | -      | ○      | ○    | ○      | ○      | -     | -          | -  | -    | -      | -     | -                 | -                             | 14                              | -20~75<br>-40~85                | QFP-80<br>TQFP-80<br>TFLGA-85 | 医疗产品、电表、<br>测量和数字消费产品 |
|             | H8/38086R | H8/38083R  | 48K       | -        | -   | -      | 2K       | -                     | -   | -    | -      | -        | 63<br>(72) | -        | ○       | ○     | -    | ○     | -     | 10位×3<br>14位×2 | -      | -         | 4          | -     | ○   | ○      | ○    | ○    | -     | -     | -      | ○      | ○    | ○      | ○      | -     | -          | -  | -    | -      | -     | -                 | 14                            | QFP-80<br>TQFP-80<br>TFLGA-85   |                                 | 医疗产品、电表、<br>测量和数字消费产品         |                       |
|             | H8/38099  | H8/38099F  | 128K      | -        | -   | -      | 4K       | -                     | -   | -    | -      | -        | 83         | -        | ○       | ○     | -    | ○     | -     | 10位×8          | -      | 2         | 4          | -     | ○   | ○      | ○    | ○    | -     | -     | -      | ○      | ○    | ○      | ○      | -     | -          | -  | -    | -      | -     | 14                | LQFP-100                      | 医疗产品、<br>数字消费和便携式产品             |                                 |                               |                       |
|             | H8/38602R | H8/38602RF | 16K       | -        | -   | -      | 1K       | -                     | -   | -    | -      | -        | 19         | -        | ○       | ○     | -    | ○     | -     | 10位×6          | -      | 1         | 2          | -     | ○   | ○      | ○    | ○    | -     | -     | -      | ○      | ○    | ○      | ○      | -     | -          | -  | -    | -      | -     | 3                 | LQFP-32<br>QFN-32             | 烟雾监测、数字消费产品、<br>仪表、无线应用和通用手持设备  |                                 |                               |                       |
|             | H8/38776  | H8/38776   | 48K       | -        | -   | -      | 2K       | -                     | -   | -    | -      | -        | 63         | -        | ○       | ○     | -    | ○     | -     | 10位×8          | -      | -         | 3          | -     | ○   | ○      | ○    | ○    | -     | -     | -      | ○      | ○    | ○      | ○      | -     | -          | -  | -    | -      | -     | 14                | QFP-80<br>TQFP-80<br>TFLGA-85 | 无线、传感器<br>和数字消费应用               |                                 |                               |                       |
|             | H8/38799  | H8/38798   | 128K      | -        | -   | -      | 4K       | -                     | -   | -    | -      | -        | 83         | -        | ○       | ○     | -    | ○     | -     | 10位×8          | -      | -         | 4          | -     | ○   | ○      | ○    | ○    | -     | -     | -      | ○      | ○    | ○      | ○      | -     | -          | -  | -    | -      | -     | 14                | LQFP-100                      | 医疗设备、数字消费和便携式产品                 |                                 |                               |                       |
| H8/300L超低功耗 | H8/38004  | H8/38004   | 32K       | -        | -   | -      | 1K       | -                     | -   | -    | -      | -        | 50         | -        | ○       | -     | -    | -     | 10位×4 | -              | 1      | 2         | -          | -     | ○   | ○      | ○    | -    | -     | -     | ○      | ○      | ○    | -      | -      | -     | -          | -  | -    | -      | 11    | -20~75<br>-40~85  | QFP-64<br>LQFP-64             | 一般电池驱动的设备(通信设备、<br>健康器具和民用数字产品) |                                 |                               |                       |
|             |           | H8/38002   | 16K       | -        | -   | -      | 1K       | -                     | -   | -    | -      | -        | 50         | -        | ○       | -     | -    | -     | 10位×4 | -              | 1      | 2         | -          | -     | ○   | ○      | ○    | -    | -     | -     | ○      | ○      | ○    | -      | -      | -     | -          | -  | -    | -      | 11    |                   | QFP-64<br>LQFP-64             | 一般电池驱动的设备(通信设备、<br>健康器具和民用数字产品) |                                 |                               |                       |
|             | H8/38104  | H8/38104   | 32K       | -        | -   | -      | 1K       | -                     | -   | -    | -      | -        | 50         | -        | ○       | ○     | -    | ○     | -     | 10位×4          | -      | 1         | 2          | -     | -   | ○      | ○    | ○    | -     | -     | -      | ○      | ○    | ○      | -      | -     | -          | -  | -    | -      | -     | 11                | -20~75<br>-40~85              | QFP-64<br>LQFP-64               | 一般电池驱动的设备(通信设备、<br>健康器具和民用数字产品) |                               |                       |
|             |           | H8/38102   | 16K       | -        | -   | -      | 1K       | -                     | -   | -    | -      | -        | 50         | -        | ○       | ○     | -    | ○     | -     | 10位×4          | -      | 1         | 2          | -     | -   | ○      | ○    | ○    | -     | -     | -      | ○      | ○    | ○      | -      | -     | -          | -  | -    | -      | -     | 11                |                               | QFP-64<br>LQFP-64               | 一般电池驱动的设备(通信设备、<br>健康器具和民用数字产品) |                               |                       |
|             | H8/38024R | H8/38024R  | 32K       | -        | -   | -      | 1K       | -                     | -   | -    | -      | -        | 66         | -        | ○       | -     | -    | -     | 10位×8 | -              | 3      | 2         | -          | ○     | ○   | ○      | ○    | -    | -     | -     | ○      | ○      | ○    | ○      | -      | -     | -          | -  | -    | -      | -     | 13                | -20~75<br>-40~85              | QFP-80<br>TQFP-80<br>TFLGA-85   | 大型家用电器、<br>便携式通信设备、医疗设备         |                               |                       |
|             | H8/38124  | H8/38124   | 32K       | -        | -   | -      | 1K       | -                     | -   | -    | -      | -        | 65         | -        | ○       | ○     | -    | ○     | -     | 10位×8          | -      | 3         | 2          | -     | ○   | ○      | ○    | ○    | -     | -     | -      | ○      | ○    | ○      | ○      | -     | -          | -  | -    | -      | -     | 13                | -20~75<br>-40~85              | QFP-80<br>TQFP-80               | 大型家用电器、<br>便携式通信设备、医疗设备         |                               |                       |
|             |           | H8/38122   | 16K       | -        | -   | -      | 1K       | -                     | -   | -    | -      | -        | 65         | -        | ○       | ○     | -    | ○     | -     | 10位×8          | -      | 3         | 2          | -     | ○   | ○      | ○    | ○    | -     | -     | -      | ○      | ○    | ○      | ○      | -     | -          | -  | -    | -      | -     | 13                |                               | QFP-80<br>TQFP-80               | 大型家用电器、<br>便携式通信设备、医疗设备         |                               |                       |
|             | H8/38327  | H8/38327   | 60K       | -        | -   | -      | 2K       | -                     | -   | -    | -      | -        | 64         | -        | ○       | -     | -    | -     | 10位×8 | -              | 3      | 2         | -          | ○     | ○   | ○      | ○    | -    | -     | -     | ○      | ○      | ○    | ○      | -      | -     | -          | -  | -    | -      | -     | 13                | -20~75<br>-40~85              | QFP-80<br>TQFP-80               | 家电、工业领域                         |                               |                       |
| H8/38324    |           | 32K        | -         | -        | -   | 2K     | -        | -                     | -   | -    | -      | 64       | -          | ○        | -       | -     | -    | 10位×8 | -     | 3              | 2      | -         | ○          | ○     | ○   | ○      | -    | -    | -     | ○     | ○      | ○      | ○    | -      | -      | -     | -          | -  | -    | -      | 13    | QFP-80<br>TQFP-80 |                               | 家电、工业领域                         |                                 |                               |                       |
| H8/38427    | H8/38427  | 60K        | -         | -        | -   | 2K     | -        | -                     | -   | -    | -      | 64       | -          | ○        | -       | -     | -    | 10位×8 | -     | 3              | 2      | -         | ○          | ○     | ○   | ○      | -    | -    | -     | ○     | ○      | ○      | ○    | -      | -      | -     | -          | -  | -    | -      | 13    | -20~75<br>-40~85  | QFP-80<br>TQFP-80             | 家电、工业领域                         |                                 |                               |                       |
|             | H8/38424  | 32K        | -         | -        | -   | 2K     | -        | -                     | -   | -    | -      | 64       | -          | ○        | -       | -     | -    | 10位×8 | -     | 3              | 2      | -         | ○          | ○     | ○   | ○      | -    | -    | -     | ○     | ○      | ○      | ○    | -      | -      | -     | -          | -  | -    | -      | 13    |                   | QFP-80<br>TQFP-80             | 家电、工业领域                         |                                 |                               |                       |



低功耗

| 系列          | 群        | 型号       | 存储器       |          |     |        |          | 最高工作频率/工作电压<br>(最大/典型)     | DMA                          |            | 外部总线扩展 |          |          |           | I/O 端口 | 时钟       |     |         |       | 电压检测   |           | AD 转换  | DA 转换  | 定时器数目      |    |     | 定时器功能  |      |      |        |       |        | 通信接口   |      |        |        |        |                     | 外部中断数               | 工作温度范围 (°C)  | 封装   | 应用领域 |
|-------------|----------|----------|-----------|----------|-----|--------|----------|----------------------------|------------------------------|------------|--------|----------|----------|-----------|--------|----------|-----|---------|-------|--------|-----------|--------|--------|------------|----|-----|--------|------|------|--------|-------|--------|--------|------|--------|--------|--------|---------------------|---------------------|--|--|------|
|             |          |          | Flash ROM | Mask ROM | OTP | EEPROM | ROM-Less |                            | RAM                          | DTC/DMA/II | DMAC   | 地址数据分离总线 | 地址数据复用总线 | SDRAM 控制器 |        | DRAM 控制器 | PLL | 副时钟/RTC | 内部振荡器 | 振荡停止检测 | 上电复位(POR) |        |        | 低电压检测(LVD) | 8位 | 16位 | 32位及以上 | 输入捕捉 | 输出比较 | PWM 输出 | 事件计数器 | 二相编码输入 | 三相变频控制 | 实时端口 | 看门狗定时器 | 异步串行接口 | 同步串行接口 | I <sup>2</sup> C 总线 |                     |  |  |      |
| H8/300 超低功耗 | H8/38347 | H8/38347 | 60K       | -        | -   | -      | 2K       | 8M <sup>H</sup> /2.7-5.5V  | -                            | -          | -      | -        | -        | 84        | -      | ○        | -   | -       | -     | -      | 10位×12    | -      | 3      | 2          | -  | ○   | ○      | ○    | ○    | -      | -     | -      | -      | -    | -      | -      | -      | 13                  | -20~75<br>-40~85    | QFP-100<br>TQFP-100  | 家电、工业领域  |      |
|             |          | H8/38344 | 32K       | -        | -   | -      | 2K       |                            | -                            | -          | -      | -        | -        | -         | 84     | -        | ○   | -       | -     | -      | -         | 10位×12 | -      | 3          | 2  | -   | ○      | ○    | ○    | ○      | -     | -      | -      | -    | -      | -      | 13     | -20~75<br>-40~85    | QFP-100<br>TQFP-100 | 家电、工业领域  |  |      |
|             | H8/38447 | H8/38447 | 60K       | -        | -   | -      | 2K       | 8M <sup>H</sup> /2.7-5.5V  | -                            | -          | -      | -        | -        | 84        | -      | ○        | -   | -       | -     | -      | 10位×12    | -      | 3      | 2          | -  | ○   | ○      | ○    | ○    | -      | -     | -      | -      | -    | -      | -      | 13     | -20~75<br>-40~85    | QFP-100<br>TQFP-100 | 家电、工业领域  |  |      |
|             |          | H8/38444 | 32K       | -        | -   | -      | 2K       |                            | -                            | -          | -      | -        | -        | -         | 84     | -        | ○   | -       | -     | -      | -         | 10位×12 | -      | 3          | 2  | -   | ○      | ○    | ○    | ○      | -     | -      | -      | -    | -      | -      | 13     | -20~75<br>-40~85    | QFP-100<br>TQFP-100 | 家电、工业领域  |  |      |
|             | H8/3854  | H8/3854F | 60K       | -        | -   | -      | 2K       | 10M <sup>H</sup> /3.0-5.5V | -                            | -          | -      | -        | -        | 29        | -      | ○        | -   | -       | -     | -      | 8位×4      | -      | 2      | 1          | -  | -   | ○      | -    | ○    | -      | -     | -      | -      | -    | -      | -      | 12     | -20~75              | QFP-100<br>TQFP-100 | 音频设备、LCD 模块  |  |      |
|             | H8/3857  | H8/3857F | 60K       | -        | -   | -      | 2K       | 10M <sup>H</sup> /3.0-5.5V | -                            | -          | -      | -        | -        | 44        | -      | ○        | -   | -       | -     | -      | 8位×8      | -      | 3      | 1          | -  | -   | ○      | ○    | ○    | -      | -     | -      | -      | -    | -      | -      | 13     | -20~75              | QFP-144<br>TQFP-144 | 音频设备、LCD 模块  |  |      |
|             | H8S/2000 | H8S/2268 | H8S/2265  | 128K     | -   | -      | -        | 8K                         | 20.5M <sup>H</sup> /3.0-5.5V | -          | ○      | -        | -        | -         | 78     | -        | ○   | -       | -     | -      | -         | 10位×10 | 8位×2   | 8          | 8  | 8   | ○      | ○    | ○    | -      | ○     | -      | -      | -    | -      | -      | -      | 14                  | -20~75<br>-40~85    | QFP-100<br>TQFP-100  | 数字电视、VTR DVC、音响、家电应用、数码相机、游戏音频设备、遥控器、办公自动设备、PC 周边(扩展内存、输入、输出)、通讯设备、电话、FA Power source, 家用信息应用, 无线电, 电力仪表 |      |
|             |          |          | H8S/2266  | 128K     | -   | -      | -        | 8K                         |                              | -          | -      | -        | -        | -         | -      | 78       | -   | ○       | -     | -      | -         | -      | 10位×10 | 8位×2       | 8  | 8   | 8      | ○    | ○    | ○      | -     | ○      | -      | -    | -      | -      | -      | 14                  | -20~75<br>-40~85    | QFP-100<br>TQFP-100  | 数字电视、VTR DVC、音响、家电应用、数码相机、游戏音频设备、遥控器、办公自动设备、PC 周边(扩展内存、输入、输出)、通讯设备、电话、FA Power source, 家用信息应用, 无线电, 电力仪表 |      |
| H8S/2268    |          |          | 256K      | -        | -   | -      | 16K      | -                          |                              | -          | -      | -        | -        | -         | 78     | -        | ○   | -       | -     | -      | -         | 10位×10 | 8位×2   | 8          | 8  | 8   | ○      | ○    | ○    | -      | ○     | -      | -      | -    | -      | -      | 14     | -20~75<br>-40~85    | QFP-100<br>TQFP-100 | 数字电视、VTR DVC、音响、家电应用、数码相机、游戏音频设备、遥控器、办公自动设备、PC 周边(扩展内存、输入、输出)、通讯设备、电话、FA Power source, 家用信息应用, 无线电, 电力仪表 |  |      |

# R8C族MCU命名规则



- 1 瑞萨新MCU代码
- 2 器件区分  
ex)F:闪存
- 3 瑞萨R8C族代码
- 4 瑞萨R8C群代码  
ex)R8C/1B, R8C/25
- 5 存储器变化(仅R8C系列)  
0:2KB    1:4KB    2:8KB    3:12KB    4:16KB  
5:24KB    6:32KB    7:48KB    8:64KB  
A:96KB    C:128KB
- 6 (-):标准版本  
S :低电压版本  
A :R8C/3x的新增功能
- 7 代码2  
ex)    J    -40~85℃    汽车  
         K    -40~125℃    汽车  
         D    -40~85℃    工业  
N或无标记    -20~85℃    消费类电子
- 8 ROM型号(仅用于出厂编程的MCU)
- 9 FP:LQFP, SP:LSSOP, NP:QFN  
FA:LQFP, DD:SDIP, LG:FLGA
- 10 U0:无铅产品, 盘装或管装出货  
W4:无铅产品, 卷带出货  
无标记:含铅产品, 盘装或管装出货  
T4:含铅产品, 卷带出货  
ES:工程样品



R8C族1x系列

| 群           | 型号          | 存储器         |            |                                  | 最高工作频率/工作电压                      | 最小指令执行时间(ns) | I/O端口 | 时钟  |                |            | 电压检测                             |                                  | AD转换     | DA转换 | 定时器功能 |          |            |                                  |                                  |          |        | 串行接口②  |          |               |          | 封装(mm)                           | 应用领域     |      |          |                |                |         |                                     |   |   |   |        |          |        |         |                                     |        |          |          |        |          |        |          |                                     |
|-------------|-------------|-------------|------------|----------------------------------|----------------------------------|--------------|-------|-----|----------------|------------|----------------------------------|----------------------------------|----------|------|-------|----------|------------|----------------------------------|----------------------------------|----------|--------|--------|----------|---------------|----------|----------------------------------|----------|------|----------|----------------|----------------|---------|-------------------------------------|---|---|---|--------|----------|--------|---------|-------------------------------------|--------|----------|----------|--------|----------|--------|----------|-------------------------------------|
|             |             | ROM(bytes)① | RAM(bytes) | 数据闪存(bytes)                      |                                  |              |       | PLL | 副时钟(32.768kHz) | 内部振荡器(Hz)③ | 上电复位(POR)                        | 低电压检测(LVD)                       |          |      | 8位    | 16位      | 输入捕捉       | 输出比较                             | PWM输出                            | 事件计数器    | 二相编码输入 | 三相变频控制 | 看门狗定时器   | 串行接口(时钟同步/异步) | 时钟异步串行接口 |                                  |          | FS总线 | SSU/特殊串口 | CAN模块(Channel) | LIN模块(Channel) | 外部中断引脚数 | 工作温度范围(°C)                          |   |   |   |        |          |        |         |                                     |        |          |          |        |          |        |          |                                     |
| R8C/1B      | R5F211B2DD  | 8K          | 512        | 1Kx2                             | 20MHz/3.0~5.5V<br>10MHz/2.7~5.5V | 50@20MHz     | 16    | -   | -              | 低速<br>125k | ○                                | ○                                | ○        | -    | 2     | 1        | 1          | 1                                | 1                                | 1        | 1      | 1      | 1        | ○             | 1        | 1                                | ○        | -    | -        | 7              | -20~85         | SDIP-20 | 家电、办公设备、普通产业、住宅设备(传感器、安全设备)、音频、便携设备 |   |   |   |        |          |        |         |                                     |        |          |          |        |          |        |          |                                     |
|             | ○           |             |            |                                  |                                  |              |       |     |                |            | ○                                | ○                                | -        | 2    | 1     | 1        | 1          | 1                                | 1                                | 1        | 1      | ○      | 1        | 1             | ○        | -                                | -        | 7    | -40~85   | LSSOP-20       |                |         |                                     |   |   |   |        |          |        |         |                                     |        |          |          |        |          |        |          |                                     |
|             | ○           |             |            |                                  |                                  |              |       |     |                |            | ○                                | ○                                | -        | 2    | 1     | 1        | 1          | 1                                | 1                                | 1        | 1      | ○      | 1        | 1             | ○        | -                                | -        | 7    | -20~85   | HWQFN-28       |                |         |                                     |   |   |   |        |          |        |         |                                     |        |          |          |        |          |        |          |                                     |
|             | ○           |             |            |                                  |                                  |              |       |     |                |            | ○                                | ○                                | -        | 2    | 1     | 1        | 1          | 1                                | 1                                | 1        | 1      | ○      | 1        | 1             | ○        | -                                | -        | 7    | -20~85   | LSSOP-20       |                |         |                                     |   |   |   |        |          |        |         |                                     |        |          |          |        |          |        |          |                                     |
|             | R5F211B3DD  | 12K         | 768        |                                  |                                  |              |       |     |                |            | 1Kx2                             | 20MHz/3.0~5.5V<br>10MHz/2.7~5.5V | 50@20MHz | 16   | -     | -        | 低速<br>125k | ○                                | ○                                | ○        | -      | 2      | 1        | 1             | 1        | 1                                | 1        | 1    | 1        | 1              | ○              | 1       |                                     | 1 | ○ | - | -      | 7        | -20~85 | SDIP-20 | 家电、办公设备、普通产业、住宅设备(传感器、安全设备)、音频、便携设备 |        |          |          |        |          |        |          |                                     |
|             | ○           |             |            |                                  |                                  |              |       |     |                |            |                                  |                                  |          |      |       |          |            | ○                                | ○                                | -        | 2      | 1      | 1        | 1             | 1        | 1                                | 1        | 1    | ○        | 1              | 1              | ○       |                                     | - | - | 7 | -20~85 | LSSOP-20 |        |         |                                     |        |          |          |        |          |        |          |                                     |
|             | ○           |             |            |                                  |                                  |              |       |     |                |            |                                  |                                  |          |      |       |          |            | ○                                | ○                                | -        | 2      | 1      | 1        | 1             | 1        | 1                                | 1        | 1    | ○        | 1              | 1              | ○       |                                     | - | - | 7 | -40~85 | LSSOP-20 |        |         |                                     |        |          |          |        |          |        |          |                                     |
|             | ○           |             |            |                                  |                                  |              |       |     |                |            |                                  |                                  |          |      |       |          |            | ○                                | ○                                | -        | 2      | 1      | 1        | 1             | 1        | 1                                | 1        | 1    | ○        | 1              | 1              | ○       |                                     | - | - | 7 | -20~85 | HWQFN-28 |        |         |                                     |        |          |          |        |          |        |          |                                     |
|             | R5F211B3DSD | 16K         | 1K         |                                  |                                  |              |       |     |                |            |                                  |                                  |          |      |       |          |            | 1Kx2                             | 20MHz/3.0~5.5V<br>10MHz/2.7~5.5V | 50@20MHz | 16     | -      | -        | 高速<br>8M      | ○        | ○                                | ○        | -    | 2        | 1              | 1              | 1       |                                     | 1 | 1 | 1 | 1      | 1        | ○      | 1       |                                     | 1      | ○        | -        | -      | 7        | -20~85 | LSSOP-20 | 家电、办公设备、普通产业、住宅设备(传感器、安全设备)、音频、便携设备 |
|             | ○           |             |            |                                  |                                  |              |       |     |                |            |                                  |                                  |          |      |       |          |            |                                  |                                  |          |        |        |          |               | ○        | ○                                | -        | 2    | 1        | 1              | 1              | 1       |                                     | 1 | 1 | 1 | ○      | 1        | 1      | ○       |                                     | -      | -        | 7        | -20~85 | LSSOP-20 |        |          |                                     |
|             | ○           |             |            |                                  |                                  |              |       |     |                |            |                                  |                                  |          |      |       |          |            |                                  |                                  |          |        |        |          |               | ○        | ○                                | -        | 2    | 1        | 1              | 1              | 1       |                                     | 1 | 1 | 1 | ○      | 1        | 1      | ○       |                                     | -      | -        | 7        | -20~85 | SDIP-20  |        |          |                                     |
|             | ○           |             |            |                                  |                                  |              |       |     |                |            |                                  |                                  |          |      |       |          |            |                                  |                                  |          |        |        |          |               | ○        | ○                                | -        | 2    | 1        | 1              | 1              | 1       |                                     | 1 | 1 | 1 | ○      | 1        | 1      | ○       |                                     | -      | -        | 7        | -40~85 | LSSOP-20 |        |          |                                     |
|             | R5F211B4DD  | 16K         | 1K         |                                  |                                  |              |       |     |                |            |                                  |                                  |          |      |       |          |            |                                  |                                  |          |        |        |          |               | 1Kx2     | 20MHz/3.0~5.5V<br>10MHz/2.7~5.5V | 50@20MHz | 16   | -        | -              | 高速<br>8M       | ○       |                                     | ○ | ○ | - | 2      | 1        | 1      | 1       |                                     | 1      | 1        | 1        | 1      | 1        | ○      | 1        |                                     |
| ○           | ○           |             |            | ○                                | -                                | 2            | 1     | 1   | 1              | 1          |                                  |                                  |          |      |       |          |            |                                  |                                  |          |        |        |          |               |          |                                  |          |      |          |                |                | 1       | 1                                   | 1 | ○ | 1 | 1      | ○        | -      | -       |                                     | 7      | -20~85   | LSSOP-20 |        |          |        |          |                                     |
| ○           | ○           |             |            | ○                                | -                                | 2            | 1     | 1   | 1              | 1          |                                  |                                  |          |      |       |          |            |                                  |                                  |          |        |        |          |               |          |                                  |          |      |          |                |                | 1       | 1                                   | 1 | ○ | 1 | 1      | ○        | -      | -       |                                     | 7      | -20~85   | HWQFN-28 |        |          |        |          |                                     |
| ○           | ○           |             |            | ○                                | -                                | 2            | 1     | 1   | 1              | 1          |                                  |                                  |          |      |       |          |            |                                  |                                  |          |        |        |          |               |          |                                  |          |      |          |                |                | 1       | 1                                   | 1 | ○ | 1 | 1      | ○        | -      | -       |                                     | 7      | -40~85   | LSSOP-20 |        |          |        |          |                                     |
| R5F211B4DSD | 16K         | 1K          | 1Kx2       | 20MHz/3.0~5.5V<br>10MHz/2.7~5.5V | 50@20MHz                         | 16           | -     | -   | 高速<br>8M       | ○          |                                  |                                  |          |      |       |          |            |                                  |                                  |          |        |        |          |               |          |                                  |          |      |          |                |                | ○       | ○                                   | - | 2 | 1 | 1      | 1        | 1      | 1       |                                     | 1      | 1        | 1        | ○      | 1        | 1      | ○        |                                     |
| ○           |             |             |            |                                  |                                  |              |       |     |                | ○          | ○                                | -                                | 2        | 1    | 1     | 1        | 1          |                                  |                                  |          |        |        |          |               |          |                                  |          |      |          |                |                | 1       | 1                                   | 1 | ○ | 1 | 1      | ○        | -      | -       | 7                                   | -20~85 | LSSOP-20 |          |        |          |        |          |                                     |
| ○           |             |             |            |                                  |                                  |              |       |     |                | ○          | ○                                | -                                | 2        | 1    | 1     | 1        | 1          |                                  |                                  |          |        |        |          |               |          |                                  |          |      |          |                |                | 1       | 1                                   | 1 | ○ | 1 | 1      | ○        | -      | -       | 7                                   | -20~85 | HWQFN-28 |          |        |          |        |          |                                     |
| ○           |             |             |            |                                  |                                  |              |       |     |                | ○          | ○                                | -                                | 2        | 1    | 1     | 1        | 1          |                                  |                                  |          |        |        |          |               |          |                                  |          |      |          |                |                | 1       | 1                                   | 1 | ○ | 1 | 1      | ○        | -      | -       | 7                                   | -40~85 | LSSOP-20 |          |        |          |        |          |                                     |
| R5F211B4NP  | 16K         | 1K          |            |                                  |                                  |              |       |     |                | 1Kx2       | 20MHz/3.0~5.5V<br>10MHz/2.7~5.5V | 50@20MHz                         | 16       | -    | -     | 高速<br>8M | ○          |                                  |                                  |          |        |        |          |               |          |                                  |          |      |          |                |                | ○       | ○                                   | - | 2 | 1 | 1      | 1        | 1      | 1       | 1                                   | 1      | 1        | ○        | 1      | 1        | ○      | -        |                                     |
| ○           |             |             |            |                                  |                                  |              |       |     |                |            |                                  |                                  |          |      |       |          | ○          | ○                                | -                                | 2        | 1      | 1      | 1        | 1             |          |                                  |          |      |          |                |                | 1       | 1                                   | 1 | ○ | 1 | 1      | ○        | -      | -       | 7                                   | -20~85 | LSSOP-20 |          |        |          |        |          |                                     |
| ○           |             |             |            |                                  |                                  |              |       |     |                |            |                                  |                                  |          |      |       |          | ○          | ○                                | -                                | 2        | 1      | 1      | 1        | 1             |          |                                  |          |      |          |                |                | 1       | 1                                   | 1 | ○ | 1 | 1      | ○        | -      | -       | 7                                   | -20~85 | HWQFN-28 |          |        |          |        |          |                                     |
| ○           |             |             |            |                                  |                                  |              |       |     |                |            |                                  |                                  |          |      |       |          | ○          | ○                                | -                                | 2        | 1      | 1      | 1        | 1             |          |                                  |          |      |          |                |                | 1       | 1                                   | 1 | ○ | 1 | 1      | ○        | -      | -       | 7                                   | -40~85 | LSSOP-20 |          |        |          |        |          |                                     |
| R5F211B4SP  | 16K         | 1K          |            |                                  |                                  |              |       |     |                |            |                                  |                                  |          |      |       |          | 1Kx2       | 20MHz/3.0~5.5V<br>10MHz/2.7~5.5V | 50@20MHz                         | 16       | -      | -      | 高速<br>8M | ○             |          |                                  |          |      |          |                |                | ○       | ○                                   | - | 2 | 1 | 1      | 1        | 1      | 1       | 1                                   | 1      | 1        | ○        | 1      | 1        | ○      | -        | -                                   |
| ○           |             |             |            |                                  |                                  |              |       |     |                |            |                                  |                                  |          |      |       |          |            |                                  |                                  |          |        |        |          | ○             | ○        | -                                | 2        | 1    | 1        | 1              | 1              | 1       | 1                                   | 1 | ○ | 1 | 1      | ○        | -      | -       | 7                                   | -20~85 | LSSOP-20 |          |        |          |        |          |                                     |
| ○           |             |             |            |                                  |                                  |              |       |     |                |            |                                  |                                  |          |      |       |          |            |                                  |                                  |          |        |        |          | ○             | ○        | -                                | 2        | 1    | 1        | 1              | 1              | 1       | 1                                   | 1 | ○ | 1 | 1      | ○        | -      | -       | 7                                   | -20~85 | HWQFN-28 |          |        |          |        |          |                                     |
| ○           |             |             |            |                                  |                                  |              |       |     |                |            |                                  |                                  |          |      |       |          |            |                                  |                                  |          |        |        |          | ○             | ○        | -                                | 2        | 1    | 1        | 1              | 1              | 1       | 1                                   | 1 | ○ | 1 | 1      | ○        | -      | -       | 7                                   | -40~85 | LSSOP-20 |          |        |          |        |          |                                     |

注：  
 ① R8C/1x芯片的ROM类型均为Flash。  
 ② 串行接口(时钟同步/异步)代表此接口既可以做时钟同步串行接口使用，也可以做时钟异步串行接口使用。时钟同步串行接口指此接口只能用做时钟同步串行接口使用  
 ③ 此处列出的均为典型值，详细信息请参照各个芯片的使用手册。



R8C族2x系列

| 群           | 型号                               | 存储器         |            |             | 最高工作频率/工作电压                      | 最小指令执行时间(ns) | I/O端口 | 时钟  |            |                         | 电压检测      |            |      | AD转换   | 定时器位数 |     | 定时器功能 |      |       |       |        |        | 串行接口②  |               |      |          | 封装(mm)  | 应用领域 |                |                |         |            |         |       |
|-------------|----------------------------------|-------------|------------|-------------|----------------------------------|--------------|-------|-----|------------|-------------------------|-----------|------------|------|--------|-------|-----|-------|------|-------|-------|--------|--------|--------|---------------|------|----------|---------|------|----------------|----------------|---------|------------|---------|-------|
|             |                                  | ROM(bytes)① | RAM(bytes) | 数据闪存(bytes) |                                  |              |       | PLL | 内部振荡器(Hz)③ | 振荡停止检测                  | 上电复位(POR) | 低电压检测(LVD) | DA转换 |        | 8位    | 16位 | 输入捕捉  | 输出比较 | PWM输出 | 事件计数器 | 二相编码输入 | 三相变频控制 | 看门狗定时器 | 串行接口(时钟同步/异步) | IC总线 | SSU/特殊串口 |         |      | CAN模块(Channel) | LIN模块(Channel) | 外部中断引脚数 | 工作温度范围(°C) |         |       |
| R8C/20      | R5F21206JFP                      | 32K         | 2K         | -           | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V | 50@20MHz     | 44    | -   | -          | 低速<br>125k<br>高速<br>40M | ○         | ○          | ○    | 10位x12 | -     | 3   | 2     | 8    | 9     | 7     | 1      | -      | 1      | ○             | 1    | 1        | ○       | ○    | -              | ○              | 8       | -40-85     | LQFP-48 | 汽车、其他 |
|             | R5F21206KFP                      |             |            |             | 16MHz/3.0-5.5V<br>10MHz/2.7-5.5V | 62.5@16MHz   |       | -   | -          |                         | ○         | ○          | ○    |        | -     | 3   | 2     | 8    | 9     | 7     | 1      | -      | 1      | ○             | 1    | 1        | ○       | ○    | -              | ○              | 8       | -40-125    |         |       |
|             | R5F21207JFP                      | 48K         | 2.5K       |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V | 50@20MHz     |       | -   | -          |                         | ○         | ○          | ○    |        | -     | 3   | 2     | 8    | 9     | 7     | 1      | -      | 1      | ○             | 1    | 1        | ○       | ○    | -              | ○              | 8       | -40-85     |         |       |
|             | R5F21207KFP                      |             |            |             | 16MHz/3.0-5.5V<br>10MHz/2.7-5.5V | 62.5@16MHz   |       | -   | -          |                         | ○         | ○          | ○    |        | -     | 3   | 2     | 8    | 9     | 7     | 1      | -      | 1      | ○             | 1    | 1        | ○       | ○    | -              | ○              | 8       | -40-125    |         |       |
|             | R5F21208JFP                      | 64K         | 3K         |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V | 50@20MHz     |       | -   | -          |                         | ○         | ○          | ○    |        | -     | 3   | 2     | 8    | 9     | 7     | 1      | -      | 1      | ○             | 1    | 1        | ○       | ○    | -              | ○              | 8       | -40-85     |         |       |
|             | R5F21208KFP                      |             |            |             | 16MHz/3.0-5.5V<br>10MHz/2.7-5.5V | 62.5@16MHz   |       | -   | -          |                         | ○         | ○          | ○    |        | -     | 3   | 2     | 8    | 9     | 7     | 1      | -      | 1      | ○             | 1    | 1        | ○       | ○    | -              | ○              | 8       | -40-125    |         |       |
|             | R5F2120AJFP                      | 96K         | 5K         |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V | 50@20MHz     |       | -   | -          |                         | ○         | ○          | ○    |        | -     | 3   | 2     | 8    | 9     | 7     | 1      | -      | 1      | ○             | 1    | 1        | ○       | ○    | -              | ○              | 8       | -40-85     |         |       |
|             | R5F2120AKFP                      |             |            |             | 16MHz/3.0-5.5V<br>10MHz/2.7-5.5V | 62.5@16MHz   |       | -   | -          |                         | ○         | ○          | ○    |        | -     | 3   | 2     | 8    | 9     | 7     | 1      | -      | 1      | ○             | 1    | 1        | ○       | ○    | -              | ○              | 8       | -40-125    |         |       |
|             | R5F2120CJFP                      | 128K        | 6K         |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V | 50@20MHz     |       | -   | -          |                         | ○         | ○          | ○    |        | -     | 3   | 2     | 8    | 9     | 7     | 1      | -      | 1      | ○             | 1    | 1        | ○       | ○    | -              | ○              | 8       | -40-85     |         |       |
| R5F2120CKFP | 16MHz/3.0-5.5V<br>10MHz/2.7-5.5V |             |            | 62.5@16MHz  | -                                | -            | ○     | ○   | ○          | -                       | 3         | 2          | 8    | 9      | 7     | 1   | -     | 1    | ○     | 1     | 1      | ○      | ○      | -             | ○    | 8        | -40-125 |      |                |                |         |            |         |       |
| R8C/21      | R5F21216JFP                      | 32K         | 2K         | 1Kx2        | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V | 50@20MHz     | 44    | -   | -          | 低速<br>125k<br>高速<br>40M | ○         | ○          | ○    | 10位x12 | -     | 3   | 2     | 8    | 9     | 7     | 1      | -      | 1      | ○             | 1    | 1        | ○       | ○    | -              | ○              | 8       | -40-85     | LQFP-48 | 汽车、其他 |
|             | R5F21216KFP                      |             |            |             | 16MHz/3.0-5.5V<br>10MHz/2.7-5.5V | 62.5@16MHz   |       | -   | -          |                         | ○         | ○          | ○    |        | -     | 3   | 2     | 8    | 9     | 7     | 1      | -      | 1      | ○             | 1    | 1        | ○       | ○    | -              | ○              | 8       | -40-125    |         |       |
|             | R5F21217JFP                      | 48K         | 2.5K       |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V | 50@20MHz     |       | -   | -          |                         | ○         | ○          | ○    |        | -     | 3   | 2     | 8    | 9     | 7     | 1      | -      | 1      | ○             | 1    | 1        | ○       | ○    | -              | ○              | 8       | -40-85     |         |       |
|             | R5F21217KFP                      |             |            |             | 16MHz/3.0-5.5V<br>10MHz/2.7-5.5V | 62.5@16MHz   |       | -   | -          |                         | ○         | ○          | ○    |        | -     | 3   | 2     | 8    | 9     | 7     | 1      | -      | 1      | ○             | 1    | 1        | ○       | ○    | -              | ○              | 8       | -40-125    |         |       |
|             | R5F21218JFP                      | 64K         | 3K         |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V | 50@20MHz     |       | -   | -          |                         | ○         | ○          | ○    |        | -     | 3   | 2     | 8    | 9     | 7     | 1      | -      | 1      | ○             | 1    | 1        | ○       | ○    | -              | ○              | 8       | -40-85     |         |       |
|             | R5F21218KFP                      |             |            |             | 16MHz/3.0-5.5V<br>10MHz/2.7-5.5V | 62.5@16MHz   |       | -   | -          |                         | ○         | ○          | ○    |        | -     | 3   | 2     | 8    | 9     | 7     | 1      | -      | 1      | ○             | 1    | 1        | ○       | ○    | -              | ○              | 8       | -40-125    |         |       |
|             | R5F2121AJFP                      | 96K         | 5K         |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V | 50@20MHz     |       | -   | -          |                         | ○         | ○          | ○    |        | -     | 3   | 2     | 8    | 9     | 7     | 1      | -      | 1      | ○             | 1    | 1        | ○       | ○    | -              | ○              | 8       | -40-85     |         |       |
|             | R5F2121AKFP                      |             |            |             | 16MHz/3.0-5.5V<br>10MHz/2.7-5.5V | 62.5@16MHz   |       | -   | -          |                         | ○         | ○          | ○    |        | -     | 3   | 2     | 8    | 9     | 7     | 1      | -      | 1      | ○             | 1    | 1        | ○       | ○    | -              | ○              | 8       | -40-125    |         |       |
|             | R5F2121CJFP                      | 128K        | 6K         |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V | 50@20MHz     |       | -   | -          |                         | ○         | ○          | ○    |        | -     | 3   | 2     | 8    | 9     | 7     | 1      | -      | 1      | ○             | 1    | 1        | ○       | ○    | -              | ○              | 8       | -40-85     |         |       |
| R5F2121CKFP | 16MHz/3.0-5.5V<br>10MHz/2.7-5.5V |             |            | 62.5@16MHz  | -                                | -            | ○     | ○   | ○          | -                       | 3         | 2          | 8    | 9      | 7     | 1   | -     | 1    | ○     | 1     | 1      | ○      | ○      | -             | ○    | 8        | -40-125 |      |                |                |         |            |         |       |
| R8C/22      | R5F21226JFP                      | 32K         | 2K         | -           | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V | 50@20MHz     | 44    | -   | -          | 低速<br>125k<br>高速<br>40M | ○         | ○          | ○    | 10位x12 | -     | 3   | 2     | 8    | 9     | 7     | 1      | -      | 1      | ○             | 1    | 1        | ○       | ○    | ○              | 8              | -40-85  | LQFP-48    | 汽车、其他   |       |
|             | R5F21226DFP                      |             |            |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V | 50@21MHz     |       | -   | -          |                         | ○         | ○          | ○    |        | -     | 3   | 2     | 8    | 9     | 7     | 1      | -      | 1      | ○             | 1    | 1        | ○       | ○    | ○              | 8              | -40-85  |            |         |       |
|             | R5F21226KFP                      |             |            |             | 16MHz/3.0-5.5V<br>10MHz/2.7-5.5V | 62.5@16MHz   |       | -   | -          |                         | ○         | ○          | ○    |        | -     | 3   | 2     | 8    | 9     | 7     | 1      | -      | 1      | ○             | 1    | 1        | ○       | ○    | ○              | 8              | -40-125 |            |         |       |

R8C族2x系列

| 群            | 型号           | 存储器         |                                  |             | 最高工作频率/工作电压                                       | 最小指令执行时间(ns) | 时钟    |     |                 | 电压检测 | AD转换 | 定时器位数      |        | 定时器功能    |            |      |    |     | 串行接口② |      |       | 工作温度范围(°C) | 封装(mm) | 应用领域 |       |        |         |        |                   |                 |         |            |
|--------------|--------------|-------------|----------------------------------|-------------|---|--------------|-------|-----|-----------------|------|------|------------|--------|----------|------------|------|----|-----|-------|------|-------|------------|--------|------|-------|--------|---------|--------|-------------------|-----------------|---------|------------|
|              |              | ROM(bytes)① | RAM(bytes)                       | 数据闪存(bytes) |   |              | I/O接口 | PLL | 副时钟(32.768kHz)③ |      |      | 内部振荡器(Hz)③ | 振荡停止检测 | 上电复位(OR) | 低电压检测(LVD) | DA转换 | 8位 | 16位 | 输入捕捉  | 输出比较 | PWM输出 |            |        |      | 事件计数器 | 三相变频控制 | 三相变频控制  | 看门狗定时器 | 串行接口<br>(时钟同步/异步) | 时钟异步串行接口        | FSMC线   | SSU/特殊串行接口 |
| R8C/22       | R5F21227DFP  | 48K         | 2.5K                             | -           | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 50@20MHz     | -     | -   | 0               | 0    | 0    | -          | 3      | 2        | 8          | 9    | 7  | 1   | -     | 1    | 0     | 1          | 1      | 0    | 0     | 0      | 0       | 8      | -40-85            | LQFP-48         | 汽车、其他   |            |
|              | R5F21227KFP  |             |                                  |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 50@20MHz     | -     | -   | 0               | 0    | 0    | -          | 3      | 2        | 8          | 9    | 7  | 1   | -     | 1    | 0     | 1          | 1      | 0    | 0     | 0      | 0       | 8      | -40-85            |                 |         |            |
|              | R5F21227JFP  |             |                                  |             | 16MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 62.5@16MHz   | -     | -   | 0               | 0    | 0    | -          | 3      | 2        | 8          | 9    | 7  | 1   | -     | 1    | 0     | 1          | 1      | 0    | 0     | 0      | 0       | 8      | -40-125           |                 |         |            |
|              | R5F21228DFP  | 64K         | 3K                               |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 50@20MHz     | -     | -   | 0               | 0    | 0    | -          | 3      | 2        | 8          | 9    | 7  | 1   | -     | 1    | 0     | 1          | 1      | 0    | 0     | 0      | 0       | 8      | -40-85            |                 |         |            |
|              | R5F21228JFP  |             |                                  |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 50@20MHz     | -     | -   | 0               | 0    | 0    | -          | 3      | 2        | 8          | 9    | 7  | 1   | -     | 1    | 0     | 1          | 1      | 0    | 0     | 0      | 0       | 8      | -40-85            |                 |         |            |
|              | R5F21228KFP  |             |                                  |             | 16MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 62.5@16MHz   | -     | -   | 0               | 0    | 0    | -          | 3      | 2        | 8          | 9    | 7  | 1   | -     | 1    | 0     | 1          | 1      | 0    | 0     | 0      | 0       | 8      | -40-125           |                 |         |            |
|              | R5F2122AJFP  | 96K         | 5K                               |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 50@20MHz     | -     | -   | 0               | 0    | 0    | -          | 3      | 2        | 8          | 9    | 7  | 1   | -     | 1    | 0     | 1          | 1      | 0    | 0     | 0      | 0       | 8      | -40-85            |                 |         |            |
|              | R5F2122AKFP  |             |                                  |             | 16MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 62.5@16MHz   | -     | -   | 0               | 0    | 0    | -          | 3      | 2        | 8          | 9    | 7  | 1   | -     | 1    | 0     | 1          | 1      | 0    | 0     | 0      | 0       | 8      | -40-125           |                 |         |            |
|              | R5F2122CJFP  |             |                                  |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 50@20MHz     | -     | -   | 0               | 0    | 0    | -          | 3      | 2        | 8          | 9    | 7  | 1   | -     | 1    | 0     | 1          | 1      | 0    | 0     | 0      | 0       | 8      | -40-85            |                 |         |            |
| R5F2122CKFP  | 128K         | 6K          | 16MHz/3.0-5.5V<br>10MHz/2.7-5.5V | 62.5@16MHz  | -   | -            | 0     | 0   | 0               | -    | 3    | 2          | 8      | 9        | 7          | 1    | -  | 1   | 0     | 1    | 1     | 0          | 0      | 0    | 0     | 8      | -40-125 |        |                   |                 |         |            |
| R8C/23       | R5F21236DFP  | 32K         | 2K                               | 1Kx2        | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 50@20MHz     | -     | -   | 0               | 0    | 0    | -          | 3      | 2        | 8          | 9    | 7  | 1   | -     | 1    | 0     | 1          | 1      | 0    | 0     | 0      | 8       | -40-85 | LQFP-48           | 汽车、其他           |         |            |
|              | R5F21236JFP  |             |                                  |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 50@20MHz     | -     | -   | 0               | 0    | 0    | -          | 3      | 2        | 8          | 9    | 7  | 1   | -     | 1    | 0     | 1          | 1      | 0    | 0     | 0      | 0       | 8      |                   |                 | -40-85  |            |
|              | R5F21236KFP  |             |                                  |             | 16MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 62.5@16MHz   | -     | -   | 0               | 0    | 0    | -          | 3      | 2        | 8          | 9    | 7  | 1   | -     | 1    | 0     | 1          | 1      | 0    | 0     | 0      | 0       | 8      |                   |                 | -40-125 |            |
|              | R5F21237DFP  | 48K         | 2.5K                             |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 50@20MHz     | -     | -   | 0               | 0    | 0    | -          | 3      | 2        | 8          | 9    | 7  | 1   | -     | 1    | 0     | 1          | 1      | 0    | 0     | 0      | 0       | 8      |                   |                 | -40-85  |            |
|              | R5F21237JFP  |             |                                  |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 50@20MHz     | -     | -   | 0               | 0    | 0    | -          | 3      | 2        | 8          | 9    | 7  | 1   | -     | 1    | 0     | 1          | 1      | 0    | 0     | 0      | 0       | 8      |                   |                 | -40-85  |            |
|              | R5F21237KFP  |             |                                  |             | 16MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 62.5@16MHz   | -     | -   | 0               | 0    | 0    | -          | 3      | 2        | 8          | 9    | 7  | 1   | -     | 1    | 0     | 1          | 1      | 0    | 0     | 0      | 0       | 8      |                   |                 | -40-125 |            |
|              | R5F21238DFP  | 64K         | 3K                               |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 50@20MHz     | -     | -   | 0               | 0    | 0    | -          | 3      | 2        | 8          | 9    | 7  | 1   | -     | 1    | 0     | 1          | 1      | 0    | 0     | 0      | 0       | 8      |                   |                 | -40-85  |            |
|              | R5F21238JFP  |             |                                  |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 50@20MHz     | -     | -   | 0               | 0    | 0    | -          | 3      | 2        | 8          | 9    | 7  | 1   | -     | 1    | 0     | 1          | 1      | 0    | 0     | 0      | 0       | 8      |                   |                 | -40-85  |            |
|              | R5F21238KFP  |             |                                  |             | 16MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 62.5@16MHz   | -     | -   | 0               | 0    | 0    | -          | 3      | 2        | 8          | 9    | 7  | 1   | -     | 1    | 0     | 1          | 1      | 0    | 0     | 0      | 0       | 8      |                   |                 | -40-125 |            |
|              | R5F2123AJFP  | 96K         | 5K                               |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 50@20MHz     | -     | -   | 0               | 0    | 0    | -          | 3      | 2        | 8          | 9    | 7  | 1   | -     | 1    | 0     | 1          | 1      | 0    | 0     | 0      | 0       | 8      |                   |                 | -40-85  |            |
|              | R5F2123AKFP  |             |                                  |             | 16MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 62.5@16MHz   | -     | -   | 0               | 0    | 0    | -          | 3      | 2        | 8          | 9    | 7  | 1   | -     | 1    | 0     | 1          | 1      | 0    | 0     | 0      | 0       | 8      |                   |                 | -40-125 |            |
|              | R5F2123CJFP  |             |                                  |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 50@20MHz     | -     | -   | 0               | 0    | 0    | -          | 3      | 2        | 8          | 9    | 7  | 1   | -     | 1    | 0     | 1          | 1      | 0    | 0     | 0      | 0       | 8      |                   |                 | -40-85  |            |
|              | R5F2123CKFP  | 128K        | 6K                               |             | 16MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 62.5@16MHz   | -     | -   | 0               | 0    | 0    | -          | 3      | 2        | 8          | 9    | 7  | 1   | -     | 1    | 0     | 1          | 1      | 0    | 0     | 0      | 0       | 8      |                   |                 | -40-125 |            |
| R8C/24       | R5F21244SDFP | 16K         | 1K                               | -           | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V<br>5MHz/2.2-5.5V | 50@20MHz     | -     | 0   | 0               | 0    | -    | 3          | 2      | 8        | 9          | 7    | 1  | -   | 1     | 0    | 2     | -          | 0      | 0    | -     | 0      | 8       | -40-85 | LQFP-52           | 家电、办公设备、音频、普通民用 |         |            |
|              | R5F21244SNFP |             |                                  |             |   |              | 0     | 0   | 0               | -    | 3    | 2          | 8      | 9        | 7          | 1    | -  | 1   | 0     | 2    | -     | 0          | 0      | -    | 0     | 0      | -       | 0      |                   |                 | 8       | -20-85     |
|              | R5F21244SNLG |             |                                  |             |   |              | 0     | 0   | 0               | -    | 3    | 2          | 8      | 9        | 7          | 1    | -  | 1   | 0     | 2    | -     | 0          | 0      | -    | 0     | 0      | -       | 0      |                   |                 | 8       | -20-85     |
|              | R5F21245SDFP | 24K         | 2K                               |             |   |              | 0     | 0   | 0               | -    | 3    | 2          | 8      | 9        | 7          | 1    | -  | 1   | 0     | 2    | -     | 0          | 0      | -    | 0     | 0      | -       | 0      |                   |                 | 8       | -40-85     |
|              | R5F21245SNFP |             |                                  |             |   |              | 0     | 0   | 0               | -    | 3    | 2          | 8      | 9        | 7          | 1    | -  | 1   | 0     | 2    | -     | 0          | 0      | -    | 0     | 0      | -       | 0      |                   |                 | 8       | -40-85     |
|              | R5F21245SNLG |             |                                  |             |   |              | 0     | 0   | 0               | -    | 3    | 2          | 8      | 9        | 7          | 1    | -  | 1   | 0     | 2    | -     | 0          | 0      | -    | 0     | 0      | -       | 0      |                   |                 | 8       | -20-85     |
|              | R5F21246SDFP | 32K         | 2K                               |             |   |              | 0     | 0   | 0               | -    | 3    | 2          | 8      | 9        | 7          | 1    | -  | 1   | 0     | 2    | -     | 0          | 0      | -    | 0     | 0      | -       | 0      |                   |                 | 8       | -40-85     |
|              | R5F21246SNFP |             |                                  |             |   |              | 0     | 0   | 0               | -    | 3    | 2          | 8      | 9        | 7          | 1    | -  | 1   | 0     | 2    | -     | 0          | 0      | -    | 0     | 0      | -       | 0      |                   |                 | 8       | -20-85     |
|              | R5F21246SNLG |             |                                  |             |   |              | 0     | 0   | 0               | -    | 3    | 2          | 8      | 9        | 7          | 1    | -  | 1   | 0     | 2    | -     | 0          | 0      | -    | 0     | 0      | -       | 0      |                   |                 | 8       | -20-85     |
|              | R5F21247SDFP | 48K         | 2.5K                             |             |   |              | 0     | 0   | 0               | -    | 3    | 2          | 8      | 9        | 7          | 1    | -  | 1   | 0     | 2    | -     | 0          | 0      | -    | 0     | 0      | -       | 0      |                   |                 | 8       | -40-85     |
|              | R5F21247SNFP |             |                                  |             |   |              | 0     | 0   | 0               | -    | 3    | 2          | 8      | 9        | 7          | 1    | -  | 1   | 0     | 2    | -     | 0          | 0      | -    | 0     | 0      | -       | 0      |                   |                 | 8       | -20-85     |
|              | R5F21248SDFP |             |                                  |             |   |              | 64K   | 3K  | 0               | 0    | 0    | -          | 3      | 2        | 8          | 9    | 7  | 1   | -     | 1    | 0     | 2          | -      | 0    | 0     | -      | 0       | 0      |                   |                 | -       | 0          |
|              | R5F21248SNFP | 0           | 0                                |             |   |              |       |     | 0               | -    | 3    | 2          | 8      | 9        | 7          | 1    | -  | 1   | 0     | 2    | -     | 0          | 0      | -    | 0     | 0      | -       | 0      |                   |                 | 8       | -20-85     |
| R5F21248SNLG | 0            | 0           | 0                                | -           | 3   | 2            |       |     | 8               | 9    | 7    | 1          | -      | 1        | 0          | 2    | -  | 0   | 0     | -    | 0     | 0          | -      | 0    | 8     | -20-85 |         |        |                   |                 |         |            |

## R8C族2x系列

| 群            | 型号           | 存储器         |            |            | 最高工作频率/工作电压                                       | 最小指令执行时间(ns) | I/O端口 | 时钟  |                |            | 电压检测   |           |            | AD转换   | DA转换 | 定时器位数 |     | 定时器功能 |      |       |       |        |        | 串行接口②  |               |          |                    | 工作温度范围(°C) | 封装(mm) | 应用领域 |           |   |                |                 |     |    |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |          |         |                 |      |
|--------------|--------------|-------------|------------|------------|---|--------------|-------|-----|----------------|------------|--------|-----------|------------|--------|------|-------|-----|-------|------|-------|-------|--------|--------|--------|---------------|----------|--------------------|------------|--------|------|-----------|---|----------------|-----------------|-----|----|---|---|---|---|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|----------|---------|-----------------|------|
|              |              | ROM(bytes)① | RAM(bytes) | 数据区(bytes) |   |              |       | PLL | 副时钟(32.768kHz) | 内部振荡器(Hz)③ | 振荡停止检测 | 上电复位(POR) | 低电压检测(LVD) |        |      | 8位    | 16位 | 输入捕捉  | 输出比较 | PWM输出 | 事件计数器 | 三相编码输入 | 三相变频控制 | 看门狗定时器 | 串行接口(时钟同步/异步) | 时钟异步串行接口 | I <sup>2</sup> C总线 |            |        |      | SSU特殊串行接口 | CAN(模数Channel)                                    | LIN(模数Channel) | 外部中断引脚数         |     |    |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |          |         |                 |      |
| R8C/25       | R5F21254SDFP | 16K         | 1K         | 1Kx2       | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V<br>5MHz/2.2-5.5V | 50@20MHz     | 44    | -   | ○              | -          | ○      | ○         | ○          | 10位x12 | -    | 3     | 2   | 8     | 9    | 7     | 1     | -      | 1      | ○      | 2             | -        | ○                  | ○          | -      | ○    | 8         | -40-85  | LQFP-52        | 家电、办公设备、音频、普通民用 |     |    |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |          |         |                 |      |
|              | R5F21254SNFP |             |            |            |   |              |       |     |                |            |        |           |            |        |      |       |     |       |      |       |       |        |        |        |               |          |                    |            |        |      |           |   |                |                 | 24K | 2K | - | ○ | - | ○ | -      | ○ | - | ○ | - | ○ | - | ○ | - | ○ | - | ○ | - | ○ | - | ○ | - | ○      | 8        | -20-85  | LQFP-52         |      |
|              | R5F21254SNLG |             |            |            |   |              |       |     |                |            |        |           |            |        |      |       |     |       |      |       |       |        |        |        |               |          |                    |            |        |      |           |   |                |                 |     |    |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |          |         |                 |      |
|              | R5F21255SDFP | 32K         | 2K         |            |   |              |       |     |                |            |        |           |            |        |      |       |     |       |      |       |       |        |        |        |               |          |                    |            |        |      |           |   |                |                 | -   | ○  | - | ○ | - | ○ | -      | ○ | - | ○ | - | ○ | - | ○ | - | ○ | - | ○ | - | ○ | - | ○ | 8 | -40-85 | LQFP-52  |         |                 |      |
|              | R5F21255SNFP |             |            |            |   |              |       |     |                |            |        |           |            |        |      |       |     |       |      |       |       |        |        |        |               |          |                    |            |        |      |           |   |                |                 |     |    |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |          |         | 48K             | 2.5K |
|              | R5F21256SDFP | 64K         | 3K         |            |   |              |       |     |                |            |        |           |            |        |      |       |     |       |      |       |       |        |        |        |               |          |                    |            |        |      |           |   |                |                 | -   | ○  | - | ○ | - | ○ | -      | ○ | - | ○ | - | ○ | - | ○ | - | ○ | - | ○ | - | ○ | - | ○ | 8 | -40-85 | LQFP-52  |         |                 |      |
|              | R5F21256SNFP |             |            |            |   |              |       |     |                |            |        |           |            |        |      |       |     |       |      |       |       |        |        |        |               |          |                    |            |        |      |           |   |                |                 |     |    |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |          |         | 64K             | 3K   |
|              | R5F21256SNLG | 64K         | 3K         |            |   |              |       |     |                |            |        |           |            |        |      |       |     |       |      |       |       |        |        |        |               |          |                    |            |        |      |           |   |                |                 | -   | ○  | - | ○ | - | ○ | -      | ○ | - | ○ | - | ○ | - | ○ | - | ○ | - | ○ | - | ○ | - | ○ | 8 | -20-85 | TFLGA-64 |         |                 |      |
|              | R5F21257SDFP |             |            |            |   |              |       |     |                |            |        |           |            |        |      |       |     |       |      |       |       |        |        |        |               |          |                    |            |        |      |           |   |                |                 |     |    |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |          |         | 64K             | 3K   |
|              | R5F21257SNFP | 64K         | 3K         |            |   |              |       |     |                |            |        |           |            |        |      |       |     |       |      |       |       |        |        |        |               |          |                    |            |        |      |           |   |                |                 | -   | ○  | - | ○ | - | ○ | -      | ○ | - | ○ | - | ○ | - | ○ | - | ○ | - | ○ | - | ○ | - | ○ | 8 | -20-85 | LQFP-52  |         |                 |      |
|              | R5F21258SDFP |             |            |            |   |              |       |     |                |            |        |           |            |        |      |       |     |       |      |       |       |        |        |        |               |          |                    |            |        |      |           |   |                |                 |     |    |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |          |         | 64K             | 3K   |
| R5F21258SNFP | 64K          | 3K          | -          | ○          | -   | ○            | -     | ○   | -              | ○          | -      | ○         | -          | ○      | -    | ○     | -   | ○     | -    | ○     | -     | ○      | -      | ○      | 8             | -20-85   | LQFP-52            |            |        |      |           |   |                |                 |     |    |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |          |         |                 |      |
| R5F21262SDFP |              |             |            |            |   |              |       |     |                |            |        |           |            |        |      |       |     |       |      |       |       |        |        |        |               |          |                    |            | 8K     | 512  | -         | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V<br>5MHz/2.2-5.5V | 50@20MHz       | 28              | -   | ○  | - | ○ | ○ | ○ | 10位x12 | - | 3 | 1 | 4 | 5 | 4 | 1 | - | - | ○ | 2 | - | ○ | ○ | - | ○ | 7      | -40-85   | LQFP-32 | 家电、办公设备、音频、普通民用 |      |
| R5F21262SNFP | 16K          | 1K          | -          | ○          | -   | ○            | -     | ○   | -              | ○          | -      | ○         | -          | ○      | -    | ○     | -   | ○     | -    | ○     | -     | ○      | -      | ○      | -             | ○        | 7                  | -20-85     |        |      |           |   |                |                 |     |    |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |          |         |                 |      |
| R5F21264JFP  |              |             |            |            |   |              |       |     |                |            |        |           |            |        |      |       |     |       |      |       |       |        |        |        |               |          |                    |            | 32K    | 1.5K |           |   |                |                 |     |    |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |          |         |                 |      |
| R5F21264KFP  | 32K          | 1.5K        | -          | ○          | -   | ○            | -     | ○   | -              | ○          | -      | ○         | -          | ○      | -    | ○     | -   | ○     | -    | ○     | -     | ○      | -      | ○      | 7             | -40-125  |                    |            |        |      |           |   |                |                 |     |    |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |          |         |                 |      |
| R5F21264SDFP |              |             |            |            |   |              |       |     |                |            |        |           |            |        |      |       |     |       |      |       |       |        |        |        |               |          |                    | 32K        | 1.5K   | -    |           |   |                |                 |     |    |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |          |         |                 | ○    |
| R5F21264SNFP | 32K          | 1.5K        | -          | ○          | -   | ○            | -     | ○   | -              | ○          | -      | ○         | -          | ○      | -    | ○     | -   | ○     | -    | ○     | -     | ○      | -      | ○      | 7             | -20-85   |                    |            |        |      |           |   |                |                 |     |    |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |          |         |                 |      |
| R5F21265SDFP |              |             |            |            |   |              |       |     |                |            |        |           |            |        |      |       |     |       |      |       |       |        |        |        |               |          |                    | 32K        | 1.5K   | -    |           |   |                |                 |     |    |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |          |         |                 | ○    |
| R5F21265SNFP | 32K          | 1.5K        | -          | ○          | -   | ○            | -     | ○   | -              | ○          | -      | ○         | -          | ○      | -    | ○     | -   | ○     | -    | ○     | -     | ○      | -      | ○      | 7             | -20-85   |                    |            |        |      |           |   |                |                 |     |    |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |          |         |                 |      |
| R5F21266JFP  |              |             |            |            |   |              |       |     |                |            |        |           |            |        |      |       |     |       |      |       |       |        |        |        |               |          |                    | 32K        | 1.5K   | -    |           |   |                |                 |     |    |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |          |         |                 | ○    |
| R5F21266KFP  | 32K          | 1.5K        | -          | ○          | -   | ○            | -     | ○   | -              | ○          | -      | ○         | -          | ○      | -    | ○     | -   | ○     | -    | ○     | -     | ○      | -      | ○      | 7             | -40-125  |                    |            |        |      |           |   |                |                 |     |    |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |          |         |                 |      |
| R5F21266SDFP |              |             |            |            |   |              |       |     |                |            |        |           |            |        |      |       |     |       |      |       |       |        |        |        |               |          |                    | 32K        | 1.5K   | -    |           |   |                |                 |     |    |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |          |         |                 | ○    |
| R5F21266SNFP | 32K          | 1.5K        | -          | ○          | -   | ○            | -     | ○   | -              | ○          | -      | ○         | -          | ○      | -    | ○     | -   | ○     | -    | ○     | -     | ○      | -      | ○      | 7             | -20-85   |                    |            |        |      |           |   |                |                 |     |    |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |          |         |                 |      |

R8C族2x系列

| 群      | 型号           | 存储器         |            |             | 最高工作频率/工作电压                                       | 最小指令执行时间(ns) | I/O接口 | 时钟  |                |            | 电压检测   |                         |            | AD转换 | DA转换 | 定时器位数  |     | 定时器功能 |      |       |       |        |        |        | 串行接口②         |                   |          | CAN模块(Channel) | LIN模块(Channel) | 外部中断引脚数 | 工作温度范围(°C) | 封装(mm)  | 应用领域 |        |          |                    |
|--------|--------------|-------------|------------|-------------|---|--------------|-------|-----|----------------|------------|--------|-------------------------|------------|------|------|--------|-----|-------|------|-------|-------|--------|--------|--------|---------------|-------------------|----------|----------------|----------------|---------|------------|---------|------|--------|----------|--------------------|
|        |              | ROM(bytes)① | RAM(bytes) | 数据闪存(bytes) |   |              |       | PLL | 副时钟(32.768kHz) | 内部振荡器(Hz)⑤ | 振荡停止检测 | 上电复位(POR)               | 低电压检测(LVD) |      |      | 8位     | 16位 | 输入捕捉  | 输出比较 | PWM输出 | 事件计数器 | 三相编码输入 | 三相变频控制 | 看门狗定时器 | 串行接口(时钟同步/异步) | I <sup>2</sup> C线 | SSU/特殊串口 |                |                |         |            |         |      |        |          |                    |
| R8C/27 | R5F21272SDFP | 8K          | 512        | 1Kx2        | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V<br>5MHz/2.2-5.5V | 50@20MHz     | -     | ○   | ○              | ○          | 28     | 低速<br>125k<br>高速<br>40M | ○          | ○    | ○    | 10位x12 | -   | 3     | 1    | 4     | 5     | 4      | 1      | -      | -             | ○                 | 2        | -              | ○              | ○       | -          | ○       | 7    | -40-85 | LQFP-32  | 家电、办公设备、音频、普通民用、汽车 |
|        | R5F21272SNFP |             |            |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V<br>5MHz/2.2-5.5V | 50@20MHz     | -     | ○   | ○              | ○          |        |                         | -          | 3    | 1    |        | 4   | 5     | 4    | 1     | -     | -      | ○      | 2      | -             | ○                 | ○        | -              | ○              | 7       | -20-85     |         |      |        |          |                    |
|        | R5F21274JFP④ |             |            |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 50@20MHz     | -     | -   | ○              | ○          |        |                         | ○          | -    | 3    |        | 1   | 4     | 5    | 4     | 1     | -      | -      | ○      | 2             | -                 | ○        | ○              | -              | ○       | 7          | -40-85  |      |        |          |                    |
|        | R5F21274KFP④ | 16K         | 1K         |             | 16MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 62.5@16MHz   | -     | -   | ○              | ○          |        |                         | ○          | -    | -    |        | ○   | ○     | ○    | -     | -     | ○      | 2      | -      | ○             | ○                 | -        | ○              | 7              | -40-125 |            |         |      |        |          |                    |
|        | R5F21274SDFP |             |            |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V<br>5MHz/2.2-5.5V | 50@20MHz     | -     | ○   | ○              | ○          |        |                         | -          | 3    | 1    |        | 4   | 5     | 4    | 1     | -     | -      | ○      | 2      | -             | ○                 | ○        | -              | ○              | 7       | -40-85     |         |      |        |          |                    |
|        | R5F21274SNFP |             |            |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V<br>5MHz/2.2-5.5V | 50@20MHz     | -     | ○   | ○              | ○          |        |                         | -          | 3    | 1    |        | 4   | 5     | 4    | 1     | -     | -      | ○      | 2      | -             | ○                 | ○        | -              | ○              | 7       | -20-85     |         |      |        |          |                    |
|        | R5F21275SDFP | 24K         | 1.5K       |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V<br>5MHz/2.2-5.5V | 50@20MHz     | -     | ○   | ○              | ○          |        |                         | -          | ○    | ○    |        | ○   | -     | -    | ○     | 2     | -      | ○      | ○      | -             | ○                 | 7        | -40-85         |                |         |            |         |      |        |          |                    |
|        | R5F21275SNFP |             |            |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V<br>5MHz/2.2-5.5V | 50@20MHz     | -     | ○   | ○              | ○          |        |                         | -          | 3    | 1    |        | 4   | 5     | 4    | 1     | -     | -      | ○      | 2      | -             | ○                 | ○        | -              | ○              | 7       | -20-85     |         |      |        |          |                    |
|        | R5F21276JFP④ | 32K         | 1.5K       |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 50@20MHz     | -     | -   | ○              | ○          |        |                         | ○          | -    | -    |        | ○   | ○     | ○    | -     | -     | ○      | 2      | -      | ○             | ○                 | -        | ○              | 7              | -40-85  |            |         |      |        |          |                    |
|        | R5F21276KFP④ |             |            |             | 16MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 62.5@16MHz   | -     | -   | ○              | ○          |        |                         | ○          | -    | 3    |        | 1   | 4     | 5    | 4     | 1     | -      | -      | ○      | 2             | -                 | ○        | ○              | -              | ○       | 7          | -40-125 |      |        |          |                    |
|        | R5F21276SDFP |             |            |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V<br>5MHz/2.2-5.5V | 50@20MHz     | -     | ○   | ○              | ○          |        |                         | -          | 3    | 1    |        | 4   | 5     | 4    | 1     | -     | -      | ○      | 2      | -             | ○                 | ○        | -              | ○              | 7       | -40-85     |         |      |        |          |                    |
|        | R5F21276SNFP |             |            |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V<br>5MHz/2.2-5.5V | 50@20MHz     | -     | ○   | ○              | ○          |        |                         | -          | 3    | 1    |        | 4   | 5     | 4    | 1     | -     | -      | ○      | 2      | -             | ○                 | ○        | -              | ○              | 7       | -20-85     |         |      |        |          |                    |
| R8C/28 | R5F21282SDSP | 8K          | 512        | -           | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V<br>5MHz/2.2-5.5V | 50@20MHz     | -     | ○   | ○              | ○          | 16     | 低速<br>125k<br>高速<br>40M | ○          | ○    | ○    | 10位x4  | -   | 3     | 1    | 4     | 5     | 4      | 1      | -      | -             | ○                 | 1        | 1              | ○              | ○       | -          | ○       | 7    | -40-85 | LSSOP-20 | 家电、办公设备、音频、普通民用、汽车 |
|        | R5F21282SNSP |             |            |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V<br>5MHz/2.2-5.5V | 50@20MHz     | -     | ○   | ○              | ○          |        |                         | -          | 3    | 1    |        | 4   | 5     | 4    | 1     | -     | -      | ○      | 1      | 1             | ○                 | ○        | -              | ○              | 7       | -20-85     |         |      |        |          |                    |
|        | R5F21284JSP  | 16K         | 1K         |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 50@20MHz     | -     | -   | ○              | ○          |        |                         | ○          | -    | -    |        | ○   | ○     | ○    | -     | -     | ○      | 1      | 1      | ○             | ○                 | -        | ○              | 7              | -40-85  |            |         |      |        |          |                    |
|        | R5F21284KSP  |             |            |             | 16MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 62.5@16MHz   | -     | -   | ○              | ○          |        |                         | ○          | -    | 3    |        | 1   | 4     | 5    | 4     | 1     | -      | -      | ○      | 1             | 1                 | ○        | ○              | -              | ○       | 7          | -40-125 |      |        |          |                    |
|        | R5F21284SDSP |             |            |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V<br>5MHz/2.2-5.5V | 50@20MHz     | -     | ○   | ○              | ○          |        |                         | -          | 3    | 1    |        | 4   | 5     | 4    | 1     | -     | -      | ○      | 1      | 1             | ○                 | ○        | -              | ○              | 7       | -40-85     |         |      |        |          |                    |
|        | R5F21284SNSP | 32K         | 1.5K       |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V<br>5MHz/2.2-5.5V | 50@20MHz     | -     | ○   | ○              | ○          |        |                         | -          | ○    | ○    |        | ○   | -     | -    | ○     | 1     | 1      | ○      | ○      | -             | ○                 | 7        | -20-85         |                |         |            |         |      |        |          |                    |
|        | R5F21286JSP  |             |            |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 50@20MHz     | -     | -   | ○              | ○          |        |                         | ○          | -    | 3    |        | 1   | 4     | 5    | 4     | 1     | -      | -      | ○      | 1             | 1                 | ○        | ○              | -              | ○       | 7          | -40-85  |      |        |          |                    |
|        | R5F21286KSP  |             |            |             | 16MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 62.5@16MHz   | -     | -   | ○              | ○          |        |                         | ○          | -    | 3    |        | 1   | 4     | 5    | 4     | 1     | -      | -      | ○      | 1             | 1                 | ○        | ○              | -              | ○       | 7          | -40-125 |      |        |          |                    |

R8C族2x系列

| 群              | 型号            | 存储器   |            |             | 最高工作频率/工作电压                                       | 最小指令执行时间(ns) | I/O端口 | 时钟        |            |            | 电压检测       |            |    | AD转换  | DA转换   | 定时器位数  |                 | 定时器功能 |       |       |        |        | 串行接口②           |               |                 | CAN总线(Channel)  | LIN模块(Channel) | 外部中断引脚数         | 工作温度范围(°C)      | 封装(mm) | 应用领域    |        |          |                    |                  |
|----------------|---------------|---|------------|-------------|---|--------------|-------|-----------|------------|------------|------------|------------|----|-------|--------|--------|-----------------|-------|-------|-------|--------|--------|-----------------|---------------|-----------------|-----------------|----------------|-----------------|-----------------|--------|---------|--------|----------|--------------------|------------------|
|                |               | ROM(bytes)①                                       | RAM(bytes) | 数据闪存(bytes) |   |              |       | PLL       | 内部振荡器(Hz)③ | 振荡停止检测     | 上电复位(POR)  | 低电压检测(LVD) | 8位 |       |        | 16位    | 输入捕捉            | 输出比较  | PWM输出 | 事件计数器 | 二相编码输入 | 三相变频控制 | 看门狗定时器          | 串行接口(时钟同步/异步) | 时钟异步串行接口        |                 |                |                 |                 |        |         | FSMC总线 | SSU/特殊串口 |                    |                  |
| R8C/29         | R5F21292SDSP  | 8K  | 512        | 1Kx2        | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V<br>5MHz/2.2-5.5V | 50@20MHz     | 16    | -         | ○          | 低速<br>125k | ○          | ○          | ○  | 10位x4 | -      | 3      | 1               | 4     | 5     | 4     | 1      | -      | -               | ○             | 1               | 1               | ○              | ○               | -               | ○      | 7       | -40-85 | LSSOP-20 | 家电、办公设备、音频、普通民用、汽车 |                  |
|                | R5F21292SNSP  |   |            |             | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V<br>5MHz/2.2-5.5V | 50@20MHz     |       | -         | ○          |            | ○          | ○          | -  |       | 3      | 1      | 4               | 5     | 4     | 1     | -      | -      | ○               | 1             | 1               | ○               | ○              | -               | ○               | 7      | -20-85  |        |          |                    |                  |
|                | R5F21294JSP   | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 50@20MHz   |             | -   | -            |       | 高速<br>40M | ○          |            | ○          | ○          | -  |       | 3      | 1      | 4               | 5     | 4     | 1     | -      | -      | ○               | 1             | 1               | ○               | ○              | -               | ○               | 7      | -40-85  |        |          |                    |                  |
|                | R5F21294KSP   | 16MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 62.5@16MHz |             | -   | -            |       |           | ○          |            | ○          | ○          | -  |       | 3      | 1      | 4               | 5     | 4     | 1     | -      | -      | ○               | 1             | 1               | ○               | ○              | -               | ○               | 7      | -40-125 |        |          |                    |                  |
|                | R5F21294SDSP  | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V<br>5MHz/2.2-5.5V | 50@20MHz   |             | -   | ○            |       |           | ○          |            | ○          | -          | 3  |       | 1      | 4      | 5               | 4     | 1     | -     | -      | ○      | 1               | 1             | ○               | ○               | -              | ○               | 7               | -40-85 |         |        |          |                    |                  |
|                | R5F21294SNSP  | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V<br>5MHz/2.2-5.5V | 50@20MHz   |             | -   | ○            |       |           | ○          |            | ○          | -          | 3  |       | 1      | 4      | 5               | 4     | 1     | -     | -      | ○      | 1               | 1             | ○               | ○               | -              | ○               | 7               | -20-85 |         |        |          |                    |                  |
|                | R5F21296KSP   | 16MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 62.5@16MHz |             | -   | -            |       |           | ○          |            | ○          | ○          | -  |       | 3      | 1      | 4               | 5     | 4     | 1     | -      | -      | ○               | 1             | 1               | ○               | ○              | -               | ○               | 7      | -40-125 |        |          |                    |                  |
|                | R5F21296JSP   | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V                  | 50@20MHz   |             | -   | -            |       |           | ○          |            | ○          | ○          | -  |       | 3      | 1      | 4               | 5     | 4     | 1     | -      | -      | ○               | 1             | 1               | ○               | ○              | -               | ○               | 7      | -40-85  |        |          |                    |                  |
| R8C/2A         | R5F212A7SDFA  | 48K   | 2.5K       | -           | 20MHz/3.0-5.5V<br>10MHz/2.7-5.5V<br>5MHz/2.2-5.5V | 50@20MHz     | 57    |           | -          | ○          | 低速<br>125k | ○          | ○  | ○     | 10位x12 | 8位x2   | 3               | 4     | 13    | 14    | 10     | 1      | -               | 1             | ○               | 3               | -              | ○               | ○               | -      | ○       | 8      | -40-85   | LQFP-64 (14x14)    | 家电、办公设备、音频、消费类产品 |
|                | R5F212A7SDFP  |   |            |             |   |              |       |           | 3          | 4          |            | 13         | 14 | 10    |        |        | 1               | -     | 1     | ○     | 3      | -      | ○               | ○             | -               | ○               | 8              | -40-85          | LQFP-64 (10x10) |        |         |        |          |                    |                  |
|                | R5F212A7SNFA  |   |            |             |   |              |       | 3         | 4          | 13         |            | 14         | 10 | 1     |        |        | -               | 1     | ○     | 3     | -      | ○      | ○               | -             | ○               | 8               | -20-85         | LQFP-64 (14x14) |                 |        |         |        |          |                    |                  |
|                | R5F212A7SNFP  |   |            |             |   |              |       | 3         | 4          | 13         |            | 14         | 10 | 1     |        |        | -               | 1     | ○     | 3     | -      | ○      | ○               | -             | ○               | 8               | -20-85         | LQFP-64 (10x10) |                 |        |         |        |          |                    |                  |
|                | R5F212A7SNLNG |   |            |             |   |              |       | 3         | 4          | 13         |            | 14         | 10 | 1     |        |        | -               | 1     | ○     | 3     | -      | ○      | ○               | -             | ○               | 8               | -20-85         | BGA-64 (6x6)    |                 |        |         |        |          |                    |                  |
|                | R5F212A8SDFA  |   |            |             |   |              |       | 3         | 4          | 13         |            | 14         | 10 | 1     |        |        | -               | 1     | ○     | 3     | -      | ○      | ○               | -             | ○               | 8               | -40-85         | LQFP-64 (14x14) |                 |        |         |        |          |                    |                  |
|                | R5F212A8SDFP  | 3   | 4          |             |   |              |       | 13        | 14         | 10         |            | 1          | -  | 1     |        |        | ○               | 3     | -     | ○     | ○      | -      | ○               | 8             | -40-85          | LQFP-64 (10x10) |                |                 |                 |        |         |        |          |                    |                  |
|                | R5F212A8SNFA  | 3   | 4          |             |   |              |       | 13        | 14         | 10         |            | 1          | -  | 1     |        |        | ○               | 3     | -     | ○     | ○      | -      | ○               | 8             | -20-85          | LQFP-64 (14x14) |                |                 |                 |        |         |        |          |                    |                  |
|                | R5F212A8SNFP  | 3   | 4          |             |   |              |       | 13        | 14         | 10         |            | 1          | -  | 1     |        |        | ○               | 3     | -     | ○     | ○      | -      | ○               | 8             | -20-85          | LQFP-64 (10x10) |                |                 |                 |        |         |        |          |                    |                  |
|                | R5F212A8SNLNG | 3   | 4          |             |   |              |       | 13        | 14         | 10         |            | 1          | -  | 1     |        |        | ○               | 3     | -     | ○     | ○      | -      | ○               | 8             | -20-85          | BGA-64 (6x6)    |                |                 |                 |        |         |        |          |                    |                  |
|                | R5F212AASDFA  | 64K   | 3K         |             |   |              |       | -         | ○          | ○          |            | ○          | -  | ○     |        |        | 3               | -     | ○     | ○     | -      | ○      | 8               | -40-85        | LQFP-64 (14x14) |                 |                |                 |                 |        |         |        |          |                    |                  |
|                | R5F212AASDFP  |   |            |             |   |              |       | -         | ○          | ○          |            | ○          | -  | ○     |        |        | 3               | -     | ○     | ○     | -      | ○      | 8               | -40-85        | LQFP-64 (10x10) |                 |                |                 |                 |        |         |        |          |                    |                  |
|                | R5F212AASNFA  |   |            |             |   |              |       | -         | ○          | ○          |            | ○          | -  | ○     |        |        | 3               | -     | ○     | ○     | -      | ○      | 8               | -20-85        | LQFP-64 (14x14) |                 |                |                 |                 |        |         |        |          |                    |                  |
|                | R5F212AASNFP  |   |            |             |   |              |       | -         | ○          | ○          |            | ○          | -  | ○     |        |        | 3               | -     | ○     | ○     | -      | ○      | 8               | -20-85        | LQFP-64 (10x10) |                 |                |                 |                 |        |         |        |          |                    |                  |
|                | R5F212AASNLNG |   |            |             |   |              |       | -         | ○          | ○          |            | ○          | -  | ○     |        |        | 3               | -     | ○     | ○     | -      | ○      | 8               | -20-85        | BGA-64 (6x6)    |                 |                |                 |                 |        |         |        |          |                    |                  |
|                | R5F212ACSDFA  |   |            |             |   |              |       | -         | ○          | ○          |            | ○          | -  | ○     |        |        | 3               | -     | ○     | ○     | -      | ○      | 8               | -40-85        | LQFP-64 (14x14) |                 |                |                 |                 |        |         |        |          |                    |                  |
|                | R5F212ACSDFP  | -   | ○          |             |   |              |       | ○         | ○          | -          |            | ○          | 3  | -     |        |        | ○               | ○     | -     | ○     | 8      | -40-85 | LQFP-64 (10x10) |               |                 |                 |                |                 |                 |        |         |        |          |                    |                  |
|                | R5F212ACSNFA  | 128K  | 7.5K       |             |   |              |       | -         | ○          | ○          |            | ○          | -  | ○     |        |        | 3               | -     | ○     | ○     | -      | ○      | 8               | -20-85        | LQFP-64 (14x14) |                 |                |                 |                 |        |         |        |          |                    |                  |
| R5F212ACSDFP   | -             |   |            | ○           | ○   | ○            | -     | ○         | 3          | -          | ○          | ○          | -  | ○     | 8      | -20-85 | LQFP-64 (10x10) |       |       |       |        |        |                 |               |                 |                 |                |                 |                 |        |         |        |          |                    |                  |
| R5F212ACSNSFA  | -             |   |            | ○           | ○   | ○            | -     | ○         | 3          | -          | ○          | ○          | -  | ○     | 8      | -20-85 | LQFP-64 (14x14) |       |       |       |        |        |                 |               |                 |                 |                |                 |                 |        |         |        |          |                    |                  |
| R5F212ACSNSFP  | -             |   |            | ○           | ○   | ○            | -     | ○         | 3          | -          | ○          | ○          | -  | ○     | 8      | -20-85 | LQFP-64 (10x10) |       |       |       |        |        |                 |               |                 |                 |                |                 |                 |        |         |        |          |                    |                  |
| R5F212ACSNSLNG | -             |   |            | ○           | ○   | ○            | -     | ○         | 3          | -          | ○          | ○          | -  | ○     | 8      | -20-85 | BGA-64 (6x6)    |       |       |       |        |        |                 |               |                 |                 |                |                 |                 |        |         |        |          |                    |                  |
| R5F212ACSNSLNG | -             |   |            | ○           | ○   | ○            | -     | ○         | 3          | -          | ○          | ○          | -  | ○     | 8      | -20-85 | BGA-64 (6x6)    |       |       |       |        |        |                 |               |                 |                 |                |                 |                 |        |         |        |          |                    |                  |

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| 群            | 型号           | 存储器        |            | 最高工作频率/工作电压                                       | 最小指令执行时间(ns)                                      | I/O接口   | 时钟          |     |               | 电压检测      |        | AD转换   | DA转换   | 定时器位数     |   | 定时器功能    |   |          |      |       |       | 串行接口②  |        |        | CAN总线(Channel) | LIN总线(Channel) | 外部中断引脚数   | 工作温度范围(°C) | 封装(mm)          | 应用领域   |                 |                |          |   |        |      |      |   |          |    |        |                 |                |   |   |        |      |    |   |          |                 |        |                 |        |                 |                |        |      |          |    |    |    |        |         |                |                 |                |        |      |    |    |    |        |        |   |   |   |        |   |   |   |   |        |
|--------------|--------------|------------|------------|---|---|---|-------------|-----|---------------|-----------|--------|--------|--------|-----------|---|----------|---|----------|------|-------|-------|--------|--------|--------|----------------|----------------|---|------------|-----------------|--------|-----------------|----------------|----------|---|--------|------|------|---|----------|----|--------|-----------------|----------------|---|---|--------|------|----|---|----------|-----------------|--------|-----------------|--------|-----------------|----------------|--------|------|----------|----|----|----|--------|---------|----------------|-----------------|----------------|--------|------|----|----|----|--------|--------|---|---|---|--------|---|---|---|---|--------|
|              |              | ROM(bytes) | RAM(bytes) |   |   |   | 数据闪存(bytes) | PLL | 副时钟(3.768kHz) | 内部振荡器(Hz) | 振荡停止检测 |        |        | 上电复位(POR) | 低电压检测(LVD)  | 8位       | 16位   | 输入捕捉     | 输出比较 | PWM输出 | 事件计数器 | 二相编码输入 | 三相变频控制 | 看门狗定时器 |                |                |   |            |                 |        | 串行接口(时钟同步/异步)   | PC总线           | SSU/特殊串口 |   |        |      |      |   |          |    |        |                 |                |   |   |        |      |    |   |          |                 |        |                 |        |                 |                |        |      |          |    |    |    |        |         |                |                 |                |        |      |    |    |    |        |        |   |   |   |        |   |   |   |   |        |
| R8C/2B       | R5F212B7SDFA | 48K        | 2.5K       | 1Kx2  | 20MHz/3.0~5.5V<br>10MHz/2.7~5.5V<br>5MHz/2.2~5.5V | 50@20MHz  | 57          | -   | O             | O         | O      | 10位x12 | 8位x2   | 3         | 4   | 13       | 14  | 10       | 1    | -     | 1     | O      | 3      | -      | O              | O              | -   | O          | 8               | -40~85 | LQFP-64 (14x14) | 家电、办公设备、音频、消费品 |          |   |        |      |      |   |          |    |        |                 |                |   |   |        |      |    |   |          |                 |        |                 |        |                 |                |        |      |          |    |    |    |        |         |                |                 |                |        |      |    |    |    |        |        |   |   |   |        |   |   |   |   |        |
|              | R5F212B7SDFP |            |            |   |   |   |             |     |               |           |        |        |        | 3         | 4   | 13       | 14  | 10       | 1    | -     | 1     | O      | 3      | -      | O              | O              | -   | O          | 8               | -40~85 | LQFP-64 (10x10) |                |          |   |        |      |      |   |          |    |        |                 |                |   |   |        |      |    |   |          |                 |        |                 |        |                 |                |        |      |          |    |    |    |        |         |                |                 |                |        |      |    |    |    |        |        |   |   |   |        |   |   |   |   |        |
|              | R5F212B7SNFA |            |            |   |   |   |             |     |               |           |        |        |        | 3         | 4   | 13       | 14  | 10       | 1    | -     | 1     | O      | 3      | -      | O              | O              | -   | O          | 8               | -20~85 | LQFP-64 (14x14) |                |          |   |        |      |      |   |          |    |        |                 |                |   |   |        |      |    |   |          |                 |        |                 |        |                 |                |        |      |          |    |    |    |        |         |                |                 |                |        |      |    |    |    |        |        |   |   |   |        |   |   |   |   |        |
|              | R5F212B7SNFP |            |            |   |   |   |             |     |               |           |        |        |        | 3         | 4   | 13       | 14  | 10       | 1    | -     | 1     | O      | 3      | -      | O              | O              | -   | O          | 8               | -20~85 | LQFP-64 (10x10) |                |          |   |        |      |      |   |          |    |        |                 |                |   |   |        |      |    |   |          |                 |        |                 |        |                 |                |        |      |          |    |    |    |        |         |                |                 |                |        |      |    |    |    |        |        |   |   |   |        |   |   |   |   |        |
|              | R5F212B7SNLG |            |            |   |   |   |             |     |               |           |        |        |        | 3         | 4   | 13       | 14  | 10       | 1    | -     | 1     | O      | 3      | -      | O              | O              | -   | O          | 8               | -20~85 | BGA-64 (6x6)    |                |          |   |        |      |      |   |          |    |        |                 |                |   |   |        |      |    |   |          |                 |        |                 |        |                 |                |        |      |          |    |    |    |        |         |                |                 |                |        |      |    |    |    |        |        |   |   |   |        |   |   |   |   |        |
|              | R5F212B8SDFA |            |            |   |   |   |             |     |               |           |        |        |        | 3         | 4   | 13       | 14  | 10       | 1    | -     | 1     | O      | 3      | -      | O              | O              | -   | O          | 8               | -40~85 | LQFP-64 (14x14) |                |          |   |        |      |      |   |          |    |        |                 |                |   |   |        |      |    |   |          |                 |        |                 |        |                 |                |        |      |          |    |    |    |        |         |                |                 |                |        |      |    |    |    |        |        |   |   |   |        |   |   |   |   |        |
|              | R5F212B8SDFP | 3          | 4          |   |   |   |             |     |               |           |        |        |        | 13        | 14  | 10       | 1   | -        | 1    | O     | 3     | -      | O      | O      | -              | O              | 8   | -40~85     | LQFP-64 (10x10) |        |                 |                |          |   |        |      |      |   |          |    |        |                 |                |   |   |        |      |    |   |          |                 |        |                 |        |                 |                |        |      |          |    |    |    |        |         |                |                 |                |        |      |    |    |    |        |        |   |   |   |        |   |   |   |   |        |
|              | R5F212B8SNFA | 64K        | 3K         |   |   |   |             |     |               |           |        |        |        | 1Kx2      | 20MHz/3.0~5.5V<br>10MHz/2.7~5.5V<br>5MHz/2.2~5.5V | 50@20MHz | 57  | -        | O    | O     | O     | 10位x12 | 8位x2   | 3      | 4              | 13             | 14  | 10         | 1               | -      | 1               |                | O        | 3 | -      | O    | O    | -   | O        | 8  | -20~85 | LQFP-64 (14x14) | 家电、办公设备、音频、消费品 |   |   |        |      |    |   |          |                 |        |                 |        |                 |                |        |      |          |    |    |    |        |         |                |                 |                |        |      |    |    |    |        |        |   |   |   |        |   |   |   |   |        |
|              | R5F212B8SNFP |            |            |   |   |   |             |     |               |           |        |        |        |           |   |          |   |          |      |       |       |        |        | 3      | 4              | 13             | 14  | 10         | 1               | -      | 1               |                | O        | 3 | -      | O    | O    | -   | O        | 8  | -20~85 | LQFP-64 (10x10) |                |   |   |        |      |    |   |          |                 |        |                 |        |                 |                |        |      |          |    |    |    |        |         |                |                 |                |        |      |    |    |    |        |        |   |   |   |        |   |   |   |   |        |
|              | R5F212B8SNLG |            |            |   |   |   |             |     |               |           |        |        |        |           |   |          |   |          |      |       |       |        |        | 3      | 4              | 13             | 14  | 10         | 1               | -      | 1               |                | O        | 3 | -      | O    | O    | -   | O        | 8  | -20~85 | BGA-64 (6x6)    |                |   |   |        |      |    |   |          |                 |        |                 |        |                 |                |        |      |          |    |    |    |        |         |                |                 |                |        |      |    |    |    |        |        |   |   |   |        |   |   |   |   |        |
|              | R5F212BASDFA |            |            |   |   |   |             |     |               |           |        |        |        |           |   |          |   |          |      |       |       |        |        | 3      | 4              | 13             | 14  | 10         | 1               | -      | 1               |                | O        | 3 | -      | O    | O    | -   | O        | 8  | -40~85 | LQFP-64 (14x14) |                |   |   |        |      |    |   |          |                 |        |                 |        |                 |                |        |      |          |    |    |    |        |         |                |                 |                |        |      |    |    |    |        |        |   |   |   |        |   |   |   |   |        |
|              | R5F212BASDFP |            |            |   |   |   |             |     |               |           |        |        |        |           |   |          |   |          |      |       |       |        |        | 3      | 4              | 13             | 14  | 10         | 1               | -      | 1               |                | O        | 3 | -      | O    | O    | -   | O        | 8  | -40~85 | LQFP-64 (10x10) |                |   |   |        |      |    |   |          |                 |        |                 |        |                 |                |        |      |          |    |    |    |        |         |                |                 |                |        |      |    |    |    |        |        |   |   |   |        |   |   |   |   |        |
|              | R5F212BASNFA |            |            |   |   |   |             |     |               |           |        |        |        |           |   |          |   |          |      |       |       |        |        | 96K    | 7K             | 1Kx2           | 20MHz/3.0~5.5V<br>10MHz/2.7~5.5V<br>5MHz/2.2~5.5V | 50@20MHz   | 57              | -      | O               |                | O        | O | 10位x12 | 8位x2 | 3    | 4   | 13       | 14 | 10     | 1               |                | - | 1 | O      | 3    | -  | O   | O        | -               | O      | 8               | -20~85 | LQFP-64 (14x14) | 家电、办公设备、音频、消费品 |        |      |          |    |    |    |        |         |                |                 |                |        |      |    |    |    |        |        |   |   |   |        |   |   |   |   |        |
|              | R5F212BASNFP | 3          | 4          |   |   |   |             |     |               |           |        |        |        |           |   |          |   |          |      |       |       |        |        |        |                |                |   |            |                 |        |                 |                |          |   |        |      | 13   | 14  | 10       | 1  | -      | 1               |                | O | 3 | -      | O    | O  | -   | O        | 8               | -20~85 | LQFP-64 (10x10) |        |                 |                |        |      |          |    |    |    |        |         |                |                 |                |        |      |    |    |    |        |        |   |   |   |        |   |   |   |   |        |
|              | R5F212BASNLG | 3          | 4          |   |   |   |             |     |               |           |        |        |        |           |   |          |   |          |      |       |       |        |        |        |                |                |   |            |                 |        |                 |                |          |   |        |      | 13   | 14  | 10       | 1  | -      | 1               |                | O | 3 | -      | O    | O  | -   | O        | 8               | -20~85 | BGA-64 (6x6)    |        |                 |                |        |      |          |    |    |    |        |         |                |                 |                |        |      |    |    |    |        |        |   |   |   |        |   |   |   |   |        |
|              | R5F212BCSDFA | 3          | 4          |   |   |   |             |     |               |           |        |        |        |           |   |          |   |          |      |       |       |        |        |        |                |                |   |            |                 |        |                 |                |          |   |        |      | 13   | 14  | 10       | 1  | -      | 1               |                | O | 3 | -      | O    | O  | -   | O        | 8               | -40~85 | LQFP-64 (14x14) |        |                 |                |        |      |          |    |    |    |        |         |                |                 |                |        |      |    |    |    |        |        |   |   |   |        |   |   |   |   |        |
|              | R5F212BCSDFP | 3          | 4          |   |   |   |             |     |               |           |        |        |        |           |   |          |   |          |      |       |       |        |        |        |                |                |   |            |                 |        |                 |                |          |   |        |      | 13   | 14  | 10       | 1  | -      | 1               |                | O | 3 | -      | O    | O  | -   | O        | 8               | -40~85 | LQFP-64 (10x10) |        |                 |                |        |      |          |    |    |    |        |         |                |                 |                |        |      |    |    |    |        |        |   |   |   |        |   |   |   |   |        |
|              | R5F212BCSNFA | 128K       | 7.5K       |   |   |   |             |     |               |           |        |        |        |           |   |          |   |          |      |       |       |        |        |        |                |                |   |            |                 |        |                 |                |          |   |        |      | 1Kx2 | 20MHz/3.0~5.5V<br>10MHz/2.7~5.5V<br>5MHz/2.2~5.5V | 50@20MHz | 57 | -      | O               |                | O | O | 10位x12 | 8位x2 | 3  | 4   | 13       | 14              | 10     | 1               | -      | 1               |                | O      | 3    | -        | O  | O  | -  | O      | 8       | -20~85         | LQFP-64 (14x14) | 家电、办公设备、音频、消费品 |        |      |    |    |    |        |        |   |   |   |        |   |   |   |   |        |
| R5F212BCSNFP | 3            |            |            | 4   | 13  | 14  | 10          | 1   | -             | 1         | O      | 3      | -      |           |   |          |   |          |      |       |       |        |        | O      | O              |                |   |            |                 |        |                 | -              |          |   |        |      |      |   |          |    |        |                 |                |   |   |        |      | O  | 8   | -20~85   | LQFP-64 (10x10) |        |                 |        |                 |                |        |      |          |    |    |    |        |         |                |                 |                |        |      |    |    |    |        |        |   |   |   |        |   |   |   |   |        |
| R5F212BCSNLG | 3            |            |            | 4   | 13  | 14  | 10          | 1   | -             | 1         | O      | 3      | -      |           |   |          |   |          |      |       |       |        |        | O      | O              |                |   |            |                 |        |                 | -              |          |   |        |      |      |   |          |    |        |                 |                |   |   |        |      | O  | 8   | -20~85   | BGA-64 (6x6)    |        |                 |        |                 |                |        |      |          |    |    |    |        |         |                |                 |                |        |      |    |    |    |        |        |   |   |   |        |   |   |   |   |        |
| R5F212C7SDFP | 48K          |            |            | 2.5K  | -   | 20MHz/3.0~5.5V<br>10MHz/2.7~5.5V<br>5MHz/2.2~5.5V | 50@20MHz    | 73  | -             | O         | O      | O      | 10位x20 |           |   |          |   |          |      |       |       |        |        | 8位x2   | 3              |                |   |            |                 |        |                 | 4              |          |   |        |      |      |   |          |    |        |                 |                |   |   |        |      | 13 | 14  | 10       | 1               | -      | 1               | O      | 3               |                | -      | O    | O        | -  | O  | 8  | -40~85 | LQFP-80 | 家电、办公设备、音频、消费品 |                 |                |        |      |    |    |    |        |        |   |   |   |        |   |   |   |   |        |
| R5F212C7SNFP |              |            |            |   |   |   |             |     |               |           |        |        |        |           |   |          |   |          |      |       |       |        |        |        | 3              |                |   |            |                 |        |                 | 4              |          |   |        |      |      |   |          |    |        |                 |                |   |   |        |      | 13 | 14  | 10       | 1               | -      | 1               | O      | 3               |                | -      | O    | O        | -  | O  | 8  | -20~85 |         |                |                 |                |        |      |    |    |    |        |        |   |   |   |        |   |   |   |   |        |
| R5F212C8SDFP |              |            |            |   |   |   |             |     |               |           |        |        |        |           |   |          |   |          |      |       |       |        |        |        | 64K            |                |   |            |                 |        |                 | 3K             |          |   |        |      |      |   |          |    |        |                 |                |   |   |        |      | -  | 20MHz/3.0~5.5V<br>10MHz/2.7~5.5V<br>5MHz/2.2~5.5V | 50@20MHz | 73              | -      | O               | O      | O               |                | 10位x20 | 8位x2 | 3        | 4  | 13 | 14 | 10     |         |                | 1               |                | -      | 1    | O  | 3  | -  | O      | O      | - | O | 8 | -40~85 |   |   |   |   |        |
| R5F212C8SNFP | 3            | 4          | 13         | 14  |   |   |             |     |               |           |        |        |        |           |   |          |   |          |      |       |       |        |        |        |                |                |   |            |                 |        |                 |                |          |   |        |      |      |   |          |    |        |                 |                |   |   |        |      |    |   |          |                 |        |                 |        |                 |                |        |      | 10       | 1  | -  | 1  | O      |         |                | 3               |                | -      | O    | O  | -  | O  | 8      | -20~85 |   |   |   |        |   |   |   |   |        |
| R5F212CASDFP | 96K          | 7K         | -          | 20MHz/3.0~5.5V<br>10MHz/2.7~5.5V<br>5MHz/2.2~5.5V |   |   |             |     |               |           |        |        |        |           |   |          |   |          |      |       |       |        |        |        |                |                |   |            |                 |        |                 |                |          |   |        |      |      |   |          |    |        |                 |                |   |   |        |      |    |   |          |                 |        |                 |        |                 |                |        |      | 50@20MHz | 73 | -  | O  | O      |         |                | O               |                | 10位x20 | 8位x2 | 3  | 4  | 13 | 14     | 10     | 1 | - | 1 | O      | 3 | - | O | O | -      |
| R5F212CASNFP |              |            |            |   |   |   |             |     |               |           |        |        |        | 3         | 4   | 13       | 14  | 10       | 1    | -     | 1     | O      | 3      |        | -              |                |   |            |                 |        |                 | O              |          |   |        |      |      |   |          |    |        |                 | O              |   |   |        |      |    |   |          |                 |        |                 |        |                 |                |        |      |          |    |    |    |        |         |                |                 |                |        |      | -  | O  | 8  | -20~85 |        |   |   |   |        |   |   |   |   |        |
| R5F212CCSDFP |              |            |            |   |   |   |             |     |               |           |        |        |        | 128K      | 7.5K  | -        | 20MHz/3.0~5.5V<br>10MHz/2.7~5.5V<br>5MHz/2.2~5.5V | 50@20MHz | 73   | -     | O     | O      | O      |        | 10位x20         |                |   |            |                 |        |                 | 8位x2           |          |   |        |      |      |   |          |    |        |                 | 3              |   |   |        |      |    |   |          |                 |        |                 |        |                 |                |        |      |          |    |    |    |        |         |                |                 |                |        |      | 4  | 13 | 14 | 10     | 1      | - | 1 | O | 3      | - | O | O | - | O      |
| R5F212CCSNFP | 3            | 4          |            |   |   |   |             |     |               |           |        |        |        |           |   |          |   |          |      |       |       |        |        |        |                |                |   |            |                 |        |                 |                |          |   |        |      |      |   |          |    |        |                 | 13             |   |   |        |      |    |   |          |                 |        |                 |        |                 |                |        |      |          |    |    |    |        |         |                |                 |                |        |      | 14 | 10 | 1  | -      | 1      | O | 3 | - | O      | O | - | O | 8 | -20~85 |
| R5F212CCSNLG | 3            | 4          |            |   |   |   |             |     |               |           |        |        |        |           |   |          |   |          |      |       |       |        |        |        |                |                |   |            |                 |        |                 |                |          |   |        |      |      |   |          |    |        |                 | 13             |   |   |        |      |    |   |          |                 |        |                 |        |                 |                |        |      |          |    |    |    |        |         |                |                 |                |        |      | 14 | 10 | 1  | -      | 1      | O | 3 | - | O      | O | - | O | 8 | -20~85 |

R8C族2x系列

| 群      | 型号           | 存储器         |            | 最高工作频率/工作电压 | 最小指令执行时间(ns)                                      | I/O端口    | 时钟          |     |                | 电压检测       |        | AD转换   | DA转换 | 定时器位数     |            | 定时器功能 |     |      |      |       | 串行接口② |        |        | CAN总线(Channel) | LIN总线(Channel) | 外部中断引脚数 | 工作温度范围(°C) | 封装(mm) | 应用领域   |         |                         |                         |        |           |
|--------|--------------|-------------|------------|-------------|---|----------|-------------|-----|----------------|------------|--------|--------|------|-----------|------------|-------|-----|------|------|-------|-------|--------|--------|----------------|----------------|---------|------------|--------|--------|---------|-------------------------|-------------------------|--------|-----------|
|        |              | ROM(Bytes)① | RAM(Bytes) |             |   |          | 数据闪存(Bytes) | PLL | 副时钟(32.768kHz) | 内部振荡器(Hz)③ | 振荡停止检测 |        |      | 上电复位(POR) | 低电压检测(LVD) | 8位    | 16位 | 输入捕捉 | 输出比较 | PWM输出 | 事件计数器 | 二相编码输入 | 三相变频控制 |                |                |         |            |        |        | 看门狗定时器  | 串行接口(时钟同步/异步)           | 时钟异步串行接口                | PC总线   | SSU/特殊串行口 |
| R8C/2D | R5F212C7SDFP | 48K         | 2.5K       | 1Kx2        | 20MHz/3.0~5.5V<br>10MHz/2.7~5.5V<br>5MHz/2.2~5.5V | 50@20MHz | 73          | -   | ○              | ○          | ○      | 10位x20 | 8位x2 | 3         | 4          | 13    | 14  | 10   | 1    | -     | 1     | ○      | 3      | -              | ○              | ○       | -          | ○      | 8      | -40~85  | LQFP-80                 | 家电、办公设备、音频、消费品          |        |           |
|        | R5F212C7SNFP |             |            |             |   |          |             | -   | ○              | ○          | ○      |        |      | 3         | 4          | 13    | 14  | 10   | 1    | -     | 1     | ○      | 3      | -              | ○              | ○       | -          | ○      | 8      | -20~85  |                         |                         |        |           |
|        | R5F212C8SDFP | 64K         | 3K         |             |   |          |             | -   | ○              | ○          | ○      |        |      | 3         | 4          | 13    | 14  | 10   | 1    | -     | 1     | ○      | 3      | -              | ○              | ○       | -          | ○      | 8      | -40~85  |                         |                         |        |           |
|        | R5F212C8SNFP |             |            |             |   |          |             | -   | ○              | ○          | ○      |        |      | 3         | 4          | 13    | 14  | 10   | 1    | -     | 1     | ○      | 3      | -              | ○              | ○       | -          | ○      | 8      | -20~85  |                         |                         |        |           |
|        | R5F212CASDFP | 96K         | 7K         |             |   |          |             | -   | ○              | ○          | ○      |        |      | 3         | 4          | 13    | 14  | 10   | 1    | -     | 1     | ○      | 3      | -              | ○              | ○       | -          | ○      | 8      | -40~85  |                         |                         |        |           |
|        | R5F212CASNFP |             |            |             |   |          |             | -   | ○              | ○          | ○      |        |      | 3         | 4          | 13    | 14  | 10   | 1    | -     | 1     | ○      | 3      | -              | ○              | ○       | -          | ○      | 8      | -20~85  |                         |                         |        |           |
|        | R5F212CCSDFP | 128K        | 7.5K       |             |   |          |             | -   | ○              | ○          | ○      |        |      | 3         | 4          | 13    | 14  | 10   | 1    | -     | 1     | ○      | 3      | -              | ○              | ○       | -          | ○      | 8      | -40~85  |                         |                         |        |           |
|        | R5F212CCSNFP |             |            |             |   |          |             | -   | ○              | ○          | ○      |        |      | 3         | 4          | 13    | 14  | 10   | 1    | -     | 1     | ○      | 3      | -              | ○              | ○       | -          | ○      | 8      | -20~85  |                         |                         |        |           |
| R8C/2E | R5F212E2DFP  | 8K          | 512        | -           | 20MHz/3.0~5.5V<br>10MHz/2.7~5.5V                  | 50@20MHz | 28          | -   | 低              | ○          | ○      | 10位x12 | 8位x2 | 3         | 1          | 4     | 5   | 4    | 1    | -     | -     | ○      | 1      | -              | -              | -       | -          | ○      | 7      | -40~85  | LQFP-32                 | 功率控制、家电、办公设备、音频设备、消费类产品 |        |           |
|        | R5F212E2NFP  |             |            |             |   |          |             | -   | 125k           | ○          | ○      |        |      | ○         | 3          | 1     | 4   | 5    | 4    | 1     | -     | -      | ○      | 1              | -              | -       | -          | -      | -      | -       |                         |                         | ○      | 7         |
|        | R5F212E4DFP  | 16K         | 1K         |             |   |          |             | -   | 高              | ○          | ○      |        |      | 3         | 1          | 4     | 5   | 4    | 1    | -     | -     | ○      | 1      | -              | -              | -       | -          | -      | -      | ○       |                         |                         | 7      | -40~85    |
|        | R5F212E4NFP  |             |            |             |   |          |             | -   | 40M            | ○          | ○      |        |      | ○         | 3          | 1     | 4   | 5    | 4    | 1     | -     | -      | ○      | 1              | -              | -       | -          | -      | -      | ○       |                         |                         | 7      | -20~85    |
| R8C/2F | R5F212F2DFP  | 8K          | 512        | 1Kx2        | 20MHz/3.0~5.5V<br>10MHz/2.7~5.5V                  | 50@20MHz | 28          | -   | 低              | ○          | ○      | 10位x12 | 8位x2 | 3         | 1          | 4     | 5   | 4    | 1    | -     | -     | ○      | 1      | -              | -              | -       | -          | ○      | 7      | -40~85  | LQFP-32                 | 功率控制、家电、办公设备、音频设备、消费类产品 |        |           |
|        | R5F212F2NFP  |             |            |             |   |          |             | -   | 125k           | ○          | ○      |        |      | ○         | 3          | 1     | 4   | 5    | 4    | 1     | -     | -      | ○      | 1              | -              | -       | -          | -      | -      | ○       |                         |                         | 7      | -20~85    |
|        | R5F212F4DFP  | 16K         | 1K         |             |   |          |             | -   | 高              | ○          | ○      |        |      | 3         | 1          | 4     | 5   | 4    | 1    | -     | -     | ○      | 1      | -              | -              | -       | -          | -      | -      | ○       |                         |                         | 7      | -40~85    |
|        | R5F212F4NFP  |             |            |             |   |          |             | -   | 40M            | ○          | ○      |        |      | ○         | 3          | 1     | 4   | 5    | 4    | 1     | -     | -      | ○      | 1              | -              | -       | -          | -      | -      | ○       |                         |                         | 7      | -20~85    |
| R8C/2G | R5F212G4SDFP | 16K         | 512        | -           | 8MHz/2.7~5.5V<br>4MHz/2.2~5.5V                    | 125@8MHz | 28          | -   | ○              | ○          | -      | -      | 3    | 1         | 1          | 2     | 1   | 1    | -    | -     | ○     | 2      | -      | -              | -              | -       | ○          | 7      | -40~85 | LQFP-32 | 功率控制、家电、办公设备、音频设备、消费类产品 |                         |        |           |
|        | R5F212G4SNFP |             |            |             |   |          |             | -   | 低              | -          |        |        | ○    | ○         | 3          | 1     | 1   | 2    | 1    | 1     | -     | -      | ○      | 2              | -              | -       | -          | -      | -      |         |                         | ○                       | 7      | -20~85    |
|        | R5F212G5SDFP | 24K         | 1K         |             |   |          |             | -   | ○              | ○          |        |        | 3    | 1         | 1          | 2     | 1   | 1    | -    | -     | ○     | 2      | -      | -              | -              | -       | -          | -      | ○      |         |                         | 7                       | -40~85 |           |
|        | R5F212G5SNFP |             |            |             |   |          |             | -   | 高              | -          |        |        | ○    | ○         | 3          | 1     | 1   | 2    | 1    | 1     | -     | -      | ○      | 2              | -              | -       | -          | -      | -      |         |                         | ○                       | 7      | -20~85    |
|        | R5F212G6SDFP | 32K         | 1K         |             |   |          |             | -   | ○              | ○          |        |        | 3    | 1         | 1          | 2     | 1   | 1    | -    | -     | ○     | 2      | -      | -              | -              | -       | -          | -      | ○      |         |                         | 7                       | -40~85 |           |
|        | R5F212G6SNFP |             |            |             |   |          |             | -   | 8M             | -          |        |        | ○    | ○         | 3          | 1     | 1   | 2    | 1    | 1     | -     | -      | ○      | 2              | -              | -       | -          | -      | -      |         |                         | ○                       | 7      | -20~85    |
| R8C/2H | R5F212H1SDSP | 4K          | 256        | -           | 8MHz/2.7~5.5V<br>4MHz/2.2~5.5V                    | 125@8MHz | 16          | -   | 低              | -          | ○      | -      | -    | 3         | 1          | 1     | 2   | 1    | 1    | -     | -     | ○      | 2      | -              | -              | -       | -          | ○      | 7      | -40~85  | LSSOP-20                | 功率控制、家电、办公设备、音频设备、消费类产品 |        |           |
|        | R5F212H1SNSP |             |            |             |   |          |             | -   | 125k           | -          | ○      |        |      | ○         | 3          | 1     | 1   | 2    | 1    | 1     | -     | -      | ○      | 2              | -              | -       | -          | -      | -      | ○       |                         |                         | 7      | -20~85    |
|        | R5F212H2SDSP | 8K          | 384        |             |   |          |             | -   | 高              | -          | ○      |        |      | 3         | 1          | 1     | 2   | 1    | 1    | -     | -     | ○      | 2      | -              | -              | -       | -          | -      | ○      | 7       |                         |                         | -40~85 |           |
|        | R5F212H2SNSP |             |            |             |   |          |             | -   | 8M             | -          | ○      |        |      | ○         | 3          | 1     | 1   | 2    | 1    | 1     | -     | -      | ○      | 2              | -              | -       | -          | -      | -      | ○       |                         |                         | 7      | -20~85    |
| R8C/2J | R5F212J0SDSP | 2K          | 256        | -           | 8MHz/2.7~5.5V<br>4MHz/2.2~5.5V                    | 125@8MHz | 12          | -   | 低              | -          | ○      | -      | -    | 3         | 1          | 1     | 2   | 1    | 1    | -     | -     | ○      | 1      | -              | -              | -       | -          | ○      | 7      | -40~85  | LSSOP-20                | 功率控制、家电、办公设备、音频设备、消费类产品 |        |           |
|        | R5F212J0SNSP |             |            |             |   |          |             | -   | 125k           | -          | ○      |        |      | ○         | 3          | 1     | 1   | 2    | 1    | 1     | -     | -      | ○      | 1              | -              | -       | -          | -      | -      | ○       |                         |                         | 7      | -20~85    |
|        | R5F212J1SDSP | 4K          | 384        |             |   |          |             | -   | 高              | -          | ○      |        |      | 3         | 1          | 1     | 2   | 1    | 1    | -     | -     | ○      | 1      | -              | -              | -       | -          | -      | ○      | 7       |                         |                         | -40~85 |           |
|        | R5F212J1SNSP |             |            |             |   |          |             | -   | 8M             | -          | ○      |        |      | ○         | 3          | 1     | 1   | 2    | 1    | 1     | -     | -      | ○      | 1              | -              | -       | -          | -      | -      | ○       |                         |                         | 7      | -20~85    |
| R8C/2K | R5F212K2SDFP | 8K          | 1K         | -           | 20MHz/3.0~5.5V<br>10MHz/2.7~5.5V<br>5MHz/2.2~5.5V | 50@20MHz | 28          | -   | 低              | ○          | ○      | 10位x12 | -    | 2         | 3          | 12    | 12  | 10   | 1    | -     | 1     | ○      | 2      | -              | -              | -       | -          | ○      | 7      | -40~85  | LQFP-32                 | 功率控制、家电、办公设备、音频设备、消费类产品 |        |           |
|        | R5F212K2SNFP |             |            |             |   |          |             | -   | 125k           | ○          | ○      |        |      | ○         | 2          | 3     | 12  | 12   | 10   | 1     | -     | 1      | ○      | 2              | -              | -       | -          | -      | -      | ○       |                         |                         | 7      | -20~85    |
|        | R5F212K4SDFP | 16K         | 1.5K       |             |   |          |             | -   | 高              | ○          | ○      |        |      | 2         | 3          | 12    | 12  | 10   | 1    | -     | 1     | ○      | 2      | -              | -              | -       | -          | -      | ○      | 7       |                         |                         | -40~85 |           |
|        | R5F212K4SNFP |             |            |             |   |          |             | -   | 8M             | ○          | ○      |        |      | ○         | 2          | 3     | 12  | 12   | 10   | 1     | -     | 1      | ○      | 2              | -              | -       | -          | -      | ○      | 7       |                         |                         | -20~85 |           |
| R8C/2L | R5F212L2SDFP | 8K          | 1K         | 1Kx2        | 20MHz/3.0~5.5V<br>10MHz/2.7~5.5V<br>5MHz/2.2~5.5V | 50@20MHz | 28          | -   | 低              | ○          | ○      | 10位x12 | -    | 2         | 3          | 12    | 12  | 10   | 1    | -     | 1     | ○      | 2      | -              | -              | -       | -          | ○      | 7      | -40~85  | LQFP-32                 | 功率控制、家电、办公设备、音频设备、消费类产品 |        |           |
|        | R5F212L2SNFP |             |            |             |   |          |             | -   | 125k           | ○          | ○      |        |      | ○         | 2          | 3     | 12  | 12   | 10   | 1     | -     | 1      | ○      | 2              | -              | -       | -          | -      | ○      | 7       |                         |                         | -20~85 |           |
|        | R5F212L4SDFP | 16K         | 1.5K       |             |   |          |             | -   | 高              | ○          | ○      |        |      | 2         | 3          | 12    | 12  | 10   | 1    | -     | 1     | ○      | 2      | -              | -              | -       | -          | ○      | 7      | -40~85  |                         |                         |        |           |
|        | R5F212L4SNFP |             |            |             |   |          |             | -   | 8M             | ○          | ○      |        |      | ○         | 2          | 3     | 12  | 12   | 10   | 1     | -     | 1      | ○      | 2              | -              | -       | -          | -      | ○      | 7       |                         |                         | -20~85 |           |

注：  
 ① R8C/2x芯片的ROM类型均为Flash。  
 ② 串行接口(时钟同步/异步)代表此接口既可以作为时钟同步串口接口使用，也可以作为时钟异步串行接口使用。时钟同步串行接口指此接口只能作为时钟同步串行接口使用。  
 ③ 此处列出的均为典型值，详细信息请参照各个芯片的使用手册。

R8C族3x系列

| 群  | 型号            | 存储器         |            | 最高工作频率/工作电压 | 最小指令执行时间(ns)                    | I/O接口    | 时钟          |     |                 | 电压检测      |        | AD转换 | DA转换 | 定时器位数     |            | 定时器功能 |     |      |      |       | 串行接口② |        |        | CAN总线(Channel) | LIN总线(Channel) | 外部中断引脚数 | 工作温度范围(°C) | 封装(mm) | 应用领域 |        |          |          |                        |                        |         |         |        |
|--|---------------|-------------|------------|-------------|---------------------------------|----------|-------------|-----|-----------------|-----------|--------|------|------|-----------|------------|-------|-----|------|------|-------|-------|--------|--------|----------------|----------------|---------|------------|--------|------|--------|----------|----------|------------------------|------------------------|---------|---------|--------|
|  |               | ROM(Bytes)① | RAM(Bytes) |             |                                 |          | 数据闪存(Bytes) | PLL | 副时钟(32.768kHz)③ | 内部振荡器(Hz) | 振荡停止检测 |      |      | 上电复位(POR) | 低电压检测(LVD) | 8位    | 16位 | 输入捕捉 | 输出比较 | PWM输出 | 事件计数器 | 二相编码输入 | 三相变频控制 |                |                |         |            |        |      | 看门狗定时器 | 串行接口(异步) | 串行接口(同步) | I <sup>2</sup> C总线     | SSU/特殊串口               |         |         |        |
| R8C/32C                                  | R5F21321CNSP  | 4K          | 512        | 4K          | 20MHz/2.7~5.5V<br>5MHz/1.8~5.5V | 50@20MHz | 16          | -   | -               | 低速125k    | ○      | ○    | ○    | 10位x4     | -          | 3     | 1   | 4    | 5    | 4     | 1     | -      | -      | ○              | 2              | -       | 2          | 1      | -    | 1      | 7        | -20~85   | LSSOPP-20              | 电子家用电器、办公设备、音频设备、消费类产品 |         |         |        |
|  | R5F21322CNSP  | 8K          | 1K         |             |                                 |          |             | -   | -               | 高速40M     | ○      | ○    | ○    |           |            | 3     | 1   | 4    | 5    | 4     | 1     | -      | -      | ○              | 2              | -       | 2          | 1      | -    | 1      | 7        | -20~85   |                        |                        |         |         |        |
|  | R5F21324CNSP  | 16K         | 1.5K       |             |                                 |          |             | -   | -               | ○         | ○      | ○    | 3    |           |            | 1     | 4   | 5    | 4    | 1     | -     | -      | ○      | 2              | -              | 2       | 1          | -      | 1    | 7      | -20~85   |          |                        |                        |         |         |        |
| R8C/33C                                  | R5F21331CNFP  | 4K          | 512        | 4K          | 20MHz/2.7~5.5V<br>5MHz/1.8~5.5V | 50@20MHz | 28          | -   | -               | 低速125k    | ○      | ○    | ○    | 10位x20    | 8位x2       | 3     | 1   | 4    | 5    | 4     | 1     | -      | -      | ○              | 2              | -       | 2          | 1      | -    | 1      | 7        | -20~85   | LQFP-32                | 电子家用电器、办公设备、音频设备、消费类产品 |         |         |        |
|  | R5F21332CNFP  | 8K          | 1K         |             |                                 |          |             | -   | -               | ○         | ○      | ○    | 3    |           |            | 1     | 4   | 5    | 4    | 1     | -     | -      | ○      | 2              | -              | 2       | 1          | -      | 1    | 7      | -20~85   |          |                        |                        |         |         |        |
|  | R5F21334CNFP  | 16K         | 1.5K       |             |                                 |          |             | -   | -               | 高速40M     | ○      | ○    | ○    |           |            | 3     | 1   | 4    | 5    | 4     | 1     | -      | -      | ○              | 2              | -       | 2          | 1      | -    | 1      | 7        | -20~85   |                        |                        |         |         |        |
|  | R5F21335CNFP  | 24K         | 2K         |             |                                 |          |             | -   | -               | ○         | ○      | ○    | 3    |           |            | 1     | 4   | 5    | 4    | 1     | -     | -      | ○      | 2              | -              | 2       | 1          | -      | 1    | 7      | -20~85   |          |                        |                        |         |         |        |
|  | R5F21336CNFP  | 32K         | 2.5K       |             |                                 |          |             | -   | -               | ○         | ○      | ○    | 3    |           |            | 1     | 4   | 5    | 4    | 1     | -     | -      | ○      | 2              | -              | 2       | 1          | -      | 1    | 7      | -20~85   |          |                        |                        |         |         |        |
| R8C/33T                                  | R5F21334TNFP  | 16K         | 1.5K       | 4K          | 20MHz/2.7~5.5V<br>5MHz/1.8~5.5V | 50@20MHz | 28          | -   | -               | 低速125k    | ○      | ○    | ○    | 10位x12    | 8位x2       | 2     | 1   | 4    | 4    | 4     | 1     | -      | -      | ○              | 3              | -       | 1          | -      | 1    | 8      | -20~85   | LQFP-32  | 电子家用电器、办公设备、音频设备、消费类产品 |                        |         |         |        |
|  | R5F21335TNFP  | 24K         | 2K         |             |                                 |          |             | -   | -               | 高速40M     | ○      | ○    | ○    |           |            | 2     | 1   | 4    | 4    | 4     | 1     | -      | -      | ○              | 3              | -       | 1          | -      | 1    | 8      | -20~85   |          |                        |                        |         |         |        |
|  | R5F21336TNFP  | 32K         | 2.5K       |             |                                 |          |             | -   | -               | ○         | ○      | ○    | 2    |           |            | 1     | 4   | 4    | 4    | 1     | -     | -      | ○      | 3              | -              | 1       | -          | 1      | 8    | -20~85 |          |          |                        |                        |         |         |        |
| R8C/34C                                  | R5F21344CNFP  | 16K         | 1.5K       | 4K          | 20MHz/2.7~5.5V<br>5MHz/1.8~5.5V | 50@20MHz | 44          | -   | -               | 低速125k    | ○      | ○    | ○    | 10位x12    | 8位x2       | 3     | 3   | 12   | 13   | 10    | 1     | 1      | -      | ○              | 3              | -       | 2          | 1      | -    | 1      | 9        | -20~85   | LQFP-48                | 电子家用电器、办公设备、音频设备、消费类产品 |         |         |        |
|  | R5F21345CNFP  | 24K         | 2K         |             |                                 |          |             | -   | -               | 高速40M     | ○      | ○    | ○    |           |            | 3     | 3   | 12   | 13   | 10    | 1     | 1      | -      | ○              | 3              | -       | 2          | 1      | -    | 1      | 9        | -20~85   |                        |                        |         |         |        |
|  | R5F21346CNFP  | 32K         | 2.5K       |             |                                 |          |             | -   | -               | ○         | ○      | ○    | 3    |           |            | 3     | 12  | 13   | 10   | 1     | 1     | -      | ○      | 3              | -              | 2       | 1          | -      | 1    | 9      | -20~85   |          |                        |                        |         |         |        |
| R8C/34E<br>R8C/34F<br>R8C/34G<br>R8C/34H | R5F21346EJFP④ | 32K         | 2.5K       | 1K x 4      | 20MHz/2.7~5.5V                  | 50@20MHz | 44          | -   | -               | 低速125k    | ○      | ○    | ○    | 10位x12    | -          | 3     | 3   | 12   | 13   | 10    | 1     | 1      | -      | ○              | 2              | -       | 1          | 1      | 1    | 1      | 9        | -40~85   | LQFP-48                | 汽车等                    |         |         |        |
|  | R5F21346EKFP④ | -           | -          |             |                                 |          |             | -   | -               |           | ○      | ○    | ○    |           |            | 3     | 3   | 12   | 13   | 10    | 1     | 1      | -      | ○              | 2              | -       | 1          | 1      | 1    | 1      | 1        | 9        |                        |                        | -40~125 |         |        |
|  | R5F21347EJFP④ | 48K         | 4K         |             |                                 |          |             | -   | -               |           | ○      | ○    | ○    |           |            | 3     | 3   | 12   | 13   | 10    | 1     | 1      | -      | ○              | 2              | -       | 1          | 1      | 1    | 1      | 1        | 9        |                        |                        | -40~85  |         |        |
|  | R5F21347EKFP④ | -           | -          |             |                                 |          |             | -   | -               |           | ○      | ○    | ○    |           |            | 3     | 3   | 12   | 13   | 10    | 1     | 1      | -      | ○              | 2              | -       | 1          | 1      | 1    | 1      | 1        | 9        |                        |                        | -40~125 |         |        |
|  | R5F21348EJFP④ | 64K         | 6K         |             |                                 |          |             | -   | -               |           | ○      | ○    | ○    |           |            | 3     | 3   | 12   | 13   | 10    | 1     | 1      | -      | ○              | 2              | -       | 1          | 1      | 1    | 1      | 1        | 9        |                        |                        | -40~85  |         |        |
|  | R5F21348EKFP④ | -           | -          |             |                                 |          |             | -   | -               |           | ○      | ○    | ○    |           |            | 3     | 3   | 12   | 13   | 10    | 1     | 1      | -      | ○              | 2              | -       | 1          | 1      | 1    | 1      | 1        | 9        |                        |                        | -40~125 |         |        |
|  | R5F2134AEJFP④ | 96K         | 8K         |             |                                 |          |             | -   | -               |           | ○      | ○    | ○    |           |            | 3     | 3   | 12   | 13   | 10    | 1     | 1      | -      | ○              | 2              | -       | 1          | 1      | 1    | 1      | 1        | 9        |                        |                        | -40~85  |         |        |
|  | R5F2134CEJFP④ | 128K        | 10K        |             |                                 |          |             | -   | -               |           | ○      | ○    | ○    |           |            | 3     | 3   | 12   | 13   | 10    | 1     | 1      | -      | ○              | 2              | -       | 1          | 1      | 1    | 1      | 1        | 9        |                        |                        | -40~85  |         |        |
|  | R5F21346FJFP④ | 32K         | 2.5K       |             |                                 |          |             | -   | -               |           | -      | -    | ○    |           |            | ○     | ○   | 3    | 3    | 12    | 13    | 10     | 1      | 1              | -              | ○       | 2          | -      | 1    | 1      | 1        | 1        |                        |                        | 1       | 9       | -40~85 |
|  | R5F21346FKFP④ | -           | -          |             |                                 |          |             |     | -               |           | -      | ○    | ○    |           |            | ○     | 3   | 3    | 12   | 13    | 10    | 1      | 1      | -              | ○              | 2       | -          | 1      | 1    | 1      | 1        | 1        |                        |                        | 9       | -40~125 |        |
|  | R5F21347FJFP④ | 48K         | 4K         | -           |                                 |          |             |     | -               | ○         | ○      | ○    | 3    |           |            | 3     | 12  | 13   | 10   | 1     | 1     | -      | ○      | 2              | -              | 1       | 1          | 1      | 1    | 1      | 9        | -40~85   |                        |                        |         |         |        |
|  | R5F21347FKFP④ | -           | -          | -           |                                 |          |             |     | -               | ○         | ○      | ○    | 3    |           |            | 3     | 12  | 13   | 10   | 1     | 1     | -      | ○      | 2              | -              | 1       | 1          | 1      | 1    | 1      | 9        | -40~125  |                        |                        |         |         |        |
|  | R5F21348FJFP④ | 64K         | 6K         | -           |                                 |          |             |     | -               | ○         | ○      | ○    | 3    |           |            | 3     | 12  | 13   | 10   | 1     | 1     | -      | ○      | 2              | -              | 1       | 1          | 1      | 1    | 1      | 9        | -40~85   |                        |                        |         |         |        |
|  | R5F21348FKFP④ | -           | -          | -           |                                 |          |             |     | -               | ○         | ○      | ○    | 3    |           |            | 3     | 12  | 13   | 10   | 1     | 1     | -      | ○      | 2              | -              | 1       | 1          | 1      | 1    | 1      | 9        | -40~125  |                        |                        |         |         |        |
|  | R5F2134AFJFP④ | 96K         | 8K         | -           |                                 |          |             |     | -               | ○         | ○      | ○    | 3    |           |            | 3     | 12  | 13   | 10   | 1     | 1     | -      | ○      | 2              | -              | 1       | 1          | 1      | 1    | 1      | 9        | -40~85   |                        |                        |         |         |        |
|  | R5F2134CFJFP④ | 128K        | 10K        | -           |                                 |          |             |     | -               | ○         | ○      | ○    | 3    |           |            | 3     | 12  | 13   | 10   | 1     | 1     | -      | ○      | 2              | -              | 1       | 1          | 1      | 1    | 1      | 9        | -40~85   |                        |                        |         |         |        |
|  | R5F21346GJFP④ | 32K         | 2.5K       | 1K x 4      |                                 |          |             |     | -               | -         | -      | ○    | ○    |           |            | ○     | 3   | 3    | 12   | 13    | 10    | 1      | 1      | -              | ○              | 2       | -          | 1      | 1    | -      | 1        | 9        |                        |                        | -40~85  |         |        |
|  | R5F21346GKFP④ | -           | -          |             |                                 |          |             |     | -               | -         | ○      | ○    | ○    |           |            | 3     | 3   | 12   | 13   | 10    | 1     | 1      | -      | ○              | 2              | -       | 1          | 1      | -    | 1      | 9        | -40~125  |                        |                        |         |         |        |
|  | R5F21347GJFP④ | 48K         | 4K         |             |                                 |          |             | -   | -               | ○         | ○      | ○    | 3    |           |            | 3     | 12  | 13   | 10   | 1     | 1     | -      | ○      | 2              | -              | 1       | 1          | -      | 1    | 9      | -40~85   |          |                        |                        |         |         |        |
|  | R5F21347GKFP④ | -           | -          |             |                                 |          |             | -   | -               | ○         | ○      | ○    | 3    |           |            | 3     | 12  | 13   | 10   | 1     | 1     | -      | ○      | 2              | -              | 1       | 1          | -      | 1    | 9      | -40~125  |          |                        |                        |         |         |        |
| R5F21348GJFP④                            | 64K           | 6K          | -          |             | -                               | ○        | ○           | ○   | 3               | 3         | 12     | 13   | 10   | 1         | 1          | -     | ○   | 2    | -    | 1     | 1     | -      | 1      | 9              | -40~85         |         |            |        |      |        |          |          |                        |                        |         |         |        |
| R5F21348GKFP④                            | -             | -           | -          |             | -                               | ○        | ○           | ○   | 3               | 3         | 12     | 13   | 10   | 1         | 1          | -     | ○   | 2    | -    | 1     | 1     | -      | 1      | 9              | -40~125        |         |            |        |      |        |          |          |                        |                        |         |         |        |
| R5F2134AGJFP④                            | 96K           | 8K          | -          |             | -                               | ○        | ○           | ○   | 3               | 3         | 12     | 13   | 10   | 1         | 1          | -     | ○   | 2    | -    | 1     | 1     | -      | 1      | 9              | -40~85         |         |            |        |      |        |          |          |                        |                        |         |         |        |
| R5F2134CGJFP④                            | 128K          | 10K         | -          |             | -                               | ○        | ○           | ○   | 3               | 3         | 12     | 13   | 10   | 1         | 1          | -     | ○   | 2    | -    | 1     | 1     | -      | 1      | 9              | -40~85         |         |            |        |      |        |          |          |                        |                        |         |         |        |



R8C族3x系列

| 群  | 型号              | 存储器         |            |             | 最高工作频率/工作电压                     | 最小指令执行时间(µs) | I/O接口 | 时钟   |                  |           | 电压检测   |           |            | AD转换   | DA转换 | 定时器位数 |     | 定时器功能 |      |        |       |        |         | 串行接口②  |          |      |           | 工作温度范围(°C) | 封装(mm)  | 应用领域    |                |                |                        |        |          |         |
|--|-----------------|-------------|------------|-------------|---------------------------------|--------------|-------|------|------------------|-----------|--------|-----------|------------|--------|------|-------|-----|-------|------|--------|-------|--------|---------|--------|----------|------|-----------|------------|---------|---------|----------------|----------------|------------------------|--------|----------|---------|
|  |                 | ROM(bytes)① | RAM(bytes) | 数据闪存(bytes) |                                 |              |       | PLL  | 副时钟(32、7.68kHz)③ | 内部振荡器(Hz) | 振荡停止检测 | 上升复位(POR) | 低电压检测(LVD) |        |      | 8位    | 16位 | 输入捕捉  | 输出比较 | PWM/输出 | 事件计数器 | 二相编码输入 | 三相变频控制  | 看门狗定时器 | 串行接口②    |      | SUS/特殊串行口 |            |         |         | CAN总线(Channel) | LIN模块(Channel) | 外部中断引脚数                |        |          |         |
|  |                 |             |            |             |                                 |              |       |      |                  |           |        |           |            |        |      |       |     |       |      |        |       |        |         |        | 时钟同步(异步) | 串行接口 |           |            |         |         |                |                |                        | PC总线   | 时钟异步串行接口 |         |
| R8C/34E<br>R8C/34F<br>R8C/34G<br>R8C/34H | R5F21346HJFP(4) | 32K         | 2.5K       | -           | 20MHz/2.7~5.5V                  | 50@20MHz     | 44    | -    | -                | 低速125k    | ○      | ○         | ○          | 10位x12 | -    | 3     | 3   | 12    | 13   | 10     | 1     | 1      | -       | ○      | 2        | -    | 1         | 1          | -       | 1       | 9              | -40~85         | LQFP-48                | 汽车等    |          |         |
|  | R5F21346HKFP(4) | 48K         | 4K         |             |                                 |              |       |      |                  |           | -      | ○         | ○          |        |      | ○     | 3   | 3     | 12   | 13     | 10    | 1      | 1       | -      | ○        | 2    | -         | 1          | 1       | -       | 1              | 9              |                        |        | -40~125  |         |
|  | R5F21347HJFP(4) |             |            |             |                                 |              |       |      |                  |           | ○      | ○         | ○          |        |      | 3     | 3   | 12    | 13   | 10     | 1     | 1      | -       | ○      | 2        | -    | 1         | 1          | -       | 1       | 9              | -40~85         |                        |        |          |         |
|  | R5F21347HKFP(4) |             |            |             |                                 |              |       |      |                  |           | ○      | ○         | ○          |        |      | 3     | 3   | 12    | 13   | 10     | 1     | 1      | -       | ○      | 2        | -    | 1         | 1          | -       | 1       | 9              | -40~125        |                        |        |          |         |
|  | R5F21348HJFP(4) |             |            |             |                                 |              |       |      |                  |           | 64K    | 6K        | ○          |        |      | ○     | ○   | 3     | 3    | 12     | 13    | 10     | 1       | 1      | -        | ○    | 2         | -          | 1       | 1       | -              | 1              |                        |        | 9        | -40~85  |
|  | R5F21348HKFP(4) |             |            |             |                                 |              |       |      |                  |           |        |           | ○          |        |      | ○     | ○   | 3     | 3    | 12     | 13    | 10     | 1       | 1      | -        | ○    | 2         | -          | 1       | 1       | -              | 1              |                        |        | 9        | -40~125 |
|  | R5F2134AHJFP(4) |             |            |             |                                 |              |       |      |                  |           | 96K    | 8K        | ○          |        |      | ○     | ○   | 3     | 3    | 12     | 13    | 10     | 1       | 1      | -        | ○    | 2         | -          | 1       | 1       | -              | 1              |                        |        | 9        | -40~85  |
| R5F2134CHJFP(4)                          | 128K            | 10K         | -          | ○           | ○                               | ○            | 3     | 3    | 12               | 13        |        |           | 10         | 1      | 1    | -     | ○   | 2     | -    | 1      | 1     | -      | 1       | 9      | -40~85   |      |           |            |         |         |                |                |                        |        |          |         |
| R8C/35C                                  | R5F21354CNFP    | 16K         | 1.5K       | 1Kx4        | 20MHz/2.7~5.5V<br>5MHz/1.8~5.5V | 50@20MHz     | 48    | -    | ○                | ○         | ○      | ○         | 10位x12     | -      | 3    | 3     | 12  | 13    | 10   | 1      | -     | 1      | ○       | 3      | -        | 2    | 1         | -          | 1       | 9       | -20~85         | LQFP-52        | 电子家用电器、办公设备、音频设备、消费类产品 |        |          |         |
|  | R5F21355CNFP    | 24K         | 2K         |             |                                 |              |       | -    | ○                | ○         | ○      | 3         |            |        | 3    | 12    | 13  | 10    | 1    | -      | 1     | ○      | 3       | -      | 2        | 1    | -         | 1          | 9       | -20~85  |                |                |                        |        |          |         |
|  | R5F21356CNFP    | 32K         | 2.5K       |             |                                 |              |       | -    | ○                | ○         | ○      | 3         |            |        | 3    | 12    | 13  | 10    | 1    | -      | 1     | ○      | 3       | -      | 2        | 1    | -         | 1          | 9       | -20~85  |                |                |                        |        |          |         |
| R8C/36E<br>R8C/36F<br>R8C/36G<br>R8C/36H | R5F21368EJFP(4) | 64K         | 6K         | 1Kx4        | 20MHz/2.7~5.5V                  | 50@20MHz     | 60    | -    | ○                | ○         | ○      | ○         | 10位x16     | -      | 4    | 5     | 15  | 16    | 11   | 3      | 1     | 1      | ○       | 3      | -        | 1    | 1         | 1          | 2       | 9       | -40~85         | LQFP-80        | 汽车等                    |        |          |         |
|  | R5F21368EKFP(4) |             |            |             |                                 |              |       | ○    | ○                | ○         | 4      | 5         |            |        | 15   | 16    | 11  | 3     | 1    | 1      | ○     | 3      | -       | 1      | 1        | 1    | 2         | 9          | -40~125 |         |                |                |                        |        |          |         |
|  | R5F2136AEJFP(4) |             |            |             |                                 |              |       | 96K  | 8K               | ○         | ○      | ○         |            |        | ○    | 4     | 5   | 15    | 16   | 11     | 3     | 1      | 1       | ○      | 3        | -    | 1         | 1          | 1       | 2       | 9              |                |                        | -40~85 |          |         |
|  | R5F2136AEKFP(4) |             |            |             |                                 |              |       |      |                  | ○         | ○      | ○         |            |        | 4    | 5     | 15  | 16    | 11   | 3      | 1     | 1      | ○       | 3      | -        | 1    | 1         | 1          | 2       | 9       | -40~125        |                |                        |        |          |         |
|  | R5F2136CEJFP(4) |             |            |             |                                 |              |       |      |                  | 128K      | 10K    | ○         |            |        | ○    | ○     | ○   | 4     | 5    | 15     | 16    | 11     | 3       | 1      | 1        | ○    | 3         | -          | 1       | 1       | 1              |                |                        | 2      | 9        | -40~85  |
|  | R5F2136CEKFP(4) | ○           | ○          | ○           |                                 |              |       |      |                  |           |        | 4         |            |        | 5    | 15    | 16  | 11    | 3    | 1      | 1     | ○      | 3       | -      | 1        | 1    | 1         | 2          | 9       | -40~125 |                |                |                        |        |          |         |
|  | R5F21368FJFP(4) | 64K         | 6K         | -           |                                 |              |       | ○    | ○                | ○         | ○      | 4         |            |        | 5    | 15    | 16  | 11    | 3    | 1      | 1     | ○      | 3       | -      | 1        | 1    | 1         | 2          | 9       | -40~85  |                |                |                        |        |          |         |
|  | R5F21368FKFP(4) |             |            |             |                                 |              |       | ○    | ○                | ○         | 4      | 5         |            |        | 15   | 16    | 11  | 3     | 1    | 1      | ○     | 3      | -       | 1      | 1        | 1    | 2         | 9          | -40~125 |         |                |                |                        |        |          |         |
|  | R5F2136AFJFP(4) | 96K         | 8K         | -           |                                 |              |       | ○    | ○                | ○         | ○      | 4         |            |        | 5    | 15    | 16  | 11    | 3    | 1      | 1     | ○      | 3       | -      | 1        | 1    | 1         | 2          | 9       | -40~85  |                |                |                        |        |          |         |
|  | R5F2136AFKFP(4) |             |            |             |                                 |              |       | ○    | ○                | ○         | 4      | 5         |            |        | 15   | 16    | 11  | 3     | 1    | 1      | ○     | 3      | -       | 1      | 1        | 1    | 2         | 9          | -40~125 |         |                |                |                        |        |          |         |
|  | R5F2136CFJFP(4) | 128K        | 10K        | -           |                                 |              |       | ○    | ○                | ○         | ○      | 4         |            |        | 5    | 15    | 16  | 11    | 3    | 1      | 1     | ○      | 3       | -      | 1        | 1    | 1         | 2          | 9       | -40~85  |                |                |                        |        |          |         |
|  | R5F2136CFKFP(4) |             |            |             |                                 |              |       | ○    | ○                | ○         | 4      | 5         |            |        | 15   | 16    | 11  | 3     | 1    | 1      | ○     | 3      | -       | 1      | 1        | 1    | 2         | 9          | -40~125 |         |                |                |                        |        |          |         |
|  | R5F2136GJFP(4)  | 64K         | 6K         | 1Kx4        |                                 |              |       | ○    | ○                | ○         | ○      | 4         |            |        | 5    | 15    | 16  | 11    | 3    | 1      | 1     | ○      | 3       | -      | 1        | 1    | -         | 2          | 9       | -40~85  |                |                |                        |        |          |         |
|  | R5F2136GKFP(4)  |             |            |             |                                 |              |       | ○    | ○                | ○         | 4      | 5         |            |        | 15   | 16    | 11  | 3     | 1    | 1      | ○     | 3      | -       | 1      | 1        | -    | 2         | 9          | -40~125 |         |                |                |                        |        |          |         |
|  | R5F2136AGJFP(4) |             |            |             |                                 |              |       | 96K  | 8K               | ○         | ○      | ○         |            |        | ○    | 4     | 5   | 15    | 16   | 11     | 3     | 1      | 1       | ○      | 3        | -    | 1         | 1          | -       | 2       | 9              |                |                        | -40~85 |          |         |
|  | R5F2136AGKFP(4) |             |            |             |                                 |              |       |      |                  | ○         | ○      | ○         |            |        | 4    | 5     | 15  | 16    | 11   | 3      | 1     | 1      | ○       | 3      | -        | 1    | 1         | -          | 2       | 9       | -40~125        |                |                        |        |          |         |
|  | R5F2136CGJFP(4) | 128K        | 10K        | ○           |                                 |              |       | ○    | ○                | ○         | 4      | 5         |            |        | 15   | 16    | 11  | 3     | 1    | 1      | ○     | 3      | -       | 1      | 1        | -    | 2         | 9          | -40~85  |         |                |                |                        |        |          |         |
|  | R5F2136CGKFP(4) |             |            | ○           |                                 |              |       | ○    | ○                | 4         | 5      | 15        |            |        | 16   | 11    | 3   | 1     | 1    | ○      | 3     | -      | 1       | 1      | -        | 2    | 9         | -40~125    |         |         |                |                |                        |        |          |         |
|  | R5F21368HJFP(4) | 64K         | 6K         | -           |                                 |              |       | ○    | ○                | ○         | ○      | 4         |            |        | 5    | 15    | 16  | 11    | 3    | 1      | 1     | ○      | 3       | -      | 1        | 1    | -         | 2          | 9       | -40~85  |                |                |                        |        |          |         |
|  | R5F21368HKFP(4) |             |            |             |                                 |              |       | ○    | ○                | ○         | 4      | 5         |            |        | 15   | 16    | 11  | 3     | 1    | 1      | ○     | 3      | -       | 1      | 1        | -    | 2         | 9          | -40~125 |         |                |                |                        |        |          |         |
|  | R5F2136AHJFP(4) |             |            |             |                                 |              |       | 96K  | 8K               | ○         | ○      | ○         |            |        | ○    | 4     | 5   | 15    | 16   | 11     | 3     | 1      | 1       | ○      | 3        | -    | 1         | 1          | -       | 2       | 9              |                |                        | -40~85 |          |         |
|  | R5F2136AHKFP(4) | ○           | ○          | ○           |                                 |              |       |      |                  | 4         | 5      | 15        |            |        | 16   | 11    | 3   | 1     | 1    | ○      | 3     | -      | 1       | 1      | -        | 2    | 9         | -40~125    |         |         |                |                |                        |        |          |         |
|  | R5F2136CHJFP(4) | 128K        | 10K        | -           |                                 |              |       | ○    | ○                | ○         | ○      | 4         |            |        | 5    | 15    | 16  | 11    | 3    | 1      | 1     | ○      | 3       | -      | 1        | 1    | -         | 2          | 9       | -40~85  |                |                |                        |        |          |         |
| R5F2136CHKFP(4)                          | ○               |             |            |             | ○                               | ○            | 4     | 5    | 15               | 16        | 11     | 3         | 1          | 1      | ○    | 3     | -   | 1     | 1    | -      | 2     | 9      | -40~125 |        |          |      |           |            |         |         |                |                |                        |        |          |         |
| R8C/38E<br>R8C/38F<br>R8C/38G<br>R8C/38H | R5F21388EJFP(4) | 64K         | 6K         | 1K x 4      | 20MHz/2.7~5.5V                  | 50@20MHz     | 76    | -    | ○                | ○         | ○      | ○         | 10位x20     | -      | 4    | 5     | 15  | 16    | 11   | 3      | 1     | 1      | ○       | 3      | -        | 1    | 1         | 1          | 2       | 9       | -40~85         | LQFP-80        | 汽车等                    |        |          |         |
|  | R5F21388EKFP(4) |             |            |             |                                 |              |       | ○    | ○                | ○         | 4      | 5         |            |        | 15   | 16    | 11  | 3     | 1    | 1      | ○     | 3      | -       | 1      | 1        | 1    | 2         | 9          | -40~125 |         |                |                |                        |        |          |         |
|  | R5F2138AEJFP(4) | 96K         | 8K         |             |                                 |              |       | ○    | ○                | ○         | ○      | 4         |            |        | 5    | 15    | 16  | 11    | 3    | 1      | 1     | ○      | 3       | -      | 1        | 1    | 1         | 2          | 9       | -40~85  |                |                |                        |        |          |         |
|  | R5F2138AEKFP(4) |             |            |             |                                 |              |       | ○    | ○                | ○         | 4      | 5         |            |        | 15   | 16    | 11  | 3     | 1    | 1      | ○     | 3      | -       | 1      | 1        | 1    | 2         | 9          | -40~125 |         |                |                |                        |        |          |         |
|  | R5F2138CEJFP(4) |             |            |             |                                 |              |       | 128K | 10K              | ○         | ○      | ○         |            |        | ○    | 4     | 5   | 15    | 16   | 11     | 3     | 1      | 1       | ○      | 3        | -    | 1         | 1          | 1       | 2       | 9              |                |                        | -40~85 |          |         |
|  | R5F2138CEKFP(4) |             |            |             |                                 |              |       |      |                  | ○         | ○      | ○         |            |        | 4    | 5     | 15  | 16    | 11   | 3      | 1     | 1      | ○       | 3      | -        | 1    | 1         | 1          | 2       | 9       | -40~125        |                |                        |        |          |         |

R8C族3x系列

| 群  | 型号            | 存储器         |            |             | 最高工作频率/工作电压    | 最小指令执行时间(ns) | I/O接口 | 时钟         |                 |           | 电压检测   |           | AD转换 | DA转换   | 定时器位数      |    | 定时器功能 |      |      |       |       | 串行接口②  |        |         |               | CAN总线(Channel) | LIN模块(Channel) | 外部中断引脚数 | 工作温度范围(°C) | 封装(mm) | 应用领域    |          |         |          |   |         |
|--|---------------|-------------|------------|-------------|----------------|--------------|-------|------------|-----------------|-----------|--------|-----------|------|--------|------------|----|-------|------|------|-------|-------|--------|--------|---------|---------------|----------------|----------------|---------|------------|--------|---------|----------|---------|----------|---|---------|
|  |               | ROM(bytes)① | RAM(bytes) | 数据闪存(bytes) |                |              |       | PLL        | 副时钟(32,768kHz)③ | 内部振荡器(Hz) | 振荡停止检测 | 上电复位(POR) |      |        | 低电压检测(LVD) | 8位 | 16位   | 输入捕捉 | 输出比较 | PWM输出 | 事件计数器 | 二相编码输入 | 三相变频控制 | 看门狗定时器  | 串行接口(时钟同步/异步) |                |                |         |            |        |         | 时钟异步串行接口 | PC总线    | SSU/特殊串口 |   |         |
| R8C/38E<br>R8C/38F<br>R8C/38G<br>R8C/38H | R5F21388FJFP④ | 64K         | 6K         | -           | 20MHz/2.7~5.5V | 50@20MHz     | 76    | 低速<br>125k | -               | -         | ○      | ○         | ○    | 10位x20 | -          | 4  | 5     | 15   | 16   | 11    | 3     | 1      | 1      | ○       | 3             | -              | 1              | 1       | 1          | 2      | 9       | -40~85   | LQFP-80 | 汽车等      |   |         |
|  | R5F21388FKFP④ |             |            |             |                |              |       |            | -               | -         | ○      | ○         | ○    |        |            | 4  | 5     | 15   | 16   | 11    | 3     | 1      | 1      | ○       | 3             | -              | 1              | 1       | 1          | 2      | 9       | -40~125  |         |          |   |         |
|  | R5F2138AFJFP④ |             |            |             |                |              |       |            | 96K             | 8K        | -      | -         | ○    |        |            | ○  | ○     | 4    | 5    | 15    | 16    | 11     | 3      | 1       | 1             | ○              | 3              | -       | 1          | 1      | 1       | 2        |         |          | 9 | -40~85  |
|  | R5F2138AFKFP④ |             |            |             |                |              |       |            |                 |           | -      | -         | ○    |        |            | ○  | ○     | 4    | 5    | 15    | 16    | 11     | 3      | 1       | 1             | ○              | 3              | -       | 1          | 1      | 1       | 2        |         |          | 9 | -40~125 |
|  | R5F2138CFJFP④ | 128K        | 10K        |             |                |              |       |            | -               | -         | ○      | ○         | ○    |        |            | 4  | 5     | 15   | 16   | 11    | 3     | 1      | 1      | ○       | 3             | -              | 1              | 1       | 1          | 2      | 9       | -40~85   |         |          |   |         |
|  | R5F2138CFKFP④ |             |            |             |                |              |       |            | -               | -         | ○      | ○         | ○    |        |            | 4  | 5     | 15   | 16   | 11    | 3     | 1      | 1      | ○       | 3             | -              | 1              | 1       | 1          | 2      | 9       | -40~125  |         |          |   |         |
|  | R5F21388GJFP④ | 64K         | 6K         |             |                |              |       |            | -               | -         | ○      | ○         | ○    |        |            | 4  | 5     | 15   | 16   | 11    | 3     | 1      | 1      | ○       | 3             | -              | 1              | 1       | -          | 2      | 9       | -40~85   |         |          |   |         |
|  | R5F21388GKFP④ |             |            |             |                |              |       |            | -               | -         | ○      | ○         | ○    |        |            | 4  | 5     | 15   | 16   | 11    | 3     | 1      | 1      | ○       | 3             | -              | 1              | 1       | -          | 2      | 9       | -40~125  |         |          |   |         |
|  | R5F2138AGJFP④ | 96K         | 8K         | 1Kx4        |                |              |       | -          | -               | ○         | ○      | ○         | 4    |        |            | 5  | 15    | 16   | 11   | 3     | 1     | 1      | ○      | 3       | -             | 1              | 1              | -       | 2          | 9      | -40~85  |          |         |          |   |         |
|  | R5F2138AGKFP④ |             |            |             |                |              |       | -          | -               | ○         | ○      | ○         | 4    |        |            | 5  | 15    | 16   | 11   | 3     | 1     | 1      | ○      | 3       | -             | 1              | 1              | -       | 2          | 9      | -40~125 |          |         |          |   |         |
|  | R5F2138CGJFP④ | 128K        | 10K        |             |                |              |       | -          | -               | ○         | ○      | ○         | 4    |        |            | 5  | 15    | 16   | 11   | 3     | 1     | 1      | ○      | 3       | -             | 1              | 1              | -       | 2          | 9      | -40~85  |          |         |          |   |         |
|  | R5F2138CGKFP④ |             |            |             |                |              |       | -          | -               | ○         | ○      | ○         | 4    |        |            | 5  | 15    | 16   | 11   | 3     | 1     | 1      | ○      | 3       | -             | 1              | 1              | -       | 2          | 9      | -40~125 |          |         |          |   |         |
|  | R5F21388HJFP④ | 64K         | 6K         |             |                |              |       | -          | -               | ○         | ○      | ○         | 4    |        |            | 5  | 15    | 16   | 11   | 3     | 1     | 1      | ○      | 3       | -             | 1              | 1              | -       | 2          | 9      | -40~85  |          |         |          |   |         |
|  | R5F21388HKFP④ |             |            |             |                |              |       | -          | -               | ○         | ○      | ○         | 4    |        |            | 5  | 15    | 16   | 11   | 3     | 1     | 1      | ○      | 3       | -             | 1              | 1              | -       | 2          | 9      | -40~125 |          |         |          |   |         |
|  | R5F2138AHJFP④ | 96K         | 8K         |             |                |              |       | -          | -               | ○         | ○      | ○         | 4    |        |            | 5  | 15    | 16   | 11   | 3     | 1     | 1      | ○      | 3       | -             | 1              | 1              | -       | 2          | 9      | -40~85  |          |         |          |   |         |
|  | R5F2138AHKFP④ |             |            |             |                |              |       | -          | -               | ○         | ○      | ○         | 4    |        |            | 5  | 15    | 16   | 11   | 3     | 1     | 1      | ○      | 3       | -             | 1              | 1              | -       | 2          | 9      | -40~125 |          |         |          |   |         |
| R5F2138CHJFP④                            | 128K          | 10K         | -          | -           | ○              | ○            | ○     | 4          | 5               | 15        | 16     | 11        | 3    | 1      | 1          | ○  | 3     | -    | 1    | 1     | -     | 2      | 9      | -40~85  |               |                |                |         |            |        |         |          |         |          |   |         |
| R5F2138CHKFP④                            |               |             | -          | -           | ○              | ○            | ○     | 4          | 5               | 15        | 16     | 11        | 3    | 1      | 1          | ○  | 3     | -    | 1    | 1     | -     | 2      | 9      | -40~125 |               |                |                |         |            |        |         |          |         |          |   |         |

注：  
 ① R8C/3x芯片的ROM类型均为Flash。  
 ② 串行接口(时钟同步/异步)代表此接口既可以作为时钟同步串口接口使用，也可以作为时钟异步串行接口使用。时钟同步串行接口指此接口只能作为时钟同步串行接口使用。  
 ③ 此处列出的均为典型值，详细信息请参照各个芯片的使用手册。  
 ④ 汽车用

## R8C族Lx系列

| 群            | 型号           | 存储器            |            |                    | 最高工作频率/工作电压                     | 最小指令执行时间(ns) | I/O端口② | 时钟  |            |            | 电压检测      |            |    | AD转换   | DA转换 | 定时器位数 |      | 定时器功能 |       |       |        |        |        |      | LCD驱动控制电路         |                                |          | 串行接口④   |      |                    |          | CAN模块(Channel) | LIN模块(Channel) | 外部中断引脚数 | 工作温度范围(°C) | 封装(mm) | 应用领域               |                                  |
|--------------|--------------|----------------|------------|--------------------|---------------------------------|--------------|--------|-----|------------|------------|-----------|------------|----|--------|------|-------|------|-------|-------|-------|--------|--------|--------|------|-------------------|--------------------------------|----------|---------|------|--------------------|----------|----------------|----------------|---------|------------|--------|--------------------|----------------------------------|
|              |              | ROM(bytes)①    | RAM(bytes) | 数据闪存(bytes)        |                                 |              |        | PLL | 内部振荡器(Hz)③ | 振荡停止检测     | 上电复位(POR) | 低电压检测(LVD) | 8位 |        |      | 16位   | 输入捕捉 | 输出比较  | PWM输出 | 事件计数器 | 二相编码输入 | 三相变频控制 | 看门狗定时器 | 偏置电路 | 占空比               | 公共输出最大引脚数                      | 段输出最大引脚数 | 时钟同步/异步 | 串行接口 | I <sup>2</sup> C总线 | SSU/特殊串口 |                |                |         |            |        |                    | 外部中断引脚数                          |
| R8C/L35C     | R5F2L357CDFP | 48K            | 6K         | 4K                 | 20MHz/2.7-5.5V<br>5MHz/1.8-5.5V | 50@20MHz     | 41     | -   | ○          | 低速<br>125k | ○         | ○          | ○  | 10位x10 | 8位x2 | 3     | 4    | 14    | 15    | 11    | 2      | 1      | 1      | ○    | 1/2<br>1/3        | 静态<br>1/2<br>1/3<br>1/4        | 4        | 24      | 3    | -                  | 1        | 1              | -              | 1       | 9          | -40~85 | LQFP-52<br>(10x10) | 家电应用、<br>办公设备、<br>音频设备、<br>消费类电子 |
|              | R5F2L357CNFP | 48K            | 6K         |                    |                                 |              |        |     |            |            |           |            |    |        |      |       |      |       |       |       |        |        |        |      |                   |                                |          |         |      |                    |          |                |                |         |            | -20~85 |                    |                                  |
|              | R5F2L358CDFP | 64K            | 8K         |                    |                                 |              |        |     |            |            |           |            |    |        |      |       |      |       |       |       |        |        |        |      |                   |                                |          |         |      |                    |          |                |                |         |            | -40~85 |                    |                                  |
|              | R5F2L358CNFP | 64K            | 8K         |                    |                                 |              |        |     |            |            |           |            |    |        |      |       |      |       |       |       |        |        |        |      |                   |                                |          |         |      |                    |          |                |                |         |            | -20~85 |                    |                                  |
|              | R5F2L35ACDFP | 96K            | 10K        |                    |                                 |              |        |     |            |            |           |            |    |        |      |       |      |       |       |       |        |        |        |      |                   |                                |          |         |      |                    |          |                |                |         |            | -40~85 |                    |                                  |
|              | R5F2L35ACNFP | 96K            | 10K        |                    |                                 |              |        |     |            |            |           |            |    |        |      |       |      |       |       |       |        |        |        |      |                   |                                |          |         |      |                    |          |                |                |         |            | -20~85 |                    |                                  |
|              | R5F2L35CCDFP | 128K           | 10K        |                    |                                 |              |        |     |            |            |           |            |    |        |      |       |      |       |       |       |        |        |        |      |                   |                                |          |         |      |                    |          |                |                |         |            | -40~85 |                    |                                  |
| R5F2L35CCNFP | 128K         | 10K            | -20~85     |                    |                                 |              |        |     |            |            |           |            |    |        |      |       |      |       |       |       |        |        |        |      |                   |                                |          |         |      |                    |          |                |                |         |            |        |                    |                                  |
| R8C/L36C     | R5F2L367CDFA | 48K            | 6K         | 4K                 | 20MHz/2.7-5.5V<br>5MHz/1.8-5.5V | 50@20MHz     | 52     | -   | ○          | 低速<br>125k | ○         | ○          | ○  | 10位x10 | 8位x2 | 3     | 4    | 14    | 15    | 11    | 2      | 1      | 1      | ○    | 1/2<br>1/3<br>1/4 | 静态<br>1/2<br>1/3<br>1/4<br>1/8 | 8        | 32⑤     | 3    | -                  | 1        | 1              | -              | 1       | 12         | -40~85 | LQFP-64<br>(14x14) | 家电应用、<br>办公设备、<br>音频设备、<br>消费类电子 |
|              | R5F2L367CDFP | 48K            | 6K         |                    |                                 |              |        |     |            |            |           |            |    |        |      |       |      |       |       |       |        |        |        |      |                   |                                |          |         |      |                    |          |                |                |         |            | -40~85 | LQFP-64<br>(10x10) |                                  |
|              | R5F2L367CNFA | 48K            | 6K         |                    |                                 |              |        |     |            |            |           |            |    |        |      |       |      |       |       |       |        |        |        |      |                   |                                |          |         |      |                    |          |                |                |         |            | -20~85 | LQFP-64<br>(14x14) |                                  |
|              | R5F2L367CNFP | 48K            | 6K         |                    |                                 |              |        |     |            |            |           |            |    |        |      |       |      |       |       |       |        |        |        |      |                   |                                |          |         |      |                    |          |                |                |         |            | -20~85 | LQFP-64<br>(10x10) |                                  |
|              | R5F2L368CDFA | 64K            | 8K         |                    |                                 |              |        |     |            |            |           |            |    |        |      |       |      |       |       |       |        |        |        |      |                   |                                |          |         |      |                    |          |                |                |         |            | -40~85 | LQFP-64<br>(14x14) |                                  |
|              | R5F2L368CDFP | 64K            | 8K         |                    |                                 |              |        |     |            |            |           |            |    |        |      |       |      |       |       |       |        |        |        |      |                   |                                |          |         |      |                    |          |                |                |         |            | -40~85 | LQFP-64<br>(10x10) |                                  |
|              | R5F2L368CNFA | 64K            | 8K         |                    |                                 |              |        |     |            |            |           |            |    |        |      |       |      |       |       |       |        |        |        |      |                   |                                |          |         |      |                    |          |                |                |         |            | -20~85 | LQFP-64<br>(14x14) |                                  |
|              | R5F2L368CNFP | 64K            | 8K         |                    |                                 |              |        |     |            |            |           |            |    |        |      |       |      |       |       |       |        |        |        |      |                   |                                |          |         |      |                    |          |                |                |         |            | -20~85 | LQFP-64<br>(10x10) |                                  |
|              | R5F2L36ACDFA | 96K            | 10K        |                    |                                 |              |        |     |            |            |           |            |    |        |      |       |      |       |       |       |        |        |        |      |                   |                                |          |         |      |                    |          |                |                |         |            | -40~85 | LQFP-64<br>(14x14) |                                  |
|              | R5F2L36ACDFP | 96K            | 10K        |                    |                                 |              |        |     |            |            |           |            |    |        |      |       |      |       |       |       |        |        |        |      |                   |                                |          |         |      |                    |          |                |                |         |            | -40~85 | LQFP-64<br>(10x10) |                                  |
|              | R5F2L36ACNFA | 96K            | 10K        |                    |                                 |              |        |     |            |            |           |            |    |        |      |       |      |       |       |       |        |        |        |      |                   |                                |          |         |      |                    |          |                |                |         |            | -20~85 | LQFP-64<br>(14x14) |                                  |
|              | R5F2L36ACNFP | 96K            | 10K        |                    |                                 |              |        |     |            |            |           |            |    |        |      |       |      |       |       |       |        |        |        |      |                   |                                |          |         |      |                    |          |                |                |         |            | -20~85 | LQFP-64<br>(10x10) |                                  |
|              | R5F2L36CCDFA | 128K           | 10K        |                    |                                 |              |        |     |            |            |           |            |    |        |      |       |      |       |       |       |        |        |        |      |                   |                                |          |         |      |                    |          |                |                |         |            | -40~85 | LQFP-64<br>(14x14) |                                  |
|              | R5F2L36CCDFP | 128K           | 10K        |                    |                                 |              |        |     |            |            |           |            |    |        |      |       |      |       |       |       |        |        |        |      |                   |                                |          |         |      |                    |          |                |                |         |            | -40~85 | LQFP-64<br>(10x10) |                                  |
|              | R5F2L36CCNFA | 128K           | 10K        |                    |                                 |              |        |     |            |            |           |            |    |        |      |       |      |       |       |       |        |        |        |      |                   |                                |          |         |      |                    |          |                |                |         |            | -20~85 | LQFP-64<br>(14x14) |                                  |
| R5F2L36CCNFP | 128K         | 10K            | -20~85     | LQFP-64<br>(10x10) |                                 |              |        |     |            |            |           |            |    |        |      |       |      |       |       |       |        |        |        |      |                   |                                |          |         |      |                    |          |                |                |         |            |        |                    |                                  |
| R8C/L38C     | R5F2L387CDFA | <del>48K</del> | 6K         | 4K                 | 20MHz/2.7-5.5V<br>5MHz/1.8-5.5V | 50@20MHz     | 68     | -   | ○          | 低速<br>125k | ○         | ○          | ○  | 10位x16 | 8位x2 | 3     | 4    | 14    | 15    | 11    | 2      | 1      | 1      | ○    | 1/2<br>1/3<br>1/4 | 静态<br>1/2<br>1/3<br>1/4<br>1/8 | 8        | 48⑤     | 3    | -                  | 1        | 1              | -              | 1       | 16         | -40~85 | LQFP-80<br>(14x14) | 家电应用、<br>办公设备、<br>音频设备、<br>消费类电子 |
|              | R5F2L387CDFP | 48K            | 6K         |                    |                                 |              |        |     |            |            |           |            |    |        |      |       |      |       |       |       |        |        |        |      |                   |                                |          |         |      |                    |          |                |                |         |            | -40~85 | LQFP-80<br>(12x12) |                                  |
|              | R5F2L387CNFA | 48K            | 6K         |                    |                                 |              |        |     |            |            |           |            |    |        |      |       |      |       |       |       |        |        |        |      |                   |                                |          |         |      |                    |          |                |                |         |            | -20~85 | LQFP-80<br>(14x14) |                                  |
|              | R5F2L387CNFP | 48K            | 6K         |                    |                                 |              |        |     |            |            |           |            |    |        |      |       |      |       |       |       |        |        |        |      |                   |                                |          |         |      |                    |          |                |                |         |            | -20~85 | LQFP-80<br>(12x12) |                                  |
|              | R5F2L388CDFA | 64K            | 8K         |                    |                                 |              |        |     |            |            |           |            |    |        |      |       |      |       |       |       |        |        |        |      |                   |                                |          |         |      |                    |          |                |                |         |            | -40~85 | LQFP-80<br>(14x14) |                                  |
|              | R5F2L388CDFP | 64K            | 8K         |                    |                                 |              |        |     |            |            |           |            |    |        |      |       |      |       |       |       |        |        |        |      |                   |                                |          |         |      |                    |          |                |                |         |            | -40~85 | LQFP-80<br>(12x12) |                                  |

R8C族Lx系列

| 群        | 型号           | 存储器         |            | 最高工作频率/工作电压 | 最小指令执行时间(ns)                    | I/O端口②   | 时钟          |     | 电压检测            |            | AD转换 | DA转换 | 定时器位数  |           | 定时器功能      |    |     |      |      |       | LCD驱动控制电路 |        |        | 串行接口④  |                                |           |          | CAN模块(Channel) | LIN模块(Channel) | 外部中断引脚数 | 工作温度范围(°C) | 封装(mm) | 应用领域 |         |        |                     |                                  |
|----------|--------------|-------------|------------|-------------|---------------------------------|----------|-------------|-----|-----------------|------------|------|------|--------|-----------|------------|----|-----|------|------|-------|-----------|--------|--------|--------|--------------------------------|-----------|----------|----------------|----------------|---------|------------|--------|------|---------|--------|---------------------|----------------------------------|
|          |              | ROM(bytes)① | RAM(bytes) |             |                                 |          | 数据闪存(bytes) | PLL | 副时钟(32.768kHz)③ | 内部振荡器(Hz)③ |      |      | 振荡停止检测 | 上电复位(POR) | 低电压检测(LVD) | 8位 | 16位 | 输入捕捉 | 输出比较 | PWM输出 | 事件计数器     | 二相编码输入 | 三相变频控制 | 看门狗定时器 | 偏置电路                           | 公共输出最大引脚数 | 段输出最大引脚数 |                |                |         |            |        |      | 时钟同步/异步 | 串行接口   | I <sup>2</sup> C总线  | SSU/特殊串口                         |
| R8C/L38C | R5F2L388CNFA | 64K         | 8K         | 4K          | 20MHz/2.7~5.5V<br>5MHz/1.8~5.5V | 50@20MHz | 68          | -   | ○               | 低速<br>125k | ○    | ○    | ○      | 10位x16    | 8位x2       | 3  | 4   | 14   | 15   | 11    | 2         | 1      | 1      | ○      | 静态<br>1/2<br>1/3<br>1/4<br>1/8 | 8         | 48⑤      | 3              | -              | 1       | 1          | -      | 1    | 16      | -20~85 | LQFP-80<br>(14x14)  | 家电应用、<br>办公设备、<br>音频设备、<br>消费类电子 |
|          | R5F2L388CNFP | 64K         | 8K         |             |                                 |          |             |     |                 |            |      |      |        |           |            |    |     |      |      |       |           |        |        |        |                                |           |          |                |                |         |            |        |      |         | -20~85 | LQFP-80<br>(12x12)  |                                  |
|          | R5F2L38ACDFA | 96K         | 10K        |             |                                 |          |             |     |                 |            |      |      |        |           |            |    |     |      |      |       |           |        |        |        |                                |           |          |                |                |         |            |        |      |         | -40~85 | LQFP-80<br>(14x14)  |                                  |
|          | R5F2L38ACDFP | 96K         | 10K        |             |                                 |          |             |     |                 |            |      |      |        |           |            |    |     |      |      |       |           |        |        |        |                                |           |          |                |                |         |            |        |      |         | -40~85 | LQFP-80<br>(12x12)  |                                  |
|          | R5F2L38ACNFA | 96K         | 10K        |             |                                 |          |             |     |                 |            |      |      |        |           |            |    |     |      |      |       |           |        |        |        |                                |           |          |                |                |         |            |        |      |         | -20~85 | LQFP-80<br>(14x14)  |                                  |
|          | R5F2L38ACNFP | 96K         | 10K        |             |                                 |          |             |     |                 |            |      |      |        |           |            |    |     |      |      |       |           |        |        |        |                                |           |          |                |                |         |            |        |      |         | -20~85 | LQFP-80<br>(12x12)  |                                  |
|          | R5F2L38CCDFA | 128K        | 10K        |             |                                 |          |             |     |                 |            |      |      |        |           |            |    |     |      |      |       |           |        |        |        |                                |           |          |                |                |         |            |        |      |         | -40~85 | LQFP-80<br>(14x14)  |                                  |
|          | R5F2L38CCDFP | 128K        | 10K        |             |                                 |          |             |     |                 |            |      |      |        |           |            |    |     |      |      |       |           |        |        |        |                                |           |          |                |                |         |            |        |      |         | -40~85 | LQFP-80<br>(12x12)  |                                  |
|          | R5F2L38CCNFA | 128K        | 10K        |             |                                 |          |             |     |                 |            |      |      |        |           |            |    |     |      |      |       |           |        |        |        |                                |           |          |                |                |         |            |        |      |         | -20~85 | LQFP-80<br>(14x14)  |                                  |
|          | R5F2L38CCNFP | 128K        | 10K        |             |                                 |          |             |     |                 |            |      |      |        |           |            |    |     |      |      |       |           |        |        |        |                                |           |          |                |                |         |            |        |      |         | -20~85 | LQFP-80<br>(12x12)  |                                  |
| R8C/L3AC | R5F2L3A7CDFA | 48K         | 6K         | 4K          | 20MHz/2.7~5.5V<br>5MHz/1.8~5.5V | 50@20MHz | 88          | -   | ○               | 低速<br>125k | ○    | ○    | ○      | 10位x20    | 8位x2       | 3  | 4   | 14   | 15   | 11    | 2         | 1      | 1      | ○      | 静态<br>1/2<br>1/3<br>1/4<br>1/8 | 8         | 56⑤      | 3              | -              | 1       | 1          | -      | 1    | 16      | -40~85 | LQFP-100<br>(14x20) | 家电应用、<br>办公设备、<br>音频设备、<br>消费类电子 |
|          | R5F2L3A7CDFP | 48K         | 6K         |             |                                 |          |             |     |                 |            |      |      |        |           |            |    |     |      |      |       |           |        |        |        |                                |           |          |                |                |         |            |        |      |         | -40~85 | LQFP-100<br>(14x14) |                                  |
|          | R5F2L3A7CNFA | 48K         | 6K         |             |                                 |          |             |     |                 |            |      |      |        |           |            |    |     |      |      |       |           |        |        |        |                                |           |          |                |                |         |            |        |      |         | -20~85 | LQFP-100<br>(14x20) |                                  |
|          | R5F2L3A7CNFP | 48K         | 6K         |             |                                 |          |             |     |                 |            |      |      |        |           |            |    |     |      |      |       |           |        |        |        |                                |           |          |                |                |         |            |        |      |         | -20~85 | LQFP-100<br>(14x14) |                                  |
|          | R5F2L3A8CDFA | 64K         | 8K         |             |                                 |          |             |     |                 |            |      |      |        |           |            |    |     |      |      |       |           |        |        |        |                                |           |          |                |                |         |            |        |      |         | -40~85 | LQFP-100<br>(14x20) |                                  |
|          | R5F2L3A8CDFP | 64K         | 8K         |             |                                 |          |             |     |                 |            |      |      |        |           |            |    |     |      |      |       |           |        |        |        |                                |           |          |                |                |         |            |        |      |         | -40~85 | LQFP-100<br>(14x14) |                                  |
|          | R5F2L3A8CNFA | 64K         | 8K         |             |                                 |          |             |     |                 |            |      |      |        |           |            |    |     |      |      |       |           |        |        |        |                                |           |          |                |                |         |            |        |      |         | -20~85 | LQFP-100<br>(14x20) |                                  |
|          | R5F2L3A8CNFP | 64K         | 8K         |             |                                 |          |             |     |                 |            |      |      |        |           |            |    |     |      |      |       |           |        |        |        |                                |           |          |                |                |         |            |        |      |         | -20~85 | LQFP-100<br>(14x14) |                                  |
|          | R5F2L3AACDFA | 96K         | 10K        |             |                                 |          |             |     |                 |            |      |      |        |           |            |    |     |      |      |       |           |        |        |        |                                |           |          |                |                |         |            |        |      |         | -40~85 | LQFP-100<br>(14x20) |                                  |
|          | R5F2L3AACDFP | 96K         | 10K        |             |                                 |          |             |     |                 |            |      |      |        |           |            |    |     |      |      |       |           |        |        |        |                                |           |          |                |                |         |            |        |      |         | -40~85 | LQFP-100<br>(14x14) |                                  |
|          | R5F2L3AACNFA | 96K         | 10K        |             |                                 |          |             |     |                 |            |      |      |        |           |            |    |     |      |      |       |           |        |        |        |                                |           |          |                |                |         |            |        |      |         | -20~85 | LQFP-100<br>(14x20) |                                  |
|          | R5F2L3AACNFP | 96K         | 10K        |             |                                 |          |             |     |                 |            |      |      |        |           |            |    |     |      |      |       |           |        |        |        |                                |           |          |                |                |         |            |        |      |         | -20~85 | LQFP-100<br>(14x14) |                                  |
|          | R5F2L3ACCDFA | 128K        | 10K        |             |                                 |          |             |     |                 |            |      |      |        |           |            |    |     |      |      |       |           |        |        |        |                                |           |          |                |                |         |            |        |      |         | -40~85 | LQFP-100<br>(14x20) |                                  |
|          | R5F2L3ACCDFP | 128K        | 10K        |             |                                 |          |             |     |                 |            |      |      |        |           |            |    |     |      |      |       |           |        |        |        |                                |           |          |                |                |         |            |        |      |         | -40~85 | LQFP-100<br>(14x14) |                                  |
|          | R5F2L3ACCNFA | 128K        | 10K        |             |                                 |          |             |     |                 |            |      |      |        |           |            |    |     |      |      |       |           |        |        |        |                                |           |          |                |                |         |            |        |      |         | -20~85 | LQFP-100<br>(14x20) |                                  |
|          | R5F2L3ACCNFP | 128K        | 10K        |             |                                 |          |             |     |                 |            |      |      |        |           |            |    |     |      |      |       |           |        |        |        |                                |           |          |                |                |         |            |        |      |         | -20~85 | LQFP-100<br>(14x14) |                                  |

注：  
 ① R8C/Lx芯片的ROM类型均为Flash。  
 ② 包括LED驱动端口。  
 ③ 此处列出的均为典型值，详细信息请参照各个芯片的使用手册。  
 ④ 串行接口(时钟同步/异步)代表此接口既可以作为时钟同步串口接口使用，也可以作为时钟异步串行接口使用。时钟同步串行接口指此接口只能作为时钟同步串行接口使用。  
 ⑤ 选择4个公共输出引脚时。

### R8C族开发工具

| 系列      | 群                  | 介绍性工具   |            | 硬件工具               |                |  |  |                             |  |  |      |       | 编程工具   |  | 软件工具  |   |  |                                  |                |                |
|---------|--------------------|---|------------|--------------------|----------------|--|--|-----------------------------|--|--|------|-------|--|--|---|---|--|----------------------------------|----------------|----------------|
|         |                    | Starter Kit   | On-chip调试器 |                    |                | 小型仿真器(Compact Emulator)  |  | 全功能仿真器(In-circuit Emulator) |  |  |      |       |  | 编程器  | IC Socket板  | 编译器   | 集成开发环境                                       | 实时OS                             |                |                |
|         |                    |   | E8         | E8a                | M3A-0665       | 仿真器  | 转换板  | PC7501                      |  |  | E100 |       |  |  |   |   |  |                                  |                |                |
|         |                    |   |            |                    |                |  |  | 主单元                         | 仿真头  | 转换板  | 主单元  | MCU单元 | 转换板  |  |   |   |  |                                  |                |                |
| R8C/1x  | R8C/18             | R0K5211B4S001BE                                       | ○          | ○                  | ○              | R0E521000<br>CPE00   | R0E521174CSJ00<br>(LSSOP-20, 0.65mm)<br>R0E521174CDB00<br>(SDIP-20, 1.778mm) | PC7501                      | R0E521000<br>EPB00   | R0E521174CSJ00<br>(LSSOP-20, 0.65mm)<br>R0E521174CDB00<br>(SDIP-20, 1.778mm) | -    | -     | -  | Flash Development<br>Toolkit<br>(ROC00000FDW04R)<br>or<br>M16C Flash Starter<br>M3A-0806 | M3A-0114  | C Compiler Package<br>for R8C, M16C<br>(R32C/M32C/M16C)<br>Series:<br>(R0C52100XSW05R)<br>(MISRA C可选) | High-<br>performance<br>Embedded<br>Workshop | M3T-MR30/4*14<br>or<br>MR8C/4*14 |                |                |
|         | R8C/19             |   |            |                    |                |  |  |                             |  |  |      |       |  |  |   |   |  |                                  |                |                |
|         | R8C/1A             |   |            |                    |                |  |  |                             |  |  |      |       |  |  |   |   |  |                                  |                |                |
|         | R8C/1B             |   |            |                    |                |  |  |                             |  |  |      |       |  |  |   |   |  |                                  |                |                |
| R8C/2x  | R8C/20             | R0K521237S001BE                                       | ○          | ○                  | -              | R0E521000<br>CPE00   | R0E521237CFK00<br>(LQFP-48, 0.5mm)   | PC7501                      | R0E521000<br>CPE00   | R0E521237CFK00<br>(LQFP-48, 0.5mm)   | -    | -     | Flash Development<br>Toolkit<br>(ROC00000FDW04R)<br>or<br>M16C Flash Starter<br>M3A-0806 | R0K521238Z000BR  | C Compiler Package<br>for R8C, M16C<br>(R32C/M32C/M16C)<br>Series:<br>(R0C52100XSW05R)<br>(MISRA C可选) | High-<br>performance<br>Embedded<br>Workshop  | M3T-MR30/4*14<br>or<br>MR8C/4*14             |                                  |                |                |
|         | R8C/21             |   |            |                    |                |  |  |                             |  |  |      |       |  |  |   |   |  |                                  |                |                |
|         | R8C/22             |   |            |                    |                |  |  |                             |  |  |      |       |  |  |   |   |  |                                  |                |                |
|         | R8C/23             |   |            |                    |                |  |  |                             |  |  |      |       |  |  |   |   |  |                                  |                |                |
|         | R8C/24             | R0K521256S001BE                                       |            |                    |                | R0E521258CFJ00<br>(LQFP-52, 0.65mm)                                      | R0E521258CFJ00<br>(LQFP-52, 0.65mm)  | R0K521258Z000BR             |  |  |      |       |  |  |   |   |  |                                  |                |                |
|         | R8C/25             |   |            |                    |                |  |  |                             |  |  |      |       |  |  |   |   |  |                                  |                |                |
|         | R8C/26             | R0K521276S001BE                                       |            |                    |                | R0E521276CFG00<br>(LQFP-32, 0.8mm)                                       | R0E521276CFG00<br>(LQFP-32, 0.8mm)   | R0K521276Z000BR             |  |  |      |       |  |  |   |   |  |                                  |                |                |
|         | R8C/27             |   |            |                    |                |  |  |                             |  |  |      |       |  |  |   |   |  |                                  |                |                |
|         | R8C/28             | R0K5212D8S001BE                                       |            |                    |                | R0E521174CSJ00<br>(LSSOP-20, 0.65mm)                                     | R0E521174CSJ00<br>(LSSOP-20, 0.65mm)   | M3A-0114                    |  |  |      |       |  |  |   |   |  |                                  |                |                |
|         | R8C/29             |   |            |                    |                |  |  |                             |  |  |      |       |  |  |   |   |  |                                  |                |                |
|         | R8C/2A             |   |            |                    |                | R0E5212BACFG00<br>(LQFP-64, 0.8mm)<br>R0E5212BACFK00<br>(LQFP-64, 0.5mm) | R0E5212BACFG00<br>(LQFP-64, 0.8mm)<br>R0E5212BACFK00<br>(LQFP-64, 0.5mm)     |                             | R0K5212B8Z000BR<br>(64P6J-A)<br>R0K5212B8Z010BR<br>(64P6Q-A) |  |      |       |  |  |   |   |  |                                  |                |                |
|         | R8C/2B             |   |            |                    |                |  |  |                             |  |  |      |       |  |  |   |   |  |                                  |                |                |
|         | R8C/2C             | R0K5212F4S000BE                                       |            |                    |                | R0E5212DACFK00<br>(LQFP-80, 0.5mm)                                       | R0E5212DACFK00<br>(LQFP-80, 0.5mm)   | R0K5212D8Z000BR             |  |  |      |       |  |  |   |   |  |                                  |                |                |
|         | R8C/2D             |   |            |                    |                |  |  |                             |  |  |      |       |  |  |   |   |  |                                  |                |                |
|         | R8C/2E             | -   |            |                    |                | -  | -  | -                           | Flash Development<br>Toolkit<br>(ROC00000FDW04R)             | -  |      |       |  |  |   |   |  |                                  |                |                |
|         | R8C/2F             |   |            |                    |                |  |  |                             |  |  |      |       |  |  |   |   |  |                                  |                |                |
| R8C/2G  |                    |   |            |                    |                |  |  |                             |  |  |      |       |  |  |   |   |  |                                  |                |                |
| R8C/2H  |                    |   |            |                    |                |  |  |                             |  |  |      |       |  |  |   |   |  |                                  |                |                |
| R8C/2J  | -                  | -   | -          | -                  | -              |  |  |                             |  |  |      |       |  |  |   |   |  |                                  |                |                |
| R8C/2K  |                    |   |            |                    |                |  |  |                             |  |  |      |       |  |  |   |   |  |                                  |                |                |
| R8C/2L  | R0E521000<br>CPE00 | R0E5212L4CFG00<br>converter board for<br>PLQP0032GB-A | PC7501     | R0E521000<br>CPE00 | R0E5212L4CFG00 |  |  |                             |  |  |      |       |  |  |   |   |  |                                  |                |                |
| R8C/3x  | R8C/32C            | R0K5212F4S000BE                                       | ○          | ○                  | -              | -  | -  | -                           | -  | -  | -    | -     | Flash Development<br>Toolkit<br>(ROC00000FDW04R)   | -  | C Compiler Package<br>for R8C, M16C<br>(R32C/M32C/M16C)<br>Series:<br>(R0C52100XSW05R)<br>(MISRA C可选) | High-<br>performance<br>Embedded<br>Workshop  | M3T-MR30/4<br>or<br>MR8C/4                   |                                  |                |                |
|         | R8C/33C            |   |            |                    |                |  |  |                             |  |  |      |       |  |  |   |   |  |                                  |                |                |
|         | R8C/34E            | -   |            |                    |                |  |  |                             |  |  |      |       |  |  |   |   |  | R0E001000EMU00                   | R0E521300MCU00 | R0E53032ACSJ00 |
|         | R8C/34F            |   |            |                    |                |  |  |                             |  |  |      |       |  |  |   |   |  |                                  |                |                |
|         | R8C/34G            | R0K5212F4S000BE                                       |            |                    |                |  |  |                             |  |  |      |       |  |  |   |   |  | R0E001000EMU00                   | R0E521300MCU00 | R0E53034ECFK60 |
|         | R8C/34H            |   |            |                    |                |  |  |                             |  |  |      |       |  |  |   |   |  |                                  |                |                |
|         | R8C/35C            | -   |            |                    |                |  |  |                             |  |  |      |       |  |  |   |   |  | R0E001000EMU00                   | R0E521300MCU00 | R0E53035ACFJ50 |
|         | R8C/36E            |   |            |                    |                |  |  |                             |  |  |      |       |  |  |   |   |  |                                  |                |                |
|         | R8C/36F            | R0K5212F4S000BE                                       |            |                    |                |  |  |                             |  |  |      |       |  |  |   |   |  | R0E001000EMU00                   | R0E521300MCU00 | R0E53036ACFK40 |
|         | R8C/36G            |   |            |                    |                |  |  |                             |  |  |      |       |  |  |   |   |  |                                  |                |                |
|         | R8C/36H            | -   |            |                    |                |  |  |                             |  |  |      |       |  |  |   |   |  | R0E001000EMU00                   | R0E521300MCU00 | R0E53038ACFK30 |
|         | R8C/38E            |   |            |                    |                |  |  |                             |  |  |      |       |  |  |   |   |  |                                  |                |                |
| R8C/38F | R0K5212F4S000BE    | -   | -          | -                  |                |  |  |                             |  |  |      |       |  |  |   |   |  |                                  |                |                |
| R8C/38G |                    |   |            |                    |                |  |  |                             |  |  |      |       |  |  |   |   |  |                                  |                |                |
| R8C/38H |                    |   |            |                    |                |  |  |                             |  |  |      |       |  |  |   |   |  |                                  |                |                |

# R8C族开发工具

| 系列      | 群                    | 介绍性工具                   | 硬件工具       |     |          |                         |     |                             |     |     |                |       | 编程工具 |  | 软件工具       |  |  |                            |
|---------|----------------------|-------------------------|------------|-----|----------|-------------------------|-----|-----------------------------|-----|-----|----------------|-------|------|--|------------|--|--|----------------------------|
|         |                      | Starter Kit             | On-chip调试器 |     |          | 小型仿真器(Compact Emulator) |     | 全功能仿真器(In-circuit Emulator) |     |     |                |       |      | 编程器  | IC Socket板 | 编译器  | 集成开发环境                                       | 实时OS                       |
|         |                      |                         | E8         | E8a | M3A-0665 | 仿真器                     | 转换板 | PC7501                      |     |     | E100           |       |      |  |            |  |  |                            |
|         |                      |                         |            |     |          |                         |     | 主单元                         | 仿真头 | 转换板 | 主单元            | MCU单元 | 转换板  |  |            |  |  |                            |
| R8C/L3x | R8C/L35A<br>R8C/L35B | R0K52L3A0S000BE<br>#WS① | -          | ○   | -        | -                       | -   | -                           | -   | -   | R0E001000EMU00 | 开发中   | 开发中  | Flash Development<br>Toolkit<br>(R0C00000FDW04R) | -          | C Compiler Package<br>for R8C, M16C<br>(R32C/M32C/M16C)<br>Series:<br>(R0C52100XSW05FR)<br>(MISRA C可选) | High-<br>performance<br>Embedded<br>Workshop | M3T-MR30/4<br>or<br>MR8C/4 |
|         | R8C/L36A<br>R8C/L36B |                         |            |     |          |                         |     |                             |     |     |                |       |      |  |            |  |  |                            |
|         | R8C/L38A<br>R8C/L38B |                         |            |     |          |                         |     |                             |     |     |                |       |      |  |            |  |  |                            |
|         | R8C/L3AA<br>R8C/L3AB |                         |            |     |          |                         |     |                             |     |     |                |       |      |  |            |  |  |                            |

注:

① 限量供应, 如需, 请联系供应商。

M16族M16C/30系列

| 群            | 型号            | 存储器        |            |        |             | 最高工作频率/工作电压                      | 最小指令执行时间(ns) | 外部总线扩展<br>地址空间(bytes) | I/O接口 | 时钟     |       |        |    | 电压检测<br>上电复位(POR)<br>低电压检测(LVD) | AD转换 | DMAC(channel) | CRC功能 | 定时器位数 |      |      |       | 定时器功能 |        |          |        | 串行接口②             |          |      |          | 外部中断引脚数  | 工作温度范围(°C)                              | 封装(mm) | 应用领域 |       |                 |
|--------------|---------------|------------|------------|--------|-------------|----------------------------------|--------------|-----------------------|-------|--------|-------|--------|----|---------------------------------|------|---------------|-------|-------|------|------|-------|-------|--------|----------|--------|-------------------|----------|------|----------|----------|---|--------|------|-------|-----------------|
|              |               | ROM(bytes) | RAM(bytes) | ROM类型① | 数据闪存(bytes) |                                  |              |                       |       | PLL    | 内部振荡器 | 振荡停止检测 | 8位 |                                 |      |               |       | 16位   | 输入捕捉 | 输出比较 | PWM输出 | 事件计数器 | 二相编码输入 | 三相变频控制   | 看门狗定时器 | 串行接口<br>(时钟同步/异步) | 时钟同步串行接口 | FC总线 | SSU/特殊串口 |          |   |        |      | IEBUS | SIM(Smart Card) |
|              |               |            |            |        |             |                                  |              |                       |       |        |       |        |    |                                 |      |               |       |       |      |      |       |       |        |          |        |                   |          |      |          |          |   |        |      |       |                 |
| M16C/30P     | M30302FAPFP   | 24K        | 5K         | F      | 4K          | 16MHz/3.0~5.5V<br>10MHz/2.7~5.5V | 62.5@16MHz   | 1M                    | 88    | 10位x18 | 2     | 0      | -  | 6                               | -    | -             | 3     | 6     | 1    | -    | 0     | 3     | -      | 0        | 0      | 0                 | 0        | 10   | -20~85   | QFP-100  | 音频、照相机、电视机、<br>家电产品、办公/工业设备、<br>通信/便携设备 |        |      |       |                 |
|              | M30302FAPGP   | 48K        |            |        |             |                                  |              |                       |       |        | 2     | 0      | -  | 6                               | -    | -             | 3     | 6     | 1    | -    | 0     | 3     | -      | 0        | 0      | 0                 | 0        | 10   | -20~85   | LQFP-100 |   |        |      |       |                 |
|              | M30302FCPPFP  | 64K        |            |        |             |                                  |              |                       |       |        | 2     | 0      | -  | 6                               | -    | -             | 3     | 6     | 1    | -    | 0     | 3     | -      | 0        | 0      | 0                 | 0        | 10   | -20~85   | QFP-100  |   |        |      |       |                 |
|              | M30302FCPPGP  | 24K        |            |        |             |                                  |              |                       |       |        | 2     | 0      | -  | 6                               | -    | -             | 3     | 6     | 1    | -    | 0     | 3     | -      | 0        | 0      | 0                 | 0        | 10   | -20~85   | LQFP-100 |   |        |      |       |                 |
|              | M30302FEPFP   | 64K        | 6K         | F      | -           |                                  |              |                       |       |        | 2     | 0      | -  | 6                               | -    | -             | 3     | 6     | 1    | -    | 0     | 3     | -      | 0        | 0      | 0                 | 0        | 10   | -20~85   | QFP-100  |   |        |      |       |                 |
|              | M30302FEPGP   | 24K        |            |        |             |                                  |              |                       |       |        | 2     | 0      | -  | 6                               | -    | -             | 3     | 6     | 1    | -    | 0     | 3     | -      | 0        | 0      | 0                 | 0        | 10   | -20~85   | LQFP-100 |   |        |      |       |                 |
|              | M30302GAPFP③  | 64K        | 5K         | F      | -           |                                  |              |                       |       |        | 2     | 0      | -  | 6                               | -    | -             | 3     | 6     | 1    | -    | 0     | 3     | -      | 0        | 0      | 0                 | 0        | 10   | -20~85   | QFP-100  |   |        |      |       |                 |
|              | M30302GAPGP③  | 24K        |            |        |             |                                  |              |                       |       |        | 2     | 0      | -  | 6                               | -    | -             | 3     | 6     | 1    | -    | 0     | 3     | -      | 0        | 0      | 0                 | 0        | 10   | -20~85   | LQFP-100 |   |        |      |       |                 |
|              | M30302GCPFP③  | 64K        |            |        |             |                                  |              |                       |       |        | 2     | 0      | -  | 6                               | -    | -             | 3     | 6     | 1    | -    | 0     | 3     | -      | 0        | 0      | 0                 | 0        | 10   | -20~85   | QFP-100  |   |        |      |       |                 |
|              | M30302GCPGP③  | 24K        |            |        |             |                                  |              |                       |       |        | 2     | 0      | -  | 6                               | -    | -             | 3     | 6     | 1    | -    | 0     | 3     | -      | 0        | 0      | 0                 | 0        | 10   | -20~85   | LQFP-100 |   |        |      |       |                 |
|              | M30302GDPFP③  | 64K        | 6K         | F      | -           |                                  |              |                       |       |        | 2     | 0      | -  | 6                               | -    | -             | 3     | 6     | 1    | -    | 0     | 3     | -      | 0        | 0      | 0                 | 0        | 10   | -20~85   | QFP-100  |   |        |      |       |                 |
|              | M30302GDPPGP③ | 24K        |            |        |             |                                  |              |                       |       |        | 2     | 0      | -  | 6                               | -    | -             | 3     | 6     | 1    | -    | 0     | 3     | -      | 0        | 0      | 0                 | 0        | 10   | -20~85   | LQFP-100 |   |        |      |       |                 |
|              | M30302GEPFP③  | 64K        |            |        |             |                                  |              |                       |       |        | 2     | 0      | -  | 6                               | -    | -             | 3     | 6     | 1    | -    | 0     | 3     | -      | 0        | 0      | 0                 | 0        | 10   | -20~85   | QFP-100  |   |        |      |       |                 |
|              | M30302GEGP③   | 24K        |            |        |             |                                  |              |                       |       |        | 2     | 0      | -  | 6                               | -    | -             | 3     | 6     | 1    | -    | 0     | 3     | -      | 0        | 0      | 0                 | 0        | 10   | -20~85   | LQFP-100 |   |        |      |       |                 |
|              | M30302GGFPFP③ | 64K        | 12K        | F      | -           |                                  |              |                       |       |        | 2     | 0      | -  | 6                               | -    | -             | 3     | 6     | 1    | -    | 0     | 3     | -      | 0        | 0      | 0                 | 0        | 10   | -20~85   | QFP-100  |   |        |      |       |                 |
|              | M30302GGPPGP③ | 24K        |            |        |             |                                  |              |                       |       |        | 2     | 0      | -  | 6                               | -    | -             | 3     | 6     | 1    | -    | 0     | 3     | -      | 0        | 0      | 0                 | 0        | 10   | -20~85   | LQFP-100 |   |        |      |       |                 |
|              | M30302SPFP    | 64K        | 24K        | L      | -           |                                  |              |                       |       |        | 2     | 0      | -  | 6                               | -    | -             | 3     | 6     | 1    | -    | 0     | 3     | -      | 0        | 0      | 0                 | 0        | 10   | -20~85   | QFP-100  |   |        |      |       |                 |
|              | M30302SPGP    | 24K        |            |        |             |                                  |              |                       |       |        | 2     | 0      | -  | 6                               | -    | -             | 3     | 6     | 1    | -    | 0     | 3     | -      | 0        | 0      | 0                 | 0        | 10   | -20~85   | LQFP-100 |   |        |      |       |                 |
|              | M30304GDPFP③  | 64K        | 12K        | F      | -           |                                  |              |                       |       |        | 2     | 0      | -  | 6                               | -    | -             | 3     | 6     | 1    | -    | 0     | 3     | -      | 0        | 0      | 0                 | 0        | 10   | -20~85   | QFP-100  |   |        |      |       |                 |
|              | M30304GDPPGP③ | 24K        |            |        |             |                                  |              |                       |       |        | 2     | 0      | -  | 6                               | -    | -             | 3     | 6     | 1    | -    | 0     | 3     | -      | 0        | 0      | 0                 | 0        | 10   | -20~85   | LQFP-100 |   |        |      |       |                 |
| M30304GEPFP③ | 64K           | 2          |            |        |             | 0                                | -            | 6                     | -     | -      | 3     | 6      | 1  | -                               | 0    | 3             | -     | 0     | 0    | 0    | 0     | 10    | -20~85 | QFP-100  |        |                   |          |      |          |          |   |        |      |       |                 |
| M30304GEGP③  | 24K           | 2          |            |        |             | 0                                | -            | 6                     | -     | -      | 3     | 6      | 1  | -                               | 0    | 3             | -     | 0     | 0    | 0    | 0     | 10    | -20~85 | LQFP-100 |        |                   |          |      |          |          |   |        |      |       |                 |
| M30304GEPFP③ | 64K           | 24K        | F          | -      | 2           | 0                                | -            | 6                     | -     | -      | 3     | 6      | 1  | -                               | 0    | 3             | -     | 0     | 0    | 0    | 0     | 10    | -20~85 | QFP-100  |        |                   |          |      |          |          |   |        |      |       |                 |
| M30304GEGP③  | 24K           |            |            |        | 2           | 0                                | -            | 6                     | -     | -      | 3     | 6      | 1  | -                               | 0    | 3             | -     | 0     | 0    | 0    | 0     | 10    | -20~85 | LQFP-100 |        |                   |          |      |          |          |   |        |      |       |                 |

注：  
 ① M16C/30系列芯片的ROM类型为:F(Flash memory)、L(ROMless)。  
 ② 串行接口(时钟同步/异步)代表此接口既可以作为时钟同步串行接口使用，也可以作为时钟异步串行接口使用。时钟同步串行接口指此接口只能作为时钟同步串行接口使用。  
 ③ 这些芯片为一次编程的Flash版本。

M16族M16C/50系列

| 群                    | 型号          | 存储器        |            |        |             | 最高工作频率/工作电压    | 最小指令执行时间(ns) | I/O端口 | 时钟     |                |       |        | AD转换 | DA转换 | 定时器位数     |            | 定时器功能 |     |      |      |       |       | 串行接口②  |        |      |        |               | 封装(mm) | 应用领域 |                    |          |                |                |         |                  |
|----------------------|-------------|------------|------------|--------|-------------|----------------|--------------|-------|--------|----------------|-------|--------|------|------|-----------|------------|-------|-----|------|------|-------|-------|--------|--------|------|--------|---------------|--------|------|--------------------|----------|----------------|----------------|---------|------------------|
|                      |             | ROM(bytes) | RAM(bytes) | ROM类型① | 数据闪存(bytes) |                |              |       | PLL    | 副时钟(32.768kHz) | 内部振荡器 | 振荡停止检测 |      |      | 上电复位(POR) | 低电压检测(LVD) | 8位    | 16位 | 输入捕捉 | 输出比较 | PWM输出 | 事件计数器 | 二相编码输入 | 三相变频控制 | 实时时钟 | 看门狗定时器 | 串行接口(时钟同步/异步) |        |      | I <sup>2</sup> C总线 | SSU/特殊串口 | CAN模块(Channel) | LIN模块(Channel) | 外部中断引脚数 |                  |
|                      |             |            |            |        |             |                |              |       |        |                |       |        |      |      |           |            |       |     |      |      |       |       |        |        |      |        |               |        |      |                    |          |                |                |         |                  |
| M16C/5LD<br>M16C/56D | R5F35623DFE | 96K        | 8K         | F      | 4Kx2        | 32MHz/3.0~5.5V | 31.25@32MHz  | 71    | 0      | 0              | 0     | 0      | -    | 0    | 10位x27    | -          | 8     | 8   | 8    | 8    | 13    | 8     | 4      | 1      | 0    | 0      | 5             | -      | 2    | 1                  | -        | -              | 11             | -40~85  | 汽车电子(车身、安全系统、音响) |
|                      | R5F35626DFE | 128K       | 12K        |        |             |                |              |       | 0      | 0              | 0     | 0      | -    | 0    |           |            | 8     | 8   | 8    | 8    | 13    | 8     | 4      | 1      | 0    | 0      |               |        | 2    | 1                  | -        | -              | 11             |         |                  |
|                      | R5F3562EDFE | 256K       | 20K        |        |             |                |              |       | 0      | 0              | 0     | 0      | -    | 0    |           |            | 8     | 8   | 8    | 8    | 13    | 8     | 4      | 1      | 0    | 0      |               |        | 2    | 1                  | -        | -              | 11             |         |                  |
|                      | R5F35630DFF | 64K        | 4K         |        |             |                |              | 55    | 10位x16 | 0              | 0     | 0      | 0    | -    | 0         | 8          | 8     | 8   | 8    | 13   | 8     | 4     | 1      | 0      | 0    | 4      | 2             | 1      | -    | -                  | 11       |                |                |         |                  |
|                      | R5F35633DFF | 96K        | 8K         |        |             |                |              |       |        | 0              | 0     | 0      | 0    | -    | 0         | 8          | 8     | 8   | 8    | 13   | 8     | 4     | 1      | 0      | 0    | 2      | 1             | -      | -    | 11                 |          |                |                |         |                  |
|                      | R5F35636DFF | 128K       | 12K        |        |             |                |              |       |        | 0              | 0     | 0      | 0    | -    | 0         | 8          | 8     | 8   | 8    | 13   | 8     | 4     | 1      | 0      | 0    | 2      | 1             | -      | -    | 11                 |          |                |                |         |                  |
|                      | R5F3563EDFF | 256K       | 20K        |        |             |                |              | 71    | 10位x27 | 0              | 0     | 0      | 0    | -    | 0         | 8          | 8     | 8   | 8    | 13   | 8     | 4     | 1      | 0      | 0    | 5      | -             | 2      | 1    | 0                  | -        | 11             |                |         |                  |
|                      | R5F35L23DFE | 96K        | 8K         |        |             |                |              |       |        | 0              | 0     | 0      | 0    | -    | 0         | 8          | 8     | 8   | 13   | 8    | 4     | 1     | 0      | 0      | 2    |        |               | 1      | 0    | -                  | 11       |                |                |         |                  |
|                      | R5F35L26DFE | 128K       | 12K        |        |             |                |              |       |        | 0              | 0     | 0      | 0    | -    | 0         | 8          | 8     | 8   | 13   | 8    | 4     | 1     | 0      | 0      | 2    |        |               | 1      | 0    | -                  | 11       |                |                |         |                  |
|                      | R5F35L2EDFE | 256K       | 20K        |        |             |                |              | 55    | 10位x16 | 0              | 0     | 0      | 0    | -    | 0         | 8          | 8     | 8   | 8    | 13   | 8     | 4     | 1      | 0      | 0    | 4      | -             | 2      | 1    | 0                  | -        | 11             |                |         |                  |
|                      | R5F35L30DFF | 64K        | 4K         |        |             |                |              |       |        | 0              | 0     | 0      | 0    | -    | 0         | 8          | 8     | 8   | 13   | 8    | 4     | 1     | 0      | 0      | 2    |        |               | 1      | 0    | -                  | 11       |                |                |         |                  |
|                      | R5F35L33DFF | 96K        | 8K         |        |             |                |              |       |        | 0              | 0     | 0      | 0    | -    | 0         | 8          | 8     | 8   | 13   | 8    | 4     | 1     | 0      | 0      | 2    |        |               | 1      | 0    | -                  | 11       |                |                |         |                  |
|                      | R5F35L36DFF | 128K       | 12K        |        |             |                |              | 0     | 0      | 0              | 0     | -      | 0    | 8    | 8         | 8          | 8     | 13  | 8    | 4    | 1     | 0     | 0      | 2      | 1    | 0      | -             | 11     |      |                    |          |                |                |         |                  |
|                      | R5F35L3EDFF | 256K       | 20K        |        |             |                |              | 0     | 0      | 0              | 0     | -      | 0    | 8    | 8         | 8          | 8     | 13  | 8    | 4    | 1     | 0     | 0      | 2      | 1    | 0      | -             | 11     |      |                    |          |                |                |         |                  |

注：  
① M16C/50系列芯片的ROM类型均为F(Flash memory)。





M16C族M16C/60系列

Table with 18 columns: 群, 型号, 存储器, 最高工作频率/工作电压, 最小指令执行时间(us), 乘数器, 外部总线扩展, 时钟, 电压检测, AD转换, DA转换, DMAC(Channels), 定时器位数, 定时器功能, 串行接口2, 工作温度范围(°C), 封装(mm), 应用领域. It lists various microcontroller models like M16C/63, M16C/6C, M16C/64, and M16C/62P with their specifications.





M16族R32C/100系列

| 群                    | 型号          | 存储器        |            |        |             | 最高工作频率/工作电压    | 最小指令执行时间(ns) | 乘算器      | DMA                |           |             |        | 外部总线扩展 |         |       | 时钟  |                |           |        | 电压检测      |            | AD转换 | DA转换    | 定时器位数   |     | 定时器功能 |      |       |         |        | 串行接口②   |         |      |                    |          | 外部中断引脚数 | 工作温度范围(°C) | 封装(mm) | 应用领域 |              |               |
|----------------------|-------------|------------|------------|--------|-------------|----------------|--------------|----------|--------------------|-----------|-------------|--------|--------|---------|-------|-----|----------------|-----------|--------|-----------|------------|------|---------|---------|-----|-------|------|-------|---------|--------|---------|---------|------|--------------------|----------|---------|------------|--------|------|--------------|---------------|
|                      |             | ROM(Bytes) | RAM(Bytes) | ROM类型① | 数据闪存(Bytes) |                |              |          | DMA(DMAC/Channels) | DTC/DMACh | 地址空间(Bytes) | 外部总线接口 | 总线形式   | DRAM控制器 | I/O端口 | PLL | 副时钟(32.768kHz) | 内部振荡器(Hz) | 振荡停止检测 | 上电复位(POR) | 低电压检测(LVD) |      |         | 8位      | 16位 | 输入捕捉  | 输出比较 | PWM输出 | 事件计数器   | 三相变频控制 | 三相变频控制  | 看门狗定时器  | 串行接口 | I <sup>2</sup> C总线 | SSU/特殊串口 |         |            |        |      | CAN/Channels | LIN(Channels) |
|                      |             |            |            |        |             |                |              |          |                    |           |             |        |        |         |       |     |                |           |        |           |            |      |         |         |     |       |      |       |         |        |         |         |      |                    |          |         |            |        |      |              |               |
| R32C/160<br>R32C/161 | R5F64600JFP | 128K       | 12K        | F      | 12K         | 48MHz/3.0~5.5V | 20.8@48MHz   | 32x32~64 | 4G                 | 66        | 10位x23      | -      | -      | 11      | 8     | 8   | 13             | 11        | 5      | 1         | 0          | 5    | -       | 3       | 1   | 1     | 1    | 7     | -40~85  |        |         |         |      |                    |          |         |            |        |      |              |               |
|                      | R5F64600KFP |            |            |        |             |                |              |          |                    |           |             |        | -      | 11      | 8     | 8   | 13             | 11        | 5      | 1         | 0          | 5    | -       | 3       | 1   | 1     | 1    | 7     | -40~125 |        |         |         |      |                    |          |         |            |        |      |              |               |
|                      | R5F64600LFP |            |            |        |             |                |              |          |                    |           |             |        | -      | 11      | 8     | 8   | 13             | 11        | 5      | 1         | 0          | 5    | -       | 3       | 1   | 1     | 1    | 7     | -40~105 |        |         |         |      |                    |          |         |            |        |      |              |               |
|                      | R5F64601JFP |            |            |        |             |                |              |          |                    |           |             |        | 256K   | 20K     | 8K    | -   | 11             | 8         | 8      | 13        | 11         | 5    | 1       | 0       | 5   | -     | 3    | 1     | 1       | 1      | 7       | -40~85  |      |                    |          |         |            |        |      |              |               |
|                      | R5F64601KFP |            |            |        |             |                |              |          |                    |           |             |        |        |         |       | -   | 11             | 8         | 8      | 13        | 11         | 5    | 1       | 0       | 5   | -     | 3    | 1     | 1       | 1      | 7       | -40~125 |      |                    |          |         |            |        |      |              |               |
|                      | R5F64601LFP |            |            |        |             |                |              |          |                    |           |             |        |        |         |       | -   | 11             | 8         | 8      | 13        | 11         | 5    | 1       | 0       | 5   | -     | 3    | 1     | 1       | 1      | 7       | -40~105 |      |                    |          |         |            |        |      |              |               |
|                      | R5F6460EJFP | 128K       | 12K        | 8K     | -           |                |              |          |                    |           |             |        |        |         |       | 11  | 8              | 8         | 13     | 11        | 5          | 1    | 0       | 5       | -   | 3     | 1    | 1     | 1       | 7      | -40~85  |         |      |                    |          |         |            |        |      |              |               |
|                      | R5F6460EKFP |            |            |        | -           |                |              |          |                    |           |             |        |        |         |       | 11  | 8              | 8         | 13     | 11        | 5          | 1    | 0       | 5       | -   | 3     | 1    | 1     | 1       | 7      | -40~125 |         |      |                    |          |         |            |        |      |              |               |
|                      | R5F6460ELFP |            |            |        | -           |                |              |          |                    |           |             |        |        |         |       | 11  | 8              | 8         | 13     | 11        | 5          | 1    | 0       | 5       | -   | 3     | 1    | 1     | 1       | 7      | -40~105 |         |      |                    |          |         |            |        |      |              |               |
|                      | R5F6460FJFP |            |            |        | 256K        |                |              |          |                    |           |             |        | 20K    | 8K      | -     | 11  | 8              | 8         | 13     | 11        | 5          | 1    | 0       | 5       | -   | 3     | 1    | 1     | 1       | 7      | -40~85  |         |      |                    |          |         |            |        |      |              |               |
|                      | R5F6460FKFP |            |            |        |             |                |              |          |                    |           |             |        |        |         | -     | 11  | 8              | 8         | 13     | 11        | 5          | 1    | 0       | 5       | -   | 3     | 1    | 1     | 1       | 7      | -40~125 |         |      |                    |          |         |            |        |      |              |               |
|                      | R5F6460FLFP |            |            |        |             |                |              |          |                    |           |             |        |        |         | -     | 11  | 8              | 8         | 13     | 11        | 5          | 1    | 0       | 5       | -   | 3     | 1    | 1     | 1       | 7      | -40~105 |         |      |                    |          |         |            |        |      |              |               |
|                      | R5F64610JFP | 128K       | 12K        | 12K    |             |                |              |          |                    |           |             |        |        |         | -     | 11  | 8              | 8         | 13     | 11        | 5          | 1    | 0       | 5       | -   | 3     | 1    | 1     | 1       | 7      | -40~85  |         |      |                    |          |         |            |        |      |              |               |
|                      | R5F64610KFP |            |            |        |             |                |              |          |                    |           |             |        |        |         | -     | 11  | 8              | 8         | 13     | 11        | 5          | 1    | 0       | 5       | -   | 3     | 1    | 1     | 1       | 7      | -40~125 |         |      |                    |          |         |            |        |      |              |               |
|                      | R5F64610LFP |            |            |        |             |                |              |          |                    |           |             |        |        |         | -     | 11  | 8              | 8         | 13     | 11        | 5          | 1    | 0       | 5       | -   | 3     | 1    | 1     | 1       | 7      | -40~105 |         |      |                    |          |         |            |        |      |              |               |
|                      | R5F64611JFP |            |            |        | 256K        |                |              |          |                    |           |             |        | 20K    | 12K     | -     | 11  | 8              | 8         | 13     | 11        | 5          | 1    | 0       | 5       | -   | 3     | 1    | 1     | 1       | 7      | -40~85  |         |      |                    |          |         |            |        |      |              |               |
|                      | R5F64611KFP |            |            |        |             |                |              |          |                    |           |             |        |        |         | -     | 11  | 8              | 8         | 13     | 11        | 5          | 1    | 0       | 5       | -   | 3     | 1    | 1     | 1       | 7      | -40~125 |         |      |                    |          |         |            |        |      |              |               |
|                      | R5F64611LFP |            |            |        |             |                |              |          |                    |           |             |        |        |         | -     | 11  | 8              | 8         | 13     | 11        | 5          | 1    | 0       | 5       | -   | 3     | 1    | 1     | 1       | 7      | -40~105 |         |      |                    |          |         |            |        |      |              |               |
| R5F6461EJFP          | 128K        | 12K        | 8K         | -      |             | 11             | 8            | 8        | 13                 | 11        | 5           | 1      |        |         | 0     | 5   | -              | 3         | 1      | 1         | 1          | 7    | -40~85  |         |     |       |      |       |         |        |         |         |      |                    |          |         |            |        |      |              |               |
| R5F6461EKFP          |             |            |            | -      |             | 11             | 8            | 8        | 13                 | 11        | 5           | 1      |        |         | 0     | 5   | -              | 3         | 1      | 1         | 1          | 7    | -40~125 |         |     |       |      |       |         |        |         |         |      |                    |          |         |            |        |      |              |               |
| R5F6461ELFP          |             |            |            | -      |             | 11             | 8            | 8        | 13                 | 11        | 5           | 1      |        |         | 0     | 5   | -              | 3         | 1      | 1         | 1          | 7    | -40~105 |         |     |       |      |       |         |        |         |         |      |                    |          |         |            |        |      |              |               |
| R5F6461FJFP          |             |            |            | 256K   | 20K         | 8K             | -            | 11       | 8                  | 8         | 13          | 11     | 5      | 1       | 0     | 5   | -              | 3         | 1      | 1         | 1          | 7    | -40~85  |         |     |       |      |       |         |        |         |         |      |                    |          |         |            |        |      |              |               |
| R5F6461FKFP          |             |            |            |        |             |                | -            | 11       | 8                  | 8         | 13          | 11     | 5      | 1       | 0     | 5   | -              | 3         | 1      | 1         | 1          | 7    | -40~125 |         |     |       |      |       |         |        |         |         |      |                    |          |         |            |        |      |              |               |
| R5F6461FLFP          |             |            |            |        |             |                | -            | 11       | 8                  | 8         | 13          | 11     | 5      | 1       | 0     | 5   | -              | 3         | 1      | 1         | 1          | 7    | -40~105 |         |     |       |      |       |         |        |         |         |      |                    |          |         |            |        |      |              |               |
| R5F64514JFD          | 768K        | 48K        | F          |        |             |                | 16K          | -        | 11                 | 32        | 32          | 37     | 11     | 5       | 1     | 0   | 5              | -         | 3      | 3         | 2          | 8    | 14      | -40~85  |     |       |      |       |         |        |         |         |      |                    |          |         |            |        |      |              |               |
| R5F64514KFD          |             |            |            |        |             |                |              | -        | 11                 | 32        | 32          | 37     | 11     | 5       | 1     | 0   | 5              | -         | 3      | 3         | 2          | 8    | 14      | -40~125 |     |       |      |       |         |        |         |         |      |                    |          |         |            |        |      |              |               |
| R5F64514LFD          |             |            |            |        |             |                |              | -        | 11                 | 32        | 32          | 37     | 11     | 5       | 1     | 0   | 5              | -         | 3      | 3         | 2          | 8    | 14      | -40~105 |     |       |      |       |         |        |         |         |      |                    |          |         |            |        |      |              |               |
| R5F64515JFD          |             |            |            | 1024K  | 48K         | 16K            |              | -        | 11                 | 32        | 32          | 37     | 11     | 5       | 1     | 0   | 5              | -         | 3      | 3         | 2          | 8    | 14      | -40~85  |     |       |      |       |         |        |         |         |      |                    |          |         |            |        |      |              |               |
| R5F64515KFD          |             |            |            |        |             |                |              | -        | 11                 | 32        | 32          | 37     | 11     | 5       | 1     | 0   | 5              | -         | 3      | 3         | 2          | 8    | 14      | -40~125 |     |       |      |       |         |        |         |         |      |                    |          |         |            |        |      |              |               |
| R5F64515LFD          |             |            |            |        |             |                |              | -        | 11                 | 32        | 32          | 37     | 11     | 5       | 1     | 0   | 5              | -         | 3      | 3         | 2          | 8    | 14      | -40~105 |     |       |      |       |         |        |         |         |      |                    |          |         |            |        |      |              |               |
| R5F6451MJFD          |             | 768K       | 48K        |        |             |                | 8K           | -        | 11                 | 32        | 32          | 37     | 11     | 5       | 1     | 0   | 5              | -         | 3      | 3         | 2          | 8    | 14      | -40~85  |     |       |      |       |         |        |         |         |      |                    |          |         |            |        |      |              |               |
| R5F6451MKFD          |             |            |            |        |             |                |              | -        | 11                 | 32        | 32          | 37     | 11     | 5       | 1     | 0   | 5              | -         | 3      | 3         | 2          | 8    | 14      | -40~125 |     |       |      |       |         |        |         |         |      |                    |          |         |            |        |      |              |               |
| R5F6451MLFD          |             |            |            |        |             |                |              | -        | 11                 | 32        | 32          | 37     | 11     | 5       | 1     | 0   | 5              | -         | 3      | 3         | 2          | 8    | 14      | -40~105 |     |       |      |       |         |        |         |         |      |                    |          |         |            |        |      |              |               |
| R5F6451NJFD          |             |            |            | 1024K  | 48K         | 8K             |              | -        | 11                 | 32        | 32          | 37     | 11     | 5       | 1     | 0   | 5              | -         | 3      | 3         | 2          | 8    | 14      | -40~85  |     |       |      |       |         |        |         |         |      |                    |          |         |            |        |      |              |               |
| R5F6451NKFD          |             |            |            |        |             |                |              | -        | 11                 | 32        | 32          | 37     | 11     | 5       | 1     | 0   | 5              | -         | 3      | 3         | 2          | 8    | 14      | -40~125 |     |       |      |       |         |        |         |         |      |                    |          |         |            |        |      |              |               |
| R5F6451NLFD          |             |            |            |        |             |                |              | -        | 11                 | 32        | 32          | 37     | 11     | 5       | 1     | 0   | 5              | -         | 3      | 3         | 2          | 8    | 14      | -40~105 |     |       |      |       |         |        |         |         |      |                    |          |         |            |        |      |              |               |
| R5F64524JFD          |             | 768K       | 48K        |        |             |                | 16K          | -        | 11                 | 32        | 32          | 37     | 11     | 5       | 1     | 0   | 5              | -         | 3      | 3         | 2          | 8    | 14      | -40~85  |     |       |      |       |         |        |         |         |      |                    |          |         |            |        |      |              |               |
| R5F64524KFD          |             |            |            |        |             |                |              | -        | 11                 | 32        | 32          | 37     | 11     | 5       | 1     | 0   | 5              | -         | 3      | 3         | 3          | 8    | 14      | -40~125 |     |       |      |       |         |        |         |         |      |                    |          |         |            |        |      |              |               |
| R5F64524LFD          |             |            |            |        |             |                |              | -        | 11                 | 32        | 32          | 37     | 11     | 5       | 1     | 0   | 5              | -         | 3      | 3         | 3          | 8    | 14      | -40~105 |     |       |      |       |         |        |         |         |      |                    |          |         |            |        |      |              |               |
| R5F64525JFD          |             |            |            | 1024K  | 48K         | 16K            |              | -        | 11                 | 32        | 32          | 37     | 11     | 5       | 1     | 0   | 5              | -         | 3      | 3         | 3          | 8    | 14      | -40~85  |     |       |      |       |         |        |         |         |      |                    |          |         |            |        |      |              |               |
| R5F64525KFD          |             |            |            |        |             |                |              | -        | 11                 | 32        | 32          | 37     | 11     | 5       | 1     | 0   | 5              | -         | 3      | 3         | 3          | 8    | 14      | -40~125 |     |       |      |       |         |        |         |         |      |                    |          |         |            |        |      |              |               |
| R5F64525LFD          |             |            |            |        |             |                |              | -        | 11                 | 32        | 32          | 37     | 11     | 5       | 1     | 0   | 5              | -         | 3      | 3         | 3          | 8    | 14      | -40~105 |     |       |      |       |         |        |         |         |      |                    |          |         |            |        |      |              |               |

M16族R32C/100系列

| 群  | 型号          | 存储器        |            |        |                | 最高工作频率/工作电压  | 最小指令执行时间(ns) | 乘算器 | DMA       |                 | 外部总线扩展      |      |        | 时钟    |     |                | 电压检测      |        | AD转换 | DA转换    | 定时器位数     |            | 定时器功能 |     |      |      |       | 串行接口②   |          |         |        |          | 工作温度范围(°C) | 封装(mm) | 应用领域 |
|--|-------------|------------|------------|--------|----------------|--------------|--------------|-----|-----------|-----------------|-------------|------|--------|-------|-----|----------------|-----------|--------|------|---------|-----------|------------|-------|-----|------|------|-------|---------|----------|---------|--------|----------|------------|--------|------|
|  |             | ROM(Bytes) | RAM(Bytes) | ROM类型① | 数据闪存(Bytes)    |              |              |     | DTC/DMACh | DMACh(Channels) | 地址空间(Bytes) | 总线形式 | 外部总线接口 | I/O接口 | PLL | 副时钟(32.768kHz) | 内部振荡器(Hz) | 振荡停止检测 |      |         | 上电复位(POR) | 低电压检测(LVD) | 8位    | 16位 | 输入捕捉 | 输出比较 | PWM输出 | 事件计数器   | 二相编码输入   | 三相变频控制  | 看门狗定时器 | 时钟同步串行接口 |            |        |      |
| R32C/151<br>R32C/152<br>R32C/153<br>R32C/156<br>R32C/157 | R5F6452MJFD | 768K       | 48K        | 8K     | 64MHz/3.0-5.5V | 15.625@64MHz | 32x32→64     | 4G  | 122       | 10位x34          | 8位x2        | -    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 3    | 8    | 14    | -40-85  | LQFP-144 | 汽车、工业设备 |        |          |            |        |      |
|  | R5F6452MKFD |            |            |        |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 3    | 8    | 14    | -40-125 |          |         |        |          |            |        |      |
|  | R5F6452MLFD |            |            |        |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 3    | 8    | 14    | -40-105 |          |         |        |          |            |        |      |
|  | R5F6452NJFD | 4          | 0          | 8K     |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 3    | 8    | 14    | -40-85  |          |         |        |          |            |        |      |
|  | R5F6452NKFD | 4          | 0          | 8K     |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 3    | 8    | 14    | -40-125 |          |         |        |          |            |        |      |
|  | R5F6452NLFD | 4          | 0          | 8K     |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 3    | 8    | 14    | -40-105 |          |         |        |          |            |        |      |
|  | R5F64534JFD | 4          | 0          | 16K    |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 4    | 8    | 14    | -40-85  |          |         |        |          |            |        |      |
|  | R5F64534KFD | 4          | 0          | 16K    |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 4    | 8    | 14    | -40-125 |          |         |        |          |            |        |      |
|  | R5F64534LFD | 4          | 0          | 16K    |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 4    | 8    | 14    | -40-105 |          |         |        |          |            |        |      |
|  | R5F64535JFD | 4          | 0          | 16K    |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 4    | 8    | 14    | -40-85  |          |         |        |          |            |        |      |
|  | R5F64535KFD | 4          | 0          | 16K    |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 4    | 8    | 14    | -40-125 |          |         |        |          |            |        |      |
|  | R5F64535LFD | 4          | 0          | 16K    |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 4    | 8    | 14    | -40-105 |          |         |        |          |            |        |      |
|  | R5F6453MJFD | 4          | 0          | 8K     |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 4    | 8    | 14    | -40-85  |          |         |        |          |            |        |      |
|  | R5F6453MKFD | 4          | 0          | 8K     |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 4    | 8    | 14    | -40-125 |          |         |        |          |            |        |      |
|  | R5F6453MLFD | 4          | 0          | 8K     |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 4    | 8    | 14    | -40-105 |          |         |        |          |            |        |      |
|  | R5F6453NJFD | 4          | 0          | 8K     |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 4    | 8    | 14    | -40-85  |          |         |        |          |            |        |      |
|  | R5F6453NKFD | 4          | 0          | 8K     |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 4    | 8    | 14    | -40-125 |          |         |        |          |            |        |      |
|  | R5F6453NLFD | 4          | 0          | 8K     |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 4    | 8    | 14    | -40-105 |          |         |        |          |            |        |      |
|  | R5F64561JFD | 4          | 0          | 12K    |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 2    | 4    | 14    | -40-85  |          |         |        |          |            |        |      |
|  | R5F64561KFD | 4          | 0          | 12K    |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 2    | 4    | 14    | -40-125 |          |         |        |          |            |        |      |
|  | R5F64561LFD | 4          | 0          | 12K    |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 2    | 4    | 14    | -40-105 |          |         |        |          |            |        |      |
|  | R5F64562JFD | 4          | 0          | 12K    |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 2    | 4    | 14    | -40-85  |          |         |        |          |            |        |      |
|  | R5F64562KFD | 4          | 0          | 12K    |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 2    | 4    | 14    | -40-125 |          |         |        |          |            |        |      |
|  | R5F64562LFD | 4          | 0          | 12K    |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 2    | 4    | 14    | -40-105 |          |         |        |          |            |        |      |
|  | R5F64563JFD | 4          | 0          | 12K    |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 2    | 4    | 14    | -40-85  |          |         |        |          |            |        |      |
|  | R5F64563KFD | 4          | 0          | 12K    |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 2    | 4    | 14    | -40-125 |          |         |        |          |            |        |      |
|  | R5F64563LFD | 4          | 0          | 12K    |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 2    | 4    | 14    | -40-105 |          |         |        |          |            |        |      |
|  | R5F6456FJFD | 4          | 0          | 8K     |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 2    | 4    | 14    | -40-85  |          |         |        |          |            |        |      |
|  | R5F6456FKFD | 4          | 0          | 8K     |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 2    | 4    | 14    | -40-125 |          |         |        |          |            |        |      |
|  | R5F6456FLFD | 4          | 0          | 8K     |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 2    | 4    | 14    | -40-105 |          |         |        |          |            |        |      |
|  | R5F6456GJFD | 4          | 0          | 8K     |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 2    | 4    | 14    | -40-85  |          |         |        |          |            |        |      |
|  | R5F6456GKFD | 4          | 0          | 8K     |                |              |              |     |           |                 |             | 0    | 11     | 32    | 32  | 37             | 11        | 5      | 1    | 0       | 5         | -          | 3     | 3   | 2    | 4    | 14    | -40-125 |          |         |        |          |            |        |      |
| R5F6456GLFD  | 4           | 0          | 8K         | 0      | 11             | 32           | 32           | 37  | 11        | 5               | 1           | 0    | 5      | -     | 3   | 3              | 2         | 4      | 14   | -40-105 |           |            |       |     |      |      |       |         |          |         |        |          |            |        |      |
| R5F6456HJFD  | 4           | 0          | 8K         | 0      | 11             | 32           | 32           | 37  | 11        | 5               | 1           | 0    | 5      | -     | 3   | 3              | 2         | 4      | 14   | -40-85  |           |            |       |     |      |      |       |         |          |         |        |          |            |        |      |
| R5F6456HKFD  | 4           | 0          | 8K         | 0      | 11             | 32           | 32           | 37  | 11        | 5               | 1           | 0    | 5      | -     | 3   | 3              | 2         | 4      | 14   | -40-125 |           |            |       |     |      |      |       |         |          |         |        |          |            |        |      |
| R5F6456HLFD  | 4           | 0          | 8K         | 0      | 11             | 32           | 32           | 37  | 11        | 5               | 1           | 0    | 5      | -     | 3   | 3              | 2         | 4      | 14   | -40-105 |           |            |       |     |      |      |       |         |          |         |        |          |            |        |      |
| R5F64571JFD  | 4           | 0          | 12K        | 0      | 11             | 32           | 32           | 37  | 11        | 5               | 1           | 0    | 5      | -     | 3   | 3              | 3         | 4      | 14   | -40-85  |           |            |       |     |      |      |       |         |          |         |        |          |            |        |      |
| R5F64571KFD  | 4           | 0          | 12K        | 0      | 11             | 32           | 32           | 37  | 11        | 5               | 1           | 0    | 5      | -     | 3   | 3              | 3         | 4      | 14   | -40-125 |           |            |       |     |      |      |       |         |          |         |        |          |            |        |      |
| R5F64571LFD  | 4           | 0          | 12K        | 0      | 11             | 32           | 32           | 37  | 11        | 5               | 1           | 0    | 5      | -     | 3   | 3              | 3         | 4      | 14   | -40-105 |           |            |       |     |      |      |       |         |          |         |        |          |            |        |      |

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| 群  | 型号          | 存储器        |            |        |                | 最高工作频率/工作电压  | 最小指令执行时间(ns) | 乘数器 | DMA            |            | 外部总线扩展      |        |      | I/O接口 | 时钟     |     |                | 电压检测   | AD转换 | DA转换    | 定时器位数     |        | 定时器功能     |            |    |     |      | 串行接口② |       |       |        |        | 工作温度范围(°C) | 封装(mm) | 应用领域 |         |          |                    |
|--|-------------|------------|------------|--------|----------------|--------------|--------------|-----|----------------|------------|-------------|--------|------|-------|--------|-----|----------------|--------|------|---------|-----------|--------|-----------|------------|----|-----|------|-------|-------|-------|--------|--------|------------|--------|------|---------|----------|--------------------|
|  |             | ROM(bytes) | RAM(bytes) | ROM类型① | 数据闪存(bytes)    |              |              |     | DMAC(Channels) | DTC/DMACII | 地址空间(bytes) | 外部总线接口 | 总线形式 |       | DMA控制器 | PLL | 副时钟(32.768kHz) |        |      |         | 内部振荡器(Hz) | 振荡停止检测 | 上电复位(POR) | 低电压检测(LVD) | 8位 | 16位 | 输入捕捉 | 输出比较  | PWM输出 | 事件计数器 | 二相编码输入 | 三相变频控制 |            |        |      | 看门狗定时器  | 时钟同步串行接口 | I <sup>2</sup> C总线 |
| R32C/151<br>R32C/152<br>R32C/153<br>R32C/156<br>R32C/157 | R5F64572JFD | 384K       | 24K        | 12K    | 64MHz/3.0-5.5V | 15.625@64MHz | 32x32→64     | 4   | 0              | -          | -           | -      | 122  | 0     | 0      | 0   | 0              | 10位x34 | 8位x2 | -       | 11        | 32     | 32        | 37         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 3      | 3          | 4      | 14   | -40~85  | LQFP-144 | 汽车、<br>工业设备        |
|  | R5F64572KFD |            |            |        |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 32     | 32        | 37         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 3      | 3          | 4      | 14   | -40~125 |          |                    |
|  | R5F64572LFD |            |            |        |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 32     | 32        | 37         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 3      | 3          | 4      | 14   | -40~105 |          |                    |
|  | R5F64573JFD | 512K       | 32K        | 12K    |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 32     | 32        | 37         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 3      | 3          | 4      | 14   | -40~85  |          |                    |
|  | R5F64573KFD |            |            |        |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 32     | 32        | 37         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 3      | 3          | 4      | 14   | -40~125 |          |                    |
|  | R5F64573LFD |            |            |        |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 32     | 32        | 37         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 3      | 3          | 4      | 14   | -40~105 |          |                    |
|  | R5F6457FJFD | 256K       | 20K        | 8K     |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 32     | 32        | 37         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 3      | 3          | 4      | 14   | -40~85  |          |                    |
|  | R5F6457FKFD |            |            |        |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 32     | 32        | 37         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 3      | 3          | 4      | 14   | -40~125 |          |                    |
|  | R5F6457FLFD |            |            |        |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 32     | 32        | 37         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 3      | 3          | 4      | 14   | -40~105 |          |                    |
|  | R5F6457GJFD | 384K       | 24K        | 8K     |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 32     | 32        | 37         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 3      | 3          | 4      | 14   | -40~85  |          |                    |
|  | R5F6457GKFD |            |            |        |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 32     | 32        | 37         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 3      | 3          | 4      | 14   | -40~125 |          |                    |
|  | R5F6457GLFD |            |            |        |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 32     | 32        | 37         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 3      | 3          | 4      | 14   | -40~105 |          |                    |
|  | R5F6457HJFD | 512K       | 32K        | 8K     |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 32     | 32        | 37         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 3      | 3          | 4      | 14   | -40~85  |          |                    |
| R5F6457HKFD  | -           |            |            |        | 11             | 32           | 32           | 37  | 11             | 5          | 1           | 0      | 5    | -     | 3      | 3   | 3              | 4      | 14   | -40~125 |           |        |           |            |    |     |      |       |       |       |        |        |            |        |      |         |          |                    |
| R5F6457HLFD  | -           |            |            |        | 11             | 32           | 32           | 37  | 11             | 5          | 1           | 0      | 5    | -     | 3      | 3   | 3              | 4      | 14   | -40~105 |           |        |           |            |    |     |      |       |       |       |        |        |            |        |      |         |          |                    |
| R32C/120<br>R32C/121                                     | R5F64200JFB | 128K       | 12K        | 12K    | 64MHz/3.0-5.5V | 15.625@64MHz | 32x32→64     | 4   | 0              | -          | -           | -      | 86   | 0     | 0      | 0   | 0              | 10位x26 | 8位x2 | -       | 11        | 16     | 16        | 21         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 1      | 1          | 2      | 11   | -40~85  | LQFP-100 | 汽车、<br>工业设备        |
|  | R5F64200KFB |            |            |        |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 16     | 16        | 21         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 1      | 1          | 2      | 11   | -40~125 |          |                    |
|  | R5F64200LFB |            |            |        |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 16     | 16        | 21         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 1      | 1          | 2      | 11   | -40~105 |          |                    |
|  | R5F64201JFB | 256K       | 20K        | 12K    |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 16     | 16        | 21         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 1      | 1          | 2      | 11   | -40~85  |          |                    |
|  | R5F64201KFB |            |            |        |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 16     | 16        | 21         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 1      | 1          | 2      | 11   | -40~125 |          |                    |
|  | R5F64201LFB |            |            |        |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 16     | 16        | 21         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 1      | 1          | 2      | 11   | -40~105 |          |                    |
|  | R5F6420EJFB | 128K       | 12K        | 8K     |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 16     | 16        | 21         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 1      | 1          | 2      | 11   | -40~85  |          |                    |
|  | R5F6420EKFB |            |            |        |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 16     | 16        | 21         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 1      | 1          | 2      | 11   | -40~125 |          |                    |
|  | R5F6420ELFB |            |            |        |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 16     | 16        | 21         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 1      | 1          | 2      | 11   | -40~105 |          |                    |
|  | R5F6420FJFB | 256K       | 20K        | 8K     |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 16     | 16        | 21         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 1      | 1          | 2      | 11   | -40~85  |          |                    |
|  | R5F6420FKFB |            |            |        |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 16     | 16        | 21         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 1      | 1          | 2      | 11   | -40~125 |          |                    |
|  | R5F6420FLFB |            |            |        |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 16     | 16        | 21         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 1      | 1          | 2      | 11   | -40~105 |          |                    |
|  | R5F64210JFB | 128K       | 12K        | 12K    |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 16     | 16        | 21         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 1      | 2          | 2      | 11   | -40~85  |          |                    |
|  | R5F64210KFB |            |            |        |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 16     | 16        | 21         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 1      | 2          | 2      | 11   | -40~125 |          |                    |
|  | R5F64210LFB |            |            |        |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 16     | 16        | 21         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 1      | 2          | 2      | 11   | -40~105 |          |                    |
|  | R5F64211JFB | 256K       | 20K        | 12K    |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 16     | 16        | 21         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 1      | 2          | 2      | 11   | -40~85  |          |                    |
|  | R5F64211KFB |            |            |        |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 16     | 16        | 21         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 1      | 2          | 2      | 11   | -40~125 |          |                    |
|  | R5F64211LFB |            |            |        |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 16     | 16        | 21         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 1      | 2          | 2      | 11   | -40~105 |          |                    |
|  | R5F64212JFB | 384K       | 24K        | 12K    |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 16     | 16        | 21         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 1      | 2          | 2      | 11   | -40~85  |          |                    |
|  | R5F64212KFB |            |            |        |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 16     | 16        | 21         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 1      | 2          | 2      | 11   | -40~125 |          |                    |
|  | R5F64212LFB |            |            |        |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 16     | 16        | 21         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 1      | 2          | 2      | 11   | -40~105 |          |                    |
|  | R5F64213JFB | 512K       | 32K        | 12K    |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 16     | 16        | 21         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 1      | 2          | 2      | 11   | -40~85  |          |                    |
|  | R5F64213KFB |            |            |        |                |              |              |     |                |            |             |        |      |       |        |     |                |        |      | -       | 11        | 16     | 16        | 21         | 11 | 5   | 1    | 0     | 5     | -     | 3      | 1      | 2          | 2      | 11   | -40~125 |          |                    |
| R5F64213LFB  | -           |            |            |        | 11             | 16           | 16           | 21  | 11             | 5          | 1           | 0      | 5    | -     | 3      | 1   | 2              | 2      | 11   | -40~105 |           |        |           |            |    |     |      |       |       |       |        |        |            |        |      |         |          |                    |

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| 群                    | 型号          | 存储器        |            |        |                | 最高工作频率/工作电压    | 最小指令执行时间(ns) | 乘数器      | DMA            |           |             | 外部总线扩展 |       |     |                |           | 时钟        |            |    |     |      | AD转换 | D/A转换 | 定时器位数 |       |       | 定时器功能  |        |               |        |            |   | 串行接口②   |         |    |    |                |              | 外部中断引脚数  | 工作温度范围(°C) | 封装(mm) | 应用领域 |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
|----------------------|-------------|------------|------------|--------|----------------|----------------|--------------|----------|----------------|-----------|-------------|--------|-------|-----|----------------|-----------|-----------|------------|----|-----|------|------|-------|-------|-------|-------|--------|--------|---------------|--------|------------|---|---|---------|----|----|----------------|--------------|----------|------------|--------|------|---|---|---|---|---|----|----|----|----|--------|---------|--------|------|--------|---------|---|---|---|---|----|--------|----------|---------|-------------|
|                      |             | ROM(Bytes) | RAM(Bytes) | ROM类型① | 数据闪存(Bytes)    |                |              |          | DMAC(Channels) | DTC/DMACI | 地址空间(Bytes) |        | I/O端口 | PLL | 副时钟(32.768kHz) | 内部振荡器(Hz) | 电源复位(POR) | 低电压检测(LVD) | 8位 | 16位 | 输入捕捉 |      |       | 输出比较  | PWM输出 | 事件计数器 | 三相变频控制 | 看门狗定时器 | 串行接口(时钟同步/异步) | I2C总线  | SSU/特殊串行接口 | CAN(Channel)  | LIN(Channel)  | 16      | 19 | 24 | 21             | 11           |          |            |        |      | 5 | 1 | 0 | 5 | 3 | 1  | 2  | 2  | 11 |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
|                      |             |            |            |        |                |                |              |          |                |           | 地址空间        | 总线形式   |       |     |                |           |           |            |    |     |      |      |       |       |       |       |        |        |               |        |            |   |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    | 外部总线接口 | DRAM控制器 | 外部总线接口 | 总线形式 | 外部总线接口 | DRAM控制器 |   |   |   |   |    |        |          |         |             |
| R32C/120<br>R32C/121 | R5F6421EJFB | 128K       | 12K        | F      | 8K             | 64MHz/3.0-5.5V | 15.625@64MHz | 32x32~64 | 4G             | 86        | 0           | 0      | 0     | 0   | -              | 0         | 8位        | 16         | 16 | 21  | 11   | 5    | 1     | 0     | 5     | -     | 3      | 1      | 2             | 2      | 11         | -40~85  | LQFP-100  | 汽车、工业设备 |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
|                      | R5F6421EKFB |            |            |        |                |                |              |          |                |           |             |        |       |     |                |           |           |            |    |     |      |      |       |       |       |       |        |        |               |        |            |   |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
|                      | R5F6421ELFB |            |            |        |                |                |              |          |                |           |             |        |       |     |                |           |           |            |    |     |      |      |       |       |       |       |        |        |               |        |            |   |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
|                      | R5F6421FJFB |            |            |        |                |                |              |          |                |           |             |        |       |     |                |           |           |            |    |     |      |      |       |       |       |       |        |        |               |        |            |   |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
|                      | R5F6421FKFB |            |            |        |                |                |              |          |                |           |             |        |       |     |                |           |           |            |    |     |      |      |       |       |       |       |        |        |               |        |            |   |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
|                      | R5F6421FLFB | 256K       | 20K        |        |                |                |              |          |                |           |             |        |       |     |                |           |           |            |    |     |      |      |       |       |       |       |        |        |               |        |            |   |   |         | F  | 8K | 64MHz/3.0-5.5V | 15.625@64MHz | 32x32~64 | 4G         | 86     | 0    | 0 | 0 | 0 | - | 0 | 8位 | 16 | 16 | 21 | 11     | 5       | 1      | 0    | 5      | -       | 3 | 1 | 2 | 2 | 11 | -40~85 | LQFP-100 | 汽车、工业设备 |             |
|                      |             |            |            |        |                |                |              |          |                |           |             |        |       |     |                |           |           |            |    |     |      |      |       |       |       |       |        |        |               |        |            |   |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         | R5F6421GJFB |
|                      |             |            |            |        |                |                |              |          |                |           |             |        |       |     |                |           |           |            |    |     |      |      |       |       |       |       |        |        |               |        |            |   |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         | R5F6421GKFB |
|                      |             |            |            |        |                |                |              |          |                |           |             |        |       |     |                |           |           |            |    |     |      |      |       |       |       |       |        |        |               |        |            |   |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         | R5F6421GLFB |
|                      |             |            |            |        |                |                |              |          |                |           |             |        |       |     |                |           |           |            |    |     |      |      |       |       |       |       |        |        |               |        |            |   |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         | R5F6421HJFB |
| R5F6421HKFB          | 512K        | 32K        | F          | 8K     | 64MHz/3.0-5.5V | 15.625@64MHz   | 32x32~64     | 4G       | 86             | 0         | 0           | 0      | -     | 0   | 8位             | 16        | 16        | 21         | 11 | 5   | 1    | 0    | 5     | -     | 3     | 1     | 2      | 2      | 11            | -40~85 | LQFP-100   | 汽车、工业设备   |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
| R5F6421HLFB          |             |            |            |        |                |                |              |          |                |           |             |        |       |     |                |           |           |            |    |     |      |      |       |       |       |       |        |        |               |        |            |   |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
| R5F64165DFB          | 384K        | 40K        | F          | 8K     | 50MHz/3.0-5.5V | 20@50MHz       | 32x32~64     | 64M      | 86             | 0         | 0           | 0      | -     | 0   | 8位             | 16        | 16        | 19         | 24 | 11  | 5    | 1    | 0     | 9     | 1     | 8     | 7      | -      | 11            | -40~85 | LQFP-100   | 车载音响、音响、相机(仅R32C/116)、电视机(仅R32C/116)、家电(仅R32C/116)、打印机、办公/工业设备、通信/便携器件(仅R32C/116) |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
| R5F64166DFB          |             |            |            |        |                |                |              |          |                |           |             |        |       |     |                |           |           |            |    |     |      |      |       |       |       |       |        |        |               |        |            |   |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
| R5F64166DFD          | 512K        | 40K        | F          | 8K     | 50MHz/3.0-5.5V | 20@50MHz       | 32x32~64     | 64M      | 122            | 0         | 0           | 0      | -     | 0   | 8位             | 16        | 16        | 19         | 24 | 11  | 5    | 1    | 0     | 9     | 1     | 8     | 7      | -      | 14            | -40~85 | LQFP-144   | 车载音响、音响、相机(仅R32C/116)、电视机(仅R32C/116)、家电(仅R32C/116)、打印机、办公/工业设备、通信/便携器件(仅R32C/116) |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
| R5F64166PFB          |             |            |            |        |                |                |              |          |                |           |             |        |       |     |                |           |           |            |    |     |      |      |       |       |       |       |        |        |               |        |            |   |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
| R5F64166PFD          | 512K        | 40K        | F          | 8K     | 50MHz/3.0-5.5V | 20@50MHz       | 32x32~64     | 64M      | 122            | 0         | 0           | 0      | -     | 0   | 8位             | 16        | 16        | 19         | 24 | 11  | 5    | 1    | 0     | 9     | 1     | 8     | 7      | -      | 14            | -40~85 | LQFP-144   | 车载音响、音响、相机(仅R32C/116)、电视机(仅R32C/116)、家电(仅R32C/116)、打印机、办公/工业设备、通信/便携器件(仅R32C/116) |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
| R5F64167DFB          |             |            |            |        |                |                |              |          |                |           |             |        |       |     |                |           |           |            |    |     |      |      |       |       |       |       |        |        |               |        |            |   |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
| R5F64167DFD          | 640K        | 48K        | F          | 8K     | 50MHz/3.0-5.5V | 20@50MHz       | 32x32~64     | 64M      | 122            | 0         | 0           | 0      | -     | 0   | 8位             | 16        | 16        | 19         | 24 | 11  | 5    | 1    | 0     | 9     | 1     | 8     | 7      | -      | 14            | -40~85 | LQFP-144   | 车载音响、音响、相机(仅R32C/116)、电视机(仅R32C/116)、家电(仅R32C/116)、打印机、办公/工业设备、通信/便携器件(仅R32C/116) |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
| R5F64167PFD          |             |            |            |        |                |                |              |          |                |           |             |        |       |     |                |           |           |            |    |     |      |      |       |       |       |       |        |        |               |        |            |   |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
| R5F64168DFB          | 768K        | 63K        | F          | 8K     | 50MHz/3.0-5.5V | 20@50MHz       | 32x32~64     | 64M      | 86             | 0         | 0           | 0      | -     | 0   | 8位             | 16        | 16        | 19         | 24 | 11  | 5    | 1    | 0     | 9     | 1     | 8     | 7      | -      | 11            | -40~85 | LQFP-100   | 车载音响、音响、相机(仅R32C/116)、电视机(仅R32C/116)、家电(仅R32C/116)、打印机、办公/工业设备、通信/便携器件(仅R32C/116) |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
| R5F64168DFD          |             |            |            |        |                |                |              |          |                |           |             |        |       |     |                |           |           |            |    |     |      |      |       |       |       |       |        |        |               |        |            |   |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
| R5F64168PFB          | 768K        | 63K        | F          | 8K     | 50MHz/3.0-5.5V | 20@50MHz       | 32x32~64     | 64M      | 122            | 0         | 0           | 0      | -     | 0   | 8位             | 16        | 16        | 19         | 24 | 11  | 5    | 1    | 0     | 9     | 1     | 8     | 7      | -      | 14            | -40~85 | LQFP-144   | 车载音响、音响、相机(仅R32C/116)、电视机(仅R32C/116)、家电(仅R32C/116)、打印机、办公/工业设备、通信/便携器件(仅R32C/116) |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
| R5F64168PFD          |             |            |            |        |                |                |              |          |                |           |             |        |       |     |                |           |           |            |    |     |      |      |       |       |       |       |        |        |               |        |            |   |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
| R5F64169DFB          | 1024K       | 63K        | F          | 8K     | 50MHz/3.0-5.5V | 20@50MHz       | 32x32~64     | 64M      | 86             | 0         | 0           | 0      | -     | 0   | 8位             | 16        | 16        | 19         | 24 | 11  | 5    | 1    | 0     | 9     | 1     | 8     | 7      | -      | 11            | -40~85 | LQFP-100   | 车载音响、音响、相机(仅R32C/116)、电视机(仅R32C/116)、家电(仅R32C/116)、打印机、办公/工业设备、通信/便携器件(仅R32C/116) |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
| R5F64169DFD          |             |            |            |        |                |                |              |          |                |           |             |        |       |     |                |           |           |            |    |     |      |      |       |       |       |       |        |        |               |        |            |   |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
| R5F64169PFB          | 1024K       | 63K        | F          | 8K     | 50MHz/3.0-5.5V | 20@50MHz       | 32x32~64     | 64M      | 122            | 0         | 0           | 0      | -     | 0   | 8位             | 16        | 16        | 19         | 24 | 11  | 5    | 1    | 0     | 9     | 1     | 8     | 7      | -      | 14            | -40~85 | LQFP-144   | 车载音响、音响、相机(仅R32C/116)、电视机(仅R32C/116)、家电(仅R32C/116)、打印机、办公/工业设备、通信/便携器件(仅R32C/116) |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
| R5F64169PFD          |             |            |            |        |                |                |              |          |                |           |             |        |       |     |                |           |           |            |    |     |      |      |       |       |       |       |        |        |               |        |            |   |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
| R5F64175DFB          | 384K        | 40K        | F          | 8K     | 50MHz/3.0-5.5V | 20@50MHz       | 32x32~64     | 64M      | 86             | 0         | 0           | 0      | -     | 0   | 8位             | 16        | 16        | 19         | 24 | 11  | 5    | 1    | 0     | 9     | 1     | 8     | 7      | 1      | -             | 11     | -40~85     | LQFP-100  | 车载音响、音响、相机(仅R32C/116)、电视机(仅R32C/116)、家电(仅R32C/116)、打印机、办公/工业设备、通信/便携器件(仅R32C/116) |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
| R5F64175DFD          |             |            |            |        |                |                |              |          |                |           |             |        |       |     |                |           |           |            |    |     |      |      |       |       |       |       |        |        |               |        |            |   |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
| R5F64175PFB          | 384K        | 40K        | F          | 8K     | 50MHz/3.0-5.5V | 20@50MHz       | 32x32~64     | 64M      | 122            | 0         | 0           | 0      | -     | 0   | 8位             | 16        | 16        | 19         | 24 | 11  | 5    | 1    | 0     | 9     | 1     | 8     | 7      | 1      | -             | 14     | -40~85     | LQFP-144  | 车载音响、音响、相机(仅R32C/116)、电视机(仅R32C/116)、家电(仅R32C/116)、打印机、办公/工业设备、通信/便携器件(仅R32C/116) |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
| R5F64175PFD          |             |            |            |        |                |                |              |          |                |           |             |        |       |     |                |           |           |            |    |     |      |      |       |       |       |       |        |        |               |        |            |   |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
| R5F64176DFB          | 512K        | 40K        | F          | 8K     | 50MHz/3.0-5.5V | 20@50MHz       | 32x32~64     | 64M      | 122            | 0         | 0           | 0      | -     | 0   | 8位             | 16        | 16        | 19         | 24 | 11  | 5    | 1    | 0     | 9     | 1     | 8     | 7      | 1      | -             | 11     | -40~85     | LQFP-100  | 车载音响、音响、相机(仅R32C/116)、电视机(仅R32C/116)、家电(仅R32C/116)、打印机、办公/工业设备、通信/便携器件(仅R32C/116) |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
| R5F64176DFD          |             |            |            |        |                |                |              |          |                |           |             |        |       |     |                |           |           |            |    |     |      |      |       |       |       |       |        |        |               |        |            |   |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
| R5F64176PFB          | 512K        | 40K        | F          | 8K     | 50MHz/3.0-5.5V | 20@50MHz       | 32x32~64     | 64M      | 86             | 0         | 0           | 0      | -     | 0   | 8位             | 16        | 16        | 19         | 24 | 11  | 5    | 1    | 0     | 9     | 1     | 8     | 7      | 1      | -             | 11     | -40~85     | LQFP-100  | 车载音响、音响、相机(仅R32C/116)、电视机(仅R32C/116)、家电(仅R32C/116)、打印机、办公/工业设备、通信/便携器件(仅R32C/116) |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
| R5F64176PFD          |             |            |            |        |                |                |              |          |                |           |             |        |       |     |                |           |           |            |    |     |      |      |       |       |       |       |        |        |               |        |            |   |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
| R5F64177DFB          | 640K        | 48K        | F          | 8K     | 50MHz/3.0-5.5V | 20@50MHz       | 32x32~64     | 64M      | 86             | 0         | 0           | 0      | -     | 0   | 8位             | 16        | 16        | 19         | 24 | 11  | 5    | 1    | 0     | 9     | 1     | 8     | 7      | 1      | -             | 11     | -40~85     | LQFP-100  | 车载音响、音响、相机(仅R32C/116)、电视机(仅R32C/116)、家电(仅R32C/116)、打印机、办公/工业设备、通信/便携器件(仅R32C/116) |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
| R5F64177DFD          |             |            |            |        |                |                |              |          |                |           |             |        |       |     |                |           |           |            |    |     |      |      |       |       |       |       |        |        |               |        |            |   |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
| R5F64177PFB          | 640K        | 48K        | F          | 8K     | 50MHz/3.0-5.5V | 20@50MHz       | 32x32~64     | 64M      | 122            | 0         | 0           | 0      | -     | 0   | 8位             | 16        | 16        | 19         | 24 | 11  | 5    | 1    | 0     | 9     | 1     | 8     | 7      | 1      | -             | 14     | -40~85     | LQFP-144  | 车载音响、音响、相机(仅R32C/116)、电视机(仅R32C/116)、家电(仅R32C/116)、打印机、办公/工业设备、通信/便携器件(仅R32C/116) |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |
| R5F64177PFD          |             |            |            |        |                |                |              |          |                |           |             |        |       |     |                |           |           |            |    |     |      |      |       |       |       |       |        |        |               |        |            |   |   |         |    |    |                |              |          |            |        |      |   |   |   |   |   |    |    |    |    |        |         |        |      |        |         |   |   |   |   |    |        |          |         |             |



**M16C族开发工具**

| 系列       | 群                    | 介绍性工具           | 硬件工具                               |                        |   |                         |   |                             |               |              |      |                 | 编程工具            |   | 软件工具   |   |  |  |                                    |            |
|----------|----------------------|-----------------|------------------------------------|------------------------|---|-------------------------|---|-----------------------------|---------------|--------------|------|-----------------|-----------------|---|--|---|--|--|------------------------------------|------------|
|          |                      | Starter Kit     | On-chip调试器                         |                        |   | 小型仿真器(Compact Emulator) |   | 全功能仿真器(In-circuit Emulator) |               |              |      |                 |                 | 编程器   | IC Socket板   | 编译器   | 集成开发环境   | 实时OS   |                                    |            |
|          |                      |                 | E8                                 | E8a                    | M3A-0665  | 仿真器                     | 转换板   | PC7501                      |               |              | E100 |                 |                 |   |  |   |  |  |                                    |            |
|          |                      |                 |                                    |                        |   |                         |   | 主单元                         | 仿真头           | 转换板          | 主单元  | 仿真头             | 转换板             |   |  |   |  |  |                                    |            |
| M16C/30  | M16C/30P             | ROK33062PS001BE | 仅M30302FAP、M30302FCP、M30302FEP芯片可用 | ○                      | -   | M3062PT3-CPE            | M30800T-PTC +IC61-1004-051 (QFP-100, 0.65mm) M3T-F160-100NRB (QFP-100, 0.65mm) M3T-F160-100NSD (LQFP-100, 0.5mm) M3T-F160-128NRD (LQFP-128, 0.5mm)                                | PC7501                      | M3062 PT2-EPB | -            | -    | -               | -               | -   | Flash Development Toolkit (烧写时需与E8a配套使用) or M3A-0806                 | -   | C Compiler Package for R8C, M16C (R32C/M32C/M16C) Series: (ROC52100XSW05R) (MISRA C可选) | High-performance Embedded Workshop   | M3T-MR30/4                         |            |
| M16C/50  | M16C/5LD<br>M16C/56D | -               | -                                  | ○                      | -   | -                       | -   | -                           | -             | -            | -    | ROE001000 EMU00 | ROE535 M00MCU00 | ROE535M00CFK30 (80-pin 0.5mm-pitch LQFP) ROE535M00CFK40 (64-pin 0.5mm-pitch LQFP) | Flash Development Toolkit  | -   | C Compiler Package for R8C, M16C (R32C/M32C/M16C) Series: (ROC52100XSW05R) (MISRA C可选) | High-performance Embedded Workshop   | M3T-MR30/4                         |            |
| M16C/60  | M16C/62P             | ROK33062PS001BE | ○                                  | ○                      | 仅M30620FCPPFP/GP、M30621FCPPGP、M30622F8PPFP/GP、M30623F8PPGP、M30624FGPPFP/GP、M30625FGPPGP、M30626FHPPFP/GP、M30626FJPPFP/GP、M30627FHPPGP、M30627FJPPGP芯片可用 | M3062PT3-CPE            | M3062PT-80FPB (QFP-80, 0.65mm) M30800T-PTC +IC61-1004-051 (QFP-100, 0.65mm) M3T-F160-100NRB (QFP-100, 0.65mm) M3T-F160-100NSD (LQFP-100, 0.5mm) M3T-F160-128NRD (LQFP-128, 0.5mm) | PC7501                      | M3062 PT2-EPB | -            | -    | -               | -               | -   | Flash Development Toolkit or M3A-0806                                | ROK3100PSZ000BR (PRQP100JB-A (100P6S-A))<br>ROK3100PQZ000BR (PLQP0100KB-A (100P6Q-A)) | -  | C Compiler Package for R8C, M16C (R32C/M32C/M16C) Series: (ROC52100XSW05R) (MISRA C可选) | High-performance Embedded Workshop | M3T-MR30/4 |
|          | M16C/6N4             | -               | 仅M306N4FC、M306N4FG芯片可用             | 仅M306N4FC、M306N4FG芯片可用 | 仅M306N4FCTFP、M306N4FGTTFP芯片可用   | -                       | -   | -                           | -             | -            | -    | -               | -               | -   | -  | -   | C Compiler Package for R8C, M16C (R32C/M32C/M16C) Series: (ROC52100XSW05R) (MISRA C可选) | High-performance Embedded Workshop   | M3T-MR30/4                         |            |
|          | M16C/6N5             | -               | 仅M306N5FC芯片可用                      | 仅M306N5FC芯片可用          | 仅M306N5FCTFP芯片可用  | -                       | -   | -                           | -             | -            | -    | -               | -               | -   | -  | -   | -  | C Compiler Package for R8C, M16C (R32C/M32C/M16C) Series: (ROC52100XSW05R) (MISRA C可选) | High-performance Embedded Workshop | M3T-MR30/4 |
|          | M16C/6NK             | -               | 仅M306NKFH、M306NKFJ芯片可用             | 仅M306NKFH、M306NKFJ芯片可用 | -   | -                       | -   | -                           | PC7501        | M306 NKT-EPB | -    | -               | -               | -   | Flash Development Toolkit (M16C/6N与M16C/6S群烧写时需与E8a配套使用) or M3A-0806 | -   | -  | -  | -                                  | -          |
|          | M16C/6NL             | -               | 仅M306NLFH、M306NLFJ芯片可用             | 仅M306NLFH、M306NLFJ芯片可用 | -   | -                       | -   | -                           | -             | -            | -    | -               | -               | -   | -  | -   | -  | -  | -                                  | -          |
|          | M16C/6NM             | -               | ROK3306NKS001BE                    | 仅M306NMFH、M306NMFJ芯片可用 | 仅M306NMFH、M306NMFJ芯片可用  | -                       | -   | -                           | -             | -            | -    | -               | -               | -   | -  | -   | -  | -  | -                                  | -          |
| M16C/6NN | -                    | -               | 仅M306NNFH、M306NNFJ芯片可用             | 仅M306NNFH、M306NNFJ芯片可用 | -   | -                       | -   | -                           | -             | -            | -    | -               | -               | -   | -  | -   | -  | -  | -                                  |            |

### M16C族开发工具

| 系列       | 群        | 介绍性工具           | 硬件工具                |     |          |                         |        |                             |             |     |                 |                 | 编程工具   |  | 软件工具       |  |                                    |             |                 |   |   |   |                 |                 |  |                           |   |   |   |   |   |
|----------|----------|-----------------|---------------------|-----|----------|-------------------------|--------|-----------------------------|-------------|-----|-----------------|-----------------|--|--|------------|--|------------------------------------|-------------|-----------------|---|---|---|-----------------|-----------------|--|---------------------------|---|---|---|---|---|
|          |          | Starter Kit     | On-chip调试器          |     |          | 小型仿真器(Compact Emulator) |        | 多功能仿真器(In-circuit Emulator) |             |     |                 |                 |  | 编程器  | IC Socket板 | 编译器  | 集成开发环境                             | 实时OS        |                 |   |   |   |                 |                 |  |                           |   |   |   |   |   |
|          |          |                 | E8                  | E8a | M3A-0665 | 仿真器                     | 转换板    | PC7501                      |             |     | E100            |                 |  |  |            |  |                                    |             |                 |   |   |   |                 |                 |  |                           |   |   |   |   |   |
|          |          |                 |                     |     |          |                         |        | 主单元                         | 仿真头         | 转换板 | 主单元             | 仿真头             | 转换板  |  |            |  |                                    |             |                 |   |   |   |                 |                 |  |                           |   |   |   |   |   |
| M16C/60  | M16C/65  | ROK53650ES000BE | 仅M306N5FC芯片可用       | ○   | -        | -                       | -      | -                           | -           | -   | ROE001000 EMU00 | ROE530650 MCU00 | ROE0100TNPFFJ00 (100-pin 0.65mm-pitch QFP)                 | Flash Development Toolkit (M16C/6N与M16C/6S群烧写时需与E8a配套使用) or M3A-0806 | -          | C Compiler Package for R8C, M16C (R32C/M32C/M16C) Series: (ROC52100XSW05R) (MISRA C可选) | High-performance Embedded Workshop | M3T-MR30/4  |                 |   |   |   |                 |                 |  |                           |   |   |   |   |   |
|          | M16C/64A |                 | -                   |     |          |                         |        |                             |             |     |                 |                 | ROE0100TNPFFJ00 (100-pin 0.65mm-pitch QFP)                 |  |            |  |                                    |             |                 |   |   |   |                 |                 |  |                           |   |   |   |   |   |
|          | M16C/63  |                 | -                   |     |          |                         |        |                             |             |     |                 |                 | ROE0100TNPFFK00 (100-pin 0.5mm-pitch LQFP)                 |  |            |  |                                    |             |                 |   |   |   |                 |                 |  |                           |   |   |   |   |   |
|          | M16C/6C  |                 | ROK536CAMS000BE     |     |          |                         |        |                             |             |     |                 |                 | ROE530650CFK10 (128-pin 0.5mm-pitch LQFP)                  |  |            |  |                                    |             |                 |   |   |   |                 |                 |  |                           |   |   |   |   |   |
|          | M16C/64  | -               | 仅R5F3640D芯片可用       |     |          |                         |        |                             |             |     |                 |                 | -  | -  |            |  |                                    |             | -               | - | - | - | ROE001000 EMU00 | ROE530640 MCU00 | ROE0100TNPFFJ00 (100-pin 0.65mm-pitch QFP) | Flash Development Toolkit | - | -   | - |   |   |
|          | M16C/62N | -               | 仅M3062GF8NFP/GP芯片可用 |     |          |                         |        |                             |             |     |                 |                 |  |  |            |  |                                    |             |                 |   |   |   |                 |                 | ROE0100TNPFFK00 (100-pin 0.5mm-pitch LQFP) |                           |   |   |   |   |   |
|          | M16C/62A | -               | -                   |     |          |                         |        |                             |             |     |                 |                 | 仅M30620FCAGP/GP、M30621FCAGP、M30624FGAGP/GP、M30625FGAGP芯片可用 | -  |            |  |                                    |             | -               | - | - | - | -               | -               | -  | -                         | - | ROK3100PSZ000BR (PROPO100JB-A (100P6S-A)) | - | - | - |
|          | M16C/62M | -               | -                   |     |          |                         |        |                             |             |     |                 |                 | 仅M30620FCMFP/GP、M30621FCMGP、M30624FGMFP/GP、M30625FGMGP芯片可用 | -  |            |  |                                    |             | -               | - | - | - | -               | -               | -  | -                         | - | ROK3100PQZ000BR (PLQPO100KB-A (100P6Q-A)) |   |   |   |
| M16C/6S  | -        | 仅M306S0FA芯片可用   | 仅M306S0FA芯片可用       | -   | -        | -                       | PC7501 | M3062 PT-EPB                | M306S0T-PRB | -   | -               | -               | -  | -  | -          | -  | -                                  | -           |                 |   |   |   |                 |                 |  |                           |   |   |   |   |   |
| R32C/100 | R32C/160 | -               | ○                   | ○   | -        | -                       | -      | -                           | -           | -   | -               | -               | -  | Flash Development Toolkit  | -          | C Compiler Package for R8C, M16C (R32C/M32C/M16C) Series: (ROC52100XSW05R) (MISRA C可选) | High-performance Embedded Workshop | M3T-MR100/4 |                 |   |   |   |                 |                 |  |                           |   |   |   |   |   |
|          | R32C/161 |                 |                     |     |          |                         |        |                             |             |     |                 |                 |  |  |            |  |                                    |             |                 |   |   |   |                 |                 |  |                           |   |   |   |   |   |
|          | R32C/151 |                 |                     |     |          |                         |        |                             |             |     |                 |                 |  |  |            |  |                                    |             |                 |   |   |   |                 |                 |  |                           |   |   |   |   |   |
|          | R32C/152 |                 |                     |     |          |                         |        |                             |             |     |                 |                 |  |  |            |  |                                    |             |                 |   |   |   |                 |                 |  |                           |   |   |   |   |   |
|          | R32C/153 |                 |                     |     |          |                         |        |                             |             |     |                 |                 |  |  |            |  |                                    |             |                 |   |   |   |                 |                 |  |                           |   |   |   |   |   |
|          | R32C/156 |                 |                     |     |          |                         |        |                             |             |     |                 |                 |  |  |            |  |                                    |             |                 |   |   |   |                 |                 |  |                           |   |   |   |   |   |
|          | R32C/157 |                 |                     |     |          |                         |        |                             |             |     |                 |                 |  |  |            |  |                                    |             |                 |   |   |   |                 |                 |  |                           |   |   |   |   |   |
|          | R32C/133 |                 |                     |     |          |                         |        |                             |             |     |                 |                 |  |  |            |  |                                    |             |                 |   |   |   |                 |                 |  |                           |   |   |   |   |   |
|          | R32C/134 |                 |                     |     |          |                         |        |                             |             |     |                 |                 |  |  |            |  |                                    |             |                 |   |   |   |                 |                 |  |                           |   |   |   |   |   |
|          | R32C/120 |                 |                     |     |          |                         |        |                             |             |     |                 |                 |  |  |            |  |                                    |             |                 |   |   |   |                 |                 |  |                           |   |   |   |   |   |
|          | R32C/121 |                 |                     |     |          |                         |        |                             |             |     |                 |                 |  |  |            |  |                                    |             |                 |   |   |   |                 |                 |  |                           |   |   |   |   |   |
|          | R32C/116 |                 |                     |     |          |                         |        |                             |             |     |                 |                 |  |  |            |  |                                    |             | ROK564189S000BE |   |   |   |                 |                 |  |                           |   |   |   |   |   |
|          | R32C/117 |                 |                     |     |          |                         |        |                             |             |     |                 |                 |  |  |            |  |                                    |             | ROK564112S000BE |   |   |   |                 |                 |  |                           |   |   |   |   |   |
|          | R32C/145 |                 |                     |     |          |                         |        |                             |             |     |                 |                 |  |  |            |  |                                    |             |                 |   |   |   |                 |                 |  |                           |   |   |   |   |   |

注：  
① 限量供应，如需，请联系供应商。

SuperH RISC engine族SH/Tiny

| 系列            | 型号             | 存储器        |            |                | 最高工作频率/工作电压    | 最小指令执行时间     | 乘算器      | DMA         |                    |           | 外部总线扩展      |          |       | 时钟      |       |        | 电压检测                | AD转换 | 定时器位数          |              |          | 定时器功能     |            |    | 串行接口② |     |       | 外部中断引脚数 | 工作温度范围(°C) | 封装(mm) | 应用领域   |                     |              |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
|---------------|----------------|------------|------------|----------------|----------------|--------------|----------|-------------|--------------------|-----------|-------------|----------|-------|---------|-------|--------|---------------------|------|----------------|--------------|----------|-----------|------------|----|-------|-----|-------|---------|------------|--------|--------|---------------------|--------------|--|----------------|---------------|----------|----------|------|---------|---|---|---|---|---|--------|--------------|--------|--------------|----------------|--------------|----------|---|---|---|---|---|---|---|---|---|---|--------|--------------|----------------|--------------|----------|---|---|---|---|---|---|---|---|---|---|--------|--------------|----------------|--------------|----------|---|---|---|---|---|---|---|---|---|--------|--------------|-----|----------------|---|----------------|--------------|----------|---|---|---|---|---|---|---|--------|--------------|--|-------|--------------|----------|---|----|---|---|---|---|---|---|---|--------|--------------|--------|----------------|--------------|----------|---|---|---|---|---|---|---|---|---|--------|---------------------|
|               |                | ROM(bytes) | RAM(bytes) | ROM类型①         |                |              |          | 数据闪存(bytes) | DMA(DMAC Channels) | DTC/DMAC1 | 地址返回(bytes) | SDRAM控制器 | PC控制器 | Endian版 | I/O接口 | PLL    |                     |      | 副时钟(32.768kHz) | 内部振荡器(Hz)    | 振荡停止检测   | 上电复位(POR) | 低电压检测(LVD) | 8位 | 16位   | 32位 | PWM输出 |         |            |        |        | 事件计数器               | 三相变频控制       | 三相变频控制   | 看门狗定时器         | 串行接口(时钟同步/异步) | 时钟同步串行接口 | 时钟异步串行接口 | PC总线 | SSU特殊接口 |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
| SH/Tiny       | R5F71240AD50FP | 16K        | 4K         | F              | 50MHz/4.0~5.5V | 65MIPS@50MHz | 32x32~64 |             |                    |           |             |          |       |         |       |        | 10位x8               | -    | 8              | -            | 12       | 8         | 2          | 1  | 0     | 2   | -     | 1       | -          | -      | 4      | -40~85              | PLQP0048JA-A | 民用设备:<br>空调、冰箱、<br>洗衣机、吸尘器、<br>中央空调<br>工业设备:<br>通用反相控制器、<br>UPS、AC伺服 |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
|               | R5F71240AD50NP |            |            |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     | -    | 8              | -            | 12       | 8         | 2          | 1  | 0     | 2   | -     | 1       | -          | -      | 4      | -40~85              | PVQN0052LE-A |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
|               | R5F71240AN50FP |            |            |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     | -    | 8              | -            | 12       | 8         | 2          | 1  | 0     | 2   | -     | 1       | -          | -      | 4      | -20~85              | PLQP0048JA-A |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
|               | R5F71240AN50NP |            |            |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     | -    | 8              | -            | 12       | 8         | 2          | 1  | 0     | 2   | -     | 1       | -          | -      | 4      | -20~85              | PVQN0052LE-A |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
|               | R5F71241AD50FP | 32K        |            |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     | -    | 50MHz/4.0~5.5V | 65MIPS@50MHz | 32x32~64 |           |            |    |       |     |       |         |            |        |        | 10位x8               | -            |  | 8              | -             | 12       | 8        | 2    | 1       | 0 | 2 | - | 1 | - | -      | 4            | -40~85 | PLQP0048JA-A |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
|               | R5F71241AD50NP |            |            |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     | -            |  | 8              | -             | 12       | 8        | 2    | 1       | 0 | 2 | - | 1 | - | -      | 4            | -40~85 | PVQN0052LE-A |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
|               | R5F71241AN50FP |            |            |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     | -            |  | 8              | -             | 12       | 8        | 2    | 1       | 0 | 2 | - | 1 | - | -      | 4            | -20~85 | PLQP0048JA-A |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
|               | R5F71241AN50NP |            |            |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     | -            |  | 8              | -             | 12       | 8        | 2    | 1       | 0 | 2 | - | 1 | - | -      | 4            | -20~85 | PVQN0052LE-A |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
|               | R5F71242D50FP  | 64K        | 8K         |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     | -            |  | 50MHz/4.0~5.5V | 65MIPS@50MHz  | 32x32~64 |          |      |         |   |   |   |   |   |        |              | 10位x8  | -            | 8              | -            | 12       | 8 | 2 | 1 | 0 | 2 | - | 1 | - | - | 4 | -40~85 | PLQP0048JA-A |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
|               | R5F71242D50NP  |            |            |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     |              |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        | -            | 8              | -            | 12       | 8 | 2 | 1 | 0 | 2 | - | 1 | - | - | 4 | -40~85 | PVQN0052LE-A |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
|               | R5F71242N50FP  |            |            |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     |              |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        | -            | 8              | -            | 12       | 8 | 2 | 1 | 0 | 2 | - | 1 | - | - | 4 | -20~85 | PLQP0048JA-A |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
|               | R5F71242N50NP  |            |            |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     |              |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        | -            | 8              | -            | 12       | 8 | 2 | 1 | 0 | 2 | - | 1 | - | - | 4 | -20~85 | PVQN0052LE-A |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
|               | R5F71243D50FP  | 128K       |            |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     |              |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        | -            | 50MHz/4.0~5.5V | 65MIPS@50MHz | 32x32~64 |   |   |   |   |   |   |   |   |   |   | 10位x8  | -            | 8              | -            | 12       | 8 | 2 | 1 | 0 | 2 | - | 1 | - | - | 4 | -40~85 | PLQP0048JA-A |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
|               | R5F71243D50NP  |            |            |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     |              |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        | -            | 8              | -            | 12       | 8 | 2 | 1 | 0 | 2 | - | 1 | - | - | 4 | -40~85 | PVQN0052LE-A |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
|               | R5F71243N50FP  |            |            |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     |              |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        | -            | 8              | -            | 12       | 8 | 2 | 1 | 0 | 2 | - | 1 | - | - | 4 | -20~85 | PLQP0048JA-A |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
|               | R5F71243N50NP  |            |            |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     |              |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        | -            | 8              | -            | 12       | 8 | 2 | 1 | 0 | 2 | - | 1 | - | - | 4 | -20~85 | PVQN0052LE-A |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
|               | R5F71250AD50FA | 16K        | 4K         |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     |              |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        | -            | 50MHz/4.0~5.5V | 65MIPS@50MHz | 32x32~64 |   |   |   |   |   |   |   |   |   |   | 10位x8  | -            | 8              | -            | 16       | 8 | 2 | 1 | 0 | 3 | - | - | - | 5 | -      | PRQP0064GC-A |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
|               | R5F71250AD50FP |            |            |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     |              |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        | -            | 8              | -            | 16       | 8 | 2 | 1 | 0 | 3 | - | - | - | 5 | -40~85 | PLQP0064KB-A |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
|               | R5F71250AD50NP |            |            |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     |              |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        | -            | 8              | -            | 16       | 8 | 2 | 1 | 0 | 3 | - | - | - | 5 | -20~85 | PVQN0064LB-A |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
|               | R5F71250AN50FA |            |            |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     |              |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        | -            | 8              | -            | 16       | 8 | 2 | 1 | 0 | 3 | - | - | - | 5 | -      | PRQP0064GC-A |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
|               | R5F71250AN50FP | 32K        |            |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     |              |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        | -            | 50MHz/4.0~5.5V | 65MIPS@50MHz | 32x32~64 |   |   |   |   |   |   |   |   |   |        | 10位x8        | -   | 8              | - | 16             | 8            | 2        | 1 | 0 | 3 | - | - | - | 5 | -20~85 | PLQP0064KB-A |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
|               | R5F71250AN50NP |            |            |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     |              |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              | -   | 8              | - | 16             | 8            | 2        | 1 | 0 | 3 | - | - | - | 5 | -20~85 | PVQN0064LB-A |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
|               | R5F71250AN50FA |            |            |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     |              |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              | -   | 8              | - | 16             | 8            | 2        | 1 | 0 | 3 | - | - | - | 5 | -      | PRQP0064GC-A |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
|               | R5F71251AD50FA |            |            |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     |              |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              | 64K | 8K             | - | 50MHz/4.0~5.5V | 65MIPS@50MHz | 32x32~64 |   |   |   |   |   |   |   |        |              |  | 10位x8 | -            | 8        | - | 16 | 8 | 2 | 1 | 0 | 3 | - | - | -      | 5            | -40~85 | PLQP0064KB-A   |              |          |   |   |   |   |   |   |   |   |   |        |                     |
|               | R5F71251AD50FP | -          | 8          |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     |              |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       | -            | 16       | 8 | 2  | 1 | 0 | 3 | - | - | - | 5 | -40~85 | PVQN0064LB-A |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
|               | R5F71251AD50NP | -          | 8          |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     |              |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       | -            | 16       | 8 | 2  | 1 | 0 | 3 | - | - | - | 5 | -20~85 | PRQP0064GC-A |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
|               | R5F71251AN50FA | -          | 8          |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     |              |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       | -            | 16       | 8 | 2  | 1 | 0 | 3 | - | - | - | 5 | -20~85 | PLQP0064KB-A |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
|               | R5F71251AN50FP | 128K       |            |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     |              |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              | -   | 50MHz/4.0~5.5V |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       | 65MIPS@50MHz | 32x32~64 |   |    |   |   |   |   |   |   |   |        | 10位x8        | -      | 8              | -            | 16       | 8 | 2 | 1 | 0 | 3 | - | - | - | 5 | -20~85 | PVQN0064LB-A        |
|               | R5F71251AN50NP |            |            |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     |              |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              | -      | 8              | -            | 16       | 8 | 2 | 1 | 0 | 3 | - | - | - | 5 | -20~85 | PVQN0064LB-A        |
|               | R5F71252D50FA  |            |            |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     |              |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              | -      | 8              | -            | 16       | 8 | 2 | 1 | 0 | 3 | - | - | - | 5 | -40~85 | PRQP0064GC-A        |
|               | R5F71252D50FP  |            |            |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     |              |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              | -      | 8              | -            | 16       | 8 | 2 | 1 | 0 | 3 | - | - | - | 5 | -40~85 | PLQP0064KB-A(10x10) |
|               | R5F71252D50NP  | 64K        | 8K         |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     |              |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              | -      | 50MHz/4.0~5.5V | 65MIPS@50MHz | 32x32~64 |   |   |   |   |   |   |   |   |   |        | 10位x8               |
| R5F71252N50FA | -              |            |            | 8              | -              | 16           | 8        | 2           | 1                  | 0         | 3           | -        | -     | -       | 5     | -20~85 | PRQP0064GC-A        |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     |              |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
| R5F71252N50FP | -              |            |            | 8              | -              | 16           | 8        | 2           | 1                  | 0         | 3           | -        | -     | -       | 5     | -20~85 | PLQP0064KB-A(10x10) |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     |              |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
| R5F71252N50NP | -              |            |            | 8              | -              | 16           | 8        | 2           | 1                  | 0         | 3           | -        | -     | -       | 5     | -20~85 | PVQN0064LB-A        |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     |              |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
| R5F71253D50FA | 128K           |            | -          | 50MHz/4.0~5.5V | 65MIPS@50MHz   | 32x32~64     |          |             |                    |           |             |          |       |         |       |        | 10位x8               |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     |              | -  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
| R5F71253D50FP |                |            |            |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     | -    | 8              | -            | 16       | 8         | 2          | 1  | 0     | 3   | -     | -       | -          | 5      | -40~85 | PLQP0064KB-A(10x10) |              |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
| R5F71253D50NP |                |            |            |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     | -    | 8              | -            | 16       | 8         | 2          | 1  | 0     | 3   | -     | -       | -          | 5      | -40~85 | PVQN0064LB-A        |              |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
| R5F71253N50FA |                |            |            |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     | -    | 8              | -            | 16       | 8         | 2          | 1  | 0     | 3   | -     | -       | -          | 5      | -20~85 | PRQP0064GC-A        |              |  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
| R5F71253N50FP | 128K           |            |            |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     | -    | 50MHz/4.0~5.5V | 65MIPS@50MHz | 32x32~64 |           |            |    |       |     |       |         |            |        |        | 10位x8               |              | -  |                |               |          |          |      |         |   |   |   |   |   |        |              |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |
| R5F71253N50NP |                |            |            |                |                |              |          |             |                    |           |             |          |       |         |       |        |                     |      |                |              |          |           |            |    |       |     |       |         |            |        |        |                     | -            | 8  | -              | 16            | 8        | 2        | 1    | 0       | 3 | - | - | - | 5 | -20~85 | PVQN0064LB-A |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |   |        |              |                |              |          |   |   |   |   |   |   |   |   |   |        |              |     |                |   |                |              |          |   |   |   |   |   |   |   |        |              |  |       |              |          |   |    |   |   |   |   |   |   |   |        |              |        |                |              |          |   |   |   |   |   |   |   |   |   |        |                     |

注:  
 ① SH/Tiny芯片的ROM类型均为Flash。  
 ② 串行接口(时钟同步/异步)代表此接口既可以做时钟同步串行接口使用,也可以做时钟异步串行接口使用。  
 时钟同步串行接口指此接口只能用做时钟同步串行接口使用,时钟异步串行接口指此接口只能用做时钟异步串行接口使用。

| 系列     | 型号              | 存储器       |           |        | 最高工作频率/工作电压                     | 最小指令执行时间       | 乘算器      | DMA            |          |          |        | 外部总线扩展   |     |       | I/O端口 | 时钟<br>PLL | 电压检测<br>上电复位(POR) | AD转换 | 定时器位数 |      |      | 定时器功能  |       |        |        |        | 串行接口②             |          |        | 外部中断引脚数      | 工作温度范围(°C)   | 封装(mm)       | 应用领域   |              |              |                                    |
|--------|-----------------|-----------|-----------|--------|---------------------------------|----------------|----------|----------------|----------|----------|--------|----------|-----|-------|-------|-----------|-------------------|------|-------|------|------|--------|-------|--------|--------|--------|-------------------|----------|--------|--------------|--------------|--------------|--------|--------------|--------------|------------------------------------|
|        |                 | ROM(Byte) | RAM(Byte) | ROM类型① |                                 |                |          | DMA0(Channels) | DTC/DMA1 | SDRAM控制器 | PCI控制器 | Enhanced | 8位  | 16位   |       |           |                   |      | 32位   | 输入捕捉 | 输出比较 | PWM/输出 | 事件计数器 | 二相编码输入 | 三相变频控制 | 看门狗定时器 | 串行接口<br>(时钟同步/异步) | 时钟同步串行接口 | IC总线   |              |              |              |        | SSU/特殊串口     |              |                                    |
| SH7260 | R5S72611RB120FP | -         | 32K       | L      | 120MHz/3.0~3.6V                 | 288MIPS@120MHz | 32x32~64 | 8              | -        | 0        | -      | -        | 123 | 10位x8 | 2     | 6         | -                 | 19   | 16    | 16   | 8    | 2      | 1     | 0      | 8      | -      | 3                 | 2        | 17     | PLQP0176KB-A | -20~70       | -            |        |              |              |                                    |
|        | 8               |           |           |        |                                 |                |          | -              | 0        | -        | -      | 2        |     |       | 6     | -         | 19                | 16   | 16    | 8    | 2    | 1      | 0     | 8      | -      | 3      | 2                 | 17       | -40~85 |              |              |              |        |              |              |                                    |
|        | 8               |           |           |        |                                 |                |          | -              | 0        | -        | -      | 2        |     |       | 6     | -         | 19                | 16   | 16    | 8    | 2    | 1      | 0     | 8      | -      | 3      | 3                 | 17       |        |              |              |              | -20~70 |              |              |                                    |
|        | 8               |           |           |        |                                 |                |          | -              | 0        | -        | -      | 2        |     |       | 6     | -         | 19                | 16   | 16    | 8    | 2    | 1      | 0     | 8      | -      | 3      | 3                 | 17       |        |              |              |              |        | -40~85       |              |                                    |
|        | 8               |           |           |        |                                 |                |          | -              | 0        | -        | -      | 2        |     |       | 6     | -         | 19                | 16   | 16    | 8    | 2    | 1      | 0     | 8      | -      | 3      | 3                 | 17       |        |              |              |              |        |              | -20~70       |                                    |
|        | 8               |           |           |        |                                 |                |          | -              | 0        | -        | -      | 2        |     |       | 6     | -         | 19                | 16   | 16    | 8    | 2    | 1      | 0     | 8      | -      | 3      | 3                 | 17       |        |              |              |              |        |              |              | -40~85                             |
|        | R5S72613RP100FP | -         | 1088K     | L      | 144MHz/<br>1.1~1.3V<br>3.0~3.6V | 345MIPS@144MHz | 32x32~64 | 16             | -        | 0        | -      | -        | 129 | 10位x8 | -     | 7         | -                 | 16   | 16    | 16   | 7    | 2      | 1     | 0      | 8      | -      | 3                 | 6        |        | 17           | PLQP0208KB-A | -40~85       |        |              |              |                                    |
|        | 16              |           |           |        |                                 |                |          | -              | 0        | -        | -      | -        |     |       | 7     | -         | 16                | 16   | 16    | 7    | 2    | 1      | 0     | 8      | -      | 3      | 6                 | 17       | -20~85 |              |              |              |        |              |              |                                    |
|        | 16              |           |           |        |                                 |                |          | -              | 0        | -        | -      | -        |     |       | 7     | -         | 16                | 16   | 16    | 7    | 2    | 1      | 0     | 8      | -      | 3      | 6                 | 17       |        | -40~85       |              |              |        |              |              |                                    |
|        | 16              |           |           |        |                                 |                |          | -              | 0        | -        | -      | -        |     |       | 7     | -         | 16                | 16   | 16    | 7    | 2    | 1      | 0     | 8      | -      | 3      | 6                 | 17       |        |              |              |              | -20~85 |              |              |                                    |
|        | 16              |           |           |        |                                 |                |          | -              | 0        | -        | -      | -        |     |       | 7     | -         | 16                | 16   | 16    | 7    | 2    | 1      | 0     | 8      | -      | 3      | 6                 | 17       |        |              |              |              |        | -40~85       |              |                                    |
|        | 16              |           |           |        |                                 |                |          | -              | 0        | -        | -      | -        |     |       | 7     | -         | 16                | 16   | 16    | 7    | 2    | 1      | 0     | 8      | -      | 3      | 6                 | 17       |        |              |              |              |        |              | -20~85       |                                    |
|        | R5S72642W144FPU | -         | 704K      | L      | 144MHz/<br>1.1~1.3V<br>3.0~3.6V | 345MIPS@144MHz | 32x32~64 | 16             | -        | 0        | -      | -        | 99  | 10位x4 | -     | 7         | -                 | 16   | 16    | 16   | 7    | 2      | 1     | 0      | 8      | -      | 3                 | 6        |        |              | 17           | PLQP0176KB-A |        |              |              | -40~85                             |
|        | 16              |           |           |        |                                 |                |          | -              | 0        | -        | -      | -        |     |       | 7     | -         | 16                | 16   | 16    | 7    | 2    | 1      | 0     | 8      | -      | 3      | 6                 | 17       | -20~85 |              |              |              |        |              |              |                                    |
|        | 16              |           |           |        |                                 |                |          | -              | 0        | -        | -      | -        |     |       | 7     | -         | 16                | 16   | 16    | 7    | 2    | 1      | 0     | 8      | -      | 3      | 6                 | 17       |        | -40~85       |              |              |        |              |              |                                    |
|        | 16              |           |           |        |                                 |                |          | -              | 0        | -        | -      | -        |     |       | 7     | -         | 16                | 16   | 16    | 7    | 2    | 1      | 0     | 8      | -      | 3      | 6                 | 17       |        |              | -20~85       |              |        |              |              |                                    |
|        | 16              |           |           |        |                                 |                |          | -              | 0        | -        | -      | -        |     |       | 7     | -         | 16                | 16   | 16    | 7    | 2    | 1      | 0     | 8      | -      | 3      | 6                 | 17       |        |              |              |              | -40~85 |              |              |                                    |
|        | 16              |           |           |        |                                 |                |          | -              | 0        | -        | -      | -        |     |       | 7     | -         | 16                | 16   | 16    | 7    | 2    | 1      | 0     | 8      | -      | 3      | 6                 | 17       |        |              |              |              |        | -20~85       |              |                                    |
|        | R5S72620P144FPU | -         | 80K       | L      | 200MHz/<br>1.1~1.3V<br>3.0~3.6V | 480MIPS@200MHz | 32x32~64 | 8              | -        | 0        | -      | -        | 99  | 10位x8 | -     | 7         | -                 | 16   | 16    | 16   | 7    | 2      | 1     | 0      | 8      | -      | 3                 | 6        |        |              |              | 17           |        |              | PRQP0240KC-A | -20~85                             |
|        | 8               |           |           |        |                                 |                |          | -              | 0        | -        | -      | -        |     |       | 7     | -         | 16                | 16   | 16    | 7    | 2    | 1      | 0     | 4      | -      | 4      | 6                 | 17       | -40~85 |              |              |              |        |              |              |                                    |
|        | 8               |           |           |        |                                 |                |          | -              | 0        | -        | -      | -        |     |       | 7     | -         | 16                | 16   | 16    | 7    | 2    | 1      | 0     | 4      | -      | 4      | 6                 | 17       |        | -40~85       |              |              |        |              |              |                                    |
|        | 8               |           |           |        |                                 |                |          | -              | 0        | -        | -      | -        |     |       | 7     | -         | 16                | 16   | 16    | 7    | 2    | 1      | 0     | 4      | -      | 4      | 6                 | 17       |        |              | -40~85       |              |        |              |              |                                    |
|        | 14              |           |           |        |                                 |                |          | -              | 0        | -        | -      | -        |     |       | 9     | -         | 16                | 16   | 16    | 9    | 2    | 1      | 0     | 6      | -      | 4      | 8                 | 17       |        |              |              | -40~85       |        |              |              |                                    |
|        | 14              |           |           |        |                                 |                |          | -              | 0        | -        | -      | -        |     |       | 9     | -         | 16                | 16   | 16    | 9    | 2    | 1      | 0     | 6      | -      | 4      | 8                 | 17       |        |              |              |              | -40~85 |              |              |                                    |
|        | R5S72653P200BG  | -         | 112K      | L      | 200MHz/<br>1.1~1.3V<br>3.0~3.6V | 480MIPS@200MHz | 32x32~64 | 14             | -        | 0        | -      | -        | 107 | 10位x8 | -     | 9         | -                 | 16   | 16    | 16   | 9    | 2      | 1     | 0      | 6      | -      | 4                 | 8        |        |              |              |              |        | 17           | PRBG0272GA-A | -40~85                             |
|        | 14              |           |           |        |                                 |                |          | -              | 0        | -        | -      | -        |     |       | 9     | -         | 16                | 16   | 16    | 9    | 2    | 1      | 0     | 6      | -      | 4      | 8                 | 17       | -40~85 |              |              |              |        |              |              |                                    |
|        | 14              |           |           |        |                                 |                |          | -              | 0        | -        | -      | -        |     |       | 9     | -         | 16                | 16   | 16    | 9    | 2    | 1      | 0     | 6      | -      | 4      | 8                 | 17       |        | -40~85       |              |              |        |              |              |                                    |
|        | 14              |           |           |        |                                 |                |          | -              | 0        | -        | -      | -        |     |       | 9     | -         | 16                | 16   | 16    | 9    | 2    | 1      | 0     | 6      | -      | 4      | 8                 | 17       |        |              | -40~85       |              |        |              |              |                                    |
|        | 14              |           |           |        |                                 |                |          | -              | 0        | -        | -      | -        |     |       | 9     | -         | 16                | 16   | 16    | 9    | 2    | 1      | 0     | 6      | -      | 4      | 8                 | 17       |        |              |              | -40~85       |        |              |              |                                    |
|        | 14              |           |           |        |                                 |                |          | -              | 0        | -        | -      | -        |     |       | 9     | -         | 16                | 16   | 16    | 9    | 2    | 1      | 0     | 6      | -      | 4      | 8                 | 17       |        |              |              |              | -40~85 |              |              |                                    |
|        | R5F72114D160FPV | 384K      | 24K       | F      | 160MHz/<br>1.4~1.6V<br>3.0~3.6V | 320MIPS@160MHz | 32x32~64 | 8              | -        | 0        | -      | 0        | 75  | 12位x8 | -     | 11        | -                 | 30   | 24    | 24   | 11   | 2      | 2     | 0      | 4      | -      | 1                 | -        |        |              |              |              |        | 9            | PLQP0144KA-A | -40~85                             |
|        | R5F72115D160FPV | 512K      | 32K       | F      | 160MHz/<br>1.4~1.6V<br>3.0~3.6V | 320MIPS@160MHz | 32x32~64 | 8              | -        | 0        | -      | 0        | 75  | 12位x8 | -     | 11        | -                 | 30   | 24    | 24   | 11   | 2      | 2     | 0      | 4      | -      | 1                 | -        | 9      |              |              |              |        | PLQP0144KA-A | -40~85       | AC伺服、变频器、自动售货机、视频打印机、条形码读取器、彩色复印机等 |

SuperH RISC engine族SH2A

| 系列              | 型号             | 存储器             |            |                                   | 最高工作频率/工作电压     | 最小指令执行时间       | 乘数器      | DMA             |            |                 |                |          | 外部总线扩展 |        | I/O端口 | 时钟        |        | 电压检测 | AD转换 | 定时器位数 |     |       | 定时器功能 |      |        |       |        | 串行接口②  |        |        |          | 封装(mm) | 应用领域         |              |                |         |            |        |        |              |   |
|-----------------|----------------|-----------------|------------|-----------------------------------|-----------------|----------------|----------|-----------------|------------|-----------------|----------------|----------|--------|--------|-------|-----------|--------|------|------|-------|-----|-------|-------|------|--------|-------|--------|--------|--------|--------|----------|--------|--------------|--------------|----------------|---------|------------|--------|--------|--------------|---|
|                 |                | ROM(Bytes)      | RAM(Bytes) | ROM类型①                            |                 |                |          | DMA(C/channels) | DTC/DMAcII | SDRAM控制器        | PCI控制器         | Endian版  | PL     | PLL    |       | 上电复位(POR) | 振荡停止检测 |      |      | 8位    | 16位 | 32位   | 输入捕捉  | 输出比较 | PWM/输出 | 事件计数器 | 二相编码输入 | 三相变频控制 | 看门狗定时器 | 串行接口   | 时钟同步串行接口 |        |              | IC总线         | SSU/特殊串口       | 外部中断引脚数 | 工作温度范围(°C) |        |        |              |   |
| SH7243          | R5F72433D100FP | 128K            | 8K         | F                                 | 100MHz/3.0~5.5V | 200MIPS@100MHz | 32x32~64 | 8               | 0          | 0               | -              | -        | 71     | 0      | 0     | -         | 12位x8  | -    | 11   | -     | 30  | 24    | 24    | 11   | 2      | 2     | 0      | 3      | -      | -      | -        | 9      | -40~85       | PLQP0100KB-A | 车载音响、家用音响、工业设备 |         |            |        |        |              |   |
|                 | 8              |                 |            |                                   |                 |                |          | 0               | 0          | -               | -              | 0        |        | 0      | -     | -         |        | 11   | -    | 30    | 24  | 24    | 11    | 2    | 2      | 0     | 3      | -      | -      | -      | 9        | -20~85 |              |              |                |         |            |        |        |              |   |
|                 | 8              | 0               | 0          |                                   |                 |                |          | -               | -          | 0               | 0              | -        |        | -      | 11    | -         |        | 30   | 24   | 24    | 11  | 2     | 2     | 0    | 3      | -     | -      | -      | 9      | -40~85 |          |        |              |              |                |         |            |        |        |              |   |
|                 | 8              | 0               | 0          |                                   |                 |                |          | -               | -          | 0               | 0              | -        |        | -      | 11    | -         |        | 30   | 24   | 24    | 11  | 2     | 2     | 0    | 3      | -     | -      | -      | 9      | -20~85 |          |        |              |              |                |         |            |        |        |              |   |
| SH7280          | R5F72855D100FP | 512K            | 24K        | F                                 | 100MHz/3.0~5.5V | 200MIPS@100MHz | 32x32~64 | 8               | 0          | 0               | -              | -        | 99     | 0      | 0     | -         | 12位x8  | -    | 11   | -     | 30  | 24    | 24    | 11   | 2      | 2     | 0      | 5      | -      | 1      | 1        | 9      | -40~85       | PLQP0144KA-A | AC伺服、通用逆变器、机器人 |         |            |        |        |              |   |
|                 | 8              |                 |            |                                   |                 |                |          | 0               | 0          | -               | -              | 0        |        | 0      | -     | -         |        | 11   | -    | 30    | 24  | 24    | 11    | 2    | 2      | 0     | 5      | -      | 1      | 1      | 9        | -20~85 |              |              |                |         |            |        |        |              |   |
|                 | 8              | 0               | 0          |                                   |                 |                |          | -               | -          | 113             | 0              | 0        | -      | 12位x12 | -     | 11        | -      | 30   | 24   | 24    | 11  | 2     | 2     | 0    | 5      | -     | 1      | 1      | 9      | -40~85 |          |        |              |              |                |         |            |        |        |              |   |
|                 | 8              | 0               | 0          |                                   |                 |                |          | -               | -          |                 | 0              | 0        | -      |        | -     | 11        | -      | 30   | 24   | 24    | 11  | 2     | 2     | 0    | 5      | -     | 1      | 1      | 9      | -20~85 |          |        |              |              |                |         |            |        |        |              |   |
|                 | 8              | 0               | 0          |                                   |                 |                |          | -               | -          | 0               | 0              | -        | -      | 11     | -     | 30        | 24     | 24   | 11   | 2     | 2   | 0     | 5     | -    | 1      | 1     | 9      | -40~85 |        |        |          |        |              |              |                |         |            |        |        |              |   |
|                 | 8              | 0               | 0          |                                   |                 |                |          | -               | -          | 0               | 0              | -        | -      | 11     | -     | 30        | 24     | 24   | 11   | 2     | 2   | 0     | 5     | -    | 1      | 1     | 9      | -20~85 |        |        |          |        |              |              |                |         |            |        |        |              |   |
|                 | 8              | 0               | 0          |                                   |                 |                |          | -               | -          | 0               | 0              | -        | -      | 11     | -     | 30        | 24     | 24   | 11   | 2     | 2   | 0     | 5     | -    | 1      | 1     | 9      | -40~85 |        |        |          |        |              |              |                |         |            |        |        |              |   |
|                 | 8              | 0               | 0          |                                   |                 |                |          | -               | -          | 0               | 0              | -        | -      | 11     | -     | 30        | 24     | 24   | 11   | 2     | 2   | 0     | 5     | -    | 1      | 1     | 9      | -20~85 |        |        |          |        |              |              |                |         |            |        |        |              |   |
|                 | 8              | 0               | 0          |                                   |                 |                |          | -               | -          | 0               | 0              | -        | -      | 11     | -     | 30        | 24     | 24   | 11   | 2     | 2   | 0     | 5     | -    | 1      | 1     | 9      | -40~85 |        |        |          |        |              |              |                |         |            |        |        |              |   |
|                 | 8              | 0               | 0          |                                   |                 |                |          | -               | -          | 0               | 0              | -        | -      | 11     | -     | 30        | 24     | 24   | 11   | 2     | 2   | 0     | 5     | -    | 1      | 1     | 9      | -20~85 |        |        |          |        |              |              |                |         |            |        |        |              |   |
|                 | 8              | 0               | 0          |                                   |                 |                |          | -               | -          | 0               | 0              | -        | -      | 11     | -     | 30        | 24     | 24   | 11   | 2     | 2   | 0     | 5     | -    | 1      | 1     | 9      | -40~85 |        |        |          |        |              |              |                |         |            |        |        |              |   |
|                 | 8              | 0               | 0          |                                   |                 |                |          | -               | -          | 0               | 0              | -        | -      | 11     | -     | 30        | 24     | 24   | 11   | 2     | 2   | 0     | 5     | -    | 1      | 1     | 9      | -20~85 |        |        |          |        |              |              |                |         |            |        |        |              |   |
|                 | 8              | 0               | 0          |                                   |                 |                |          | -               | -          | 0               | 0              | -        | -      | 11     | -     | 30        | 24     | 24   | 11   | 2     | 2   | 0     | 5     | -    | 1      | 1     | 9      | -40~85 |        |        |          |        |              |              |                |         |            |        |        |              |   |
|                 | 8              | 0               | 0          |                                   |                 |                |          | -               | -          | 0               | 0              | -        | -      | 11     | -     | 30        | 24     | 24   | 11   | 2     | 2   | 0     | 5     | -    | 1      | 1     | 9      | -20~85 |        |        |          |        |              |              |                |         |            |        |        |              |   |
|                 | SH7200         | R5S72011RB120FP | 32K        |                                   |                 |                |          | -               | L          | 120MHz/3.0~3.6V | 288MIPS@120MHz | 32x32~64 | 8      | -      | 0     | -         | -      | 123  | 0    | -     | -   | 10位x8 | 2     | 6    | -      | 19    | 16     | 16     | 8      | 2      | 1        | 0      | 8            | -            |                | 3       | 2          | 17     | -20~70 | PLQP0176KB-A | 民用电子产品：家用音响、照片复印机、多功能打印机等<br>工业设备：AC伺服、序列发生器、机器人等 |
|                 |                | 8               |            |                                   |                 |                |          |                 |            |                 |                |          | -      | 0      | -     | -         | 0      |      | -    | -     | 2   |       | 6     | -    | 19     | 16    | 16     | 8      | 2      | 1      | 0        | 8      | -            | 3            |                | 2       | 17         | -20~85 |        |              |   |
| R5S72030W200FP  |                | 80K             | -          | 200MHz/1.1~1.3V<br>3.0~3.6V       | 480MIPS@200MHz  | 8              | -        | 0               |            | -               | -              |          | 99     | 0      | -     | -         | -      | 7    | -    | 16    | 16  | 16    | 7     | 2    | 1      | 0     | 4      | -      | 4      | 6      | 17       | -20~85 | PRQP0240KC-A |              |                |         |            |        |        |              |   |
| R5S72050W200BG  |                | 112K            | -          | 200MHz/1.1~1.3V<br>3.0~3.6V       |                 | 14             | -        | 0               |            | -               | -              |          | 107    | 0      | -     | -         | -      | 9    | -    | 16    | 16  | 16    | 9     | 2    | 1      | 0     | 6      | -      | 4      | 8      | 17       | -20~85 | PRBG0272GA-A |              |                |         |            |        |        |              |   |
| R5S72060W200FPV |                | 128K            | -          | 200MHz/1.15~1.35V<br>3.0~3.6V(总线) |                 | 8              | -        | 0               |            | -               | -              |          | 79     | 0      | -     | -         | -      | 11   | -    | 30    | 24  | 24    | 11    | 2    | 2      | 0     | 4      | -      | 1      | -      | 17       | -20~85 | PLQP0176KD-A |              |                |         |            |        |        |              |   |

注：  
① SH-2A系列芯片的ROM类型为：F(Flash memory)、L(ROMless)。



SuperH RISC engine族SH2

| 系列              | 型号              | 存储器        |                 |                | 最高工作频率/工作电压                | 最小指令执行时间       | 乘法器      | DMA |            |      |          | 外部总线扩展 |         |       |     | 时钟             |           |        |           | 电压检测       |        | AD转换器 | 定时器位数 |     |      | 定时器功能 |       |       |        |        |        | 串行接口②     |      |          |          |                    | 外部中断引脚数          | 工作温度范围(℃)                    | 封装(mm)  | 应用领域  |         |        |        |        |        |
|-----------------|-----------------|------------|-----------------|----------------|----------------------------|----------------|----------|-----|------------|------|----------|--------|---------|-------|-----|----------------|-----------|--------|-----------|------------|--------|-------|-------|-----|------|-------|-------|-------|--------|--------|--------|-----------|------|----------|----------|--------------------|------------------|------------------------------|---|---|---------|--------|--------|--------|--------|
|                 |                 | ROM(bytes) | RAM(bytes)      | ROM类型①         |                            |                |          | DMA | DTG/DMAcII | 地址空间 | SDRAM控制器 | PCI控制器 | Endian族 | I/O接口 | PLL | 副时钟(32.768kHz) | 内部振荡器(Hz) | 振荡停止检测 | 上电复位(POR) | 低电压检测(LVD) | 8位     |       | 16位   | 32位 | 输入捕捉 | 输出比较  | PWM输出 | 事件计数器 | 二相编码输入 | 三相变频控制 | 看门狗定时器 | (时钟同步/异步) | 串行接口 | 时钟同步串行接口 | 时钟异步串行接口 | I <sup>2</sup> C总线 |                  |                              |   |   | SSU特殊串口 |        |        |        |        |
|                 |                 |            |                 |                |                            |                |          |     |            |      |          |        |         |       |     |                |           |        |           |            |        |       |       |     |      |       |       |       |        |        |        |           |      |          |          |                    |                  |                              |   |   |         | 8位     | 16位    | 32位    | 输入捕捉   |
| SH7147          | R5F71475AK64FPV | 384K       | 16K             | F              | 64MHz/3.3V、5.0V            | 83.2MIPS@64MHz | 32x32→64 | -   | ○          | 128M | -        | -      | -       | 57    | ○   | -              | -         | -      | -         | -          | 12位x16 | -     | 10    | -   | 21   | 18    | 18    | 3     | 2      | 2      | ○      | 3         | -    | -        | -        | 1                  | 5                | -40~125                      | PLQP0100KB-A  | 汽车领域：<br>动力转向系统的变频控制、混合电动车等<br>工业领域：<br>通用变频器、AC伺服等 |         |        |        |        |        |
|                 | R5F71475BJ80FPV |            |                 |                | 80MHz/5.0V                 | 104MIPS@80MHz  |          | -   | ○          |      | -        | -      | -       | -     | -   | 10             | -         | 21     | 18        | 18         | 3      | 2     | 2     | ○   | 3    | -     | -     | -     | 1      | 5      | -40~85 |           |      |          |          |                    |                  |                              |   |   |         |        |        |        |        |
|                 | R5F71476AK64FPV | 512K       | 64MHz/3.3V、5.0V | 83.2MIPS@64MHz | -                          | ○              |          | -   | -          |      | -        | -      | -       | -     | -   | -              | -         | -      | -         | -          | -      | -     | 10    | -   | 21   | 18    | 18    | 3     | 2      | 2      | ○      | 3         | -    | -        | -        | 1                  | 5                | -40~125                      |   |   |         |        |        |        |        |
|                 | R5F71476BD80FPV |            | 80MHz/5.0V      | 104MIPS@80MHz  | -                          | ○              |          | -   | -          |      | -        | -      | -       | -     | -   | -              | -         | -      | -         | -          | -      | -     | -     | 10  | -    | 21    | 18    | 18    | 3      | 2      | 2      | ○         | 3    | -        | -        | -                  | 1                | 5                            |   |   | -40~85  |        |        |        |        |
|                 | R5F71476BJ80FPV |            | -               | -              | -                          | -              |          | -   | -          |      | -        | -      | -       | -     | -   | -              | -         | -      | -         | -          | -      | -     | -     | -   | 10   | -     | 21    | 18    | 18     | 3      | 2      | 2         | ○    | 3        | -        | -                  | -                | 1                            |   |   | 5       | -40~85 |        |        |        |
| SH7137          | R5F71314AD80FPV | 256K       | 16K             | F              | 80MHz/3.0~3.6V<br>4.0~5.5V | 12.5MIPS@80MHz | 32x32→64 | -   | ○          | 2M   | -        | -      | -       | 56    | ○   | -              | -         | -      | -         | -          | 12位x12 | -     | 11    | -   | 30   | 24    | 24    | 11    | 2      | 2      | ○      | 3         | -    | -        | 1        | 1                  | 5                | -40~85                       | PLQP0080JA-A<br>(FP-80WV)<br>PLQP0100KB-A<br>(FP-100UV)<br>PLQP0100KB-A<br>PLQP0080JA-A | 工业：<br>逆变交流伺服系统、机器人、测量仪器等等                          |         |        |        |        |        |
|                 | R5F71313AD80FPV | 128K       | 8K              |                |                            |                |          | -   | ○          |      | -        | -      | -       | 56    | ○   | -              | -         | -      | -         | -          | -      | -     | -     | -   | -    | 11    | -     | 30    | 24     | 24     | 11     | 2         | 2    | ○        | 3        | -                  | -                | 1                            |   |   | 1       | 5      | -40~85 |        |        |
|                 | R5F71323AD80FPV | 256K       | 8K              |                |                            |                |          | -   | ○          |      | -        | -      | -       | 73    | ○   | -              | -         | -      | -         | -          | -      | -     | -     | -   | -    | 11    | -     | 30    | 24     | 24     | 11     | 2         | 2    | ○        | 3        | -                  | -                | 1                            |   |   | 1       | 5      | -40~85 |        |        |
|                 | R5F71324AD80FPV | 128K       | 16K             |                | -                          |                |          | ○   | -          |      | -        | -      | 73      | ○     | -   | -              | -         | -      | -         | -          | -      | -     | -     | -   | 11   | -     | 30    | 24    | 24     | 11     | 2      | 2         | ○    | 3        | -        | -                  | 1                | 1                            |   |   | 5       | -40~85 |        |        |        |
|                 | R5F71374AD80FPV | 256K       | 16K             |                | 80MHz/3.0~3.6V<br>4.0~5.5V |                |          | -   | ○          |      | -        | -      | -       | 73    | ○   | -              | -         | -      | -         | -          | -      | -     | -     | -   | -    | 11    | -     | 30    | 24     | 24     | 11     | 2         | 2    | ○        | 3        | -                  | -                | 1                            |   |   | 1       | 5      | -40~85 |        |        |
|                 | R5F71374AN80FPV |            |                 |                |                            |                |          | -   | ○          |      | -        | -      | -       | 73    | ○   | -              | -         | -      | -         | -          | -      | -     | -     | -   | -    | -     | 11    | -     | 30     | 24     | 24     | 11        | 2    | 2        | ○        | 3                  | -                | -                            |   |   | 1       | 1      | 5      | -20~85 |        |
|                 | R5F71364AD80FPV |            |                 |                |                            |                |          | -   | ○          |      | -        | -      | -       | 56    | ○   | -              | -         | -      | -         | -          | -      | -     | -     | -   | -    | -     | 11    | -     | 30     | 24     | 24     | 11        | 2    | 2        | ○        | 3                  | -                | -                            |   |   | 1       | 1      | 5      | -40~85 |        |
| R5F71364AN80FPV | -               |            |                 | ○              |                            | -              | -        | -   | 56         | ○    | -        | -      | -       | -     | -   | -              | -         | -      | -         | -          | -      | -     | 11    | -   | 30   | 24    | 24    | 11    | 2      | 2      | ○      | 3         | -    | -        | 1        | 1                  | 5                | -20~85                       |   |   |         |        |        |        |        |
| SH7146          | R5F71494AD80FPV | 256K       | 8K              | F              | 80MHz/4.0~5.5V             | 104MIPS@80MHz  | 32x32→64 | -   | ○          | 128M | -        | -      | -       | 75    | ○   | -              | -         | -      | -         | 10位x12     | -      | 11    | -     | 30  | 24   | 24    | 11    | 2     | 2      | ○      | 3      | -         | -    | -        | -        | 5                  | -40~85           | PLQP0100KB-A<br>PLQP0080JA-A | 民用产品：<br>空调、冰箱、洗衣机、吸尘器、IH烹调炉等<br>工业设备：<br>通用变频器、UPS、AC伺服等                               |   |         |        |        |        |        |
|                 | R5F71494AN80FPV |            |                 |                |                            |                |          | -   | ○          |      | -        | -      | -       | -     | -   | -              | -         | 11     | -         | 30         | 24     | 24    | 11    | 2   | 2    | ○     | 3     | -     | -      | -      | -      | -         | -    | -        | -        | -                  | -                |                              |   | -   | 5       | -20~85 |        |        |        |
|                 | R5F71464AD80FPV |            |                 |                |                            |                |          | -   | ○          |      | -        | -      | -       | 57    | ○   | -              | -         | -      | -         | -          | -      | -     | -     | -   | -    | -     | 11    | -     | 30     | 24     | 24     | 11        | 2    | 2        | ○        | 3                  | -                |                              |   | -   | -       | -      | -      | 5      | -40~85 |
|                 | R5F71464AN80FPV |            |                 |                |                            |                |          | -   | ○          |      | -        | -      | -       | -     | -   | -              | -         | -      | -         | -          | -      | -     | -     | -   | -    | -     | -     | 11    | -      | 30     | 24     | 24        | 11   | 2        | 2        | ○                  | 3                |                              |   | -   | -       | -      | -      | -      | 5      |
| SH7046          | HD64F7046F      | 256K       | 12K             | F              | 50MHz/4.0~5.0V             | 65MIPS@50MHz   | 32x32→64 | -   | ○          | -    | -        | -      | -       | 54    | ○   | -              | -         | -      | -         | 10位x12     | -      | 8     | -     | 16  | 16   | 16    | 7     | 2     | 2      | ○      | 2      | -         | -    | -        | -        | 5                  | -20~75<br>-40~85 | PRQP0080JD-A                 | 空调、电冰箱和洗衣机、打印机、传真机和复印机、工业设备和机床、汽车引擎和动力转向系统  |   |         |        |        |        |        |
| SH7047          | HD64F7047F      | 256K       | 12K             | F              | 50MHz/5.0V                 | 65MIPS@50MHz   | 32x32→64 | -   | ○          | 256K | -        | -      | -       | 69    | ○   | -              | -         | -      | -         | 10位x16     | -      | 8     | -     | 16  | 16   | 16    | 7     | 2     | 2      | ○      | 3      | -         | -    | -        | -        | 5                  | -20~75<br>-40~85 | PRQP0100KB-A                 | 空调、冰箱、洗衣机、打印机、传真机、复印机、工业设备、机床、汽车引擎、动力转向系统   |   |         |        |        |        |        |

注：  
①SH-2系列芯片的ROM类型为：F(Flash memory)、L(RoMless)、O(One time PROM)。

| 系列         | 型号                                      | 存储器                     |   |                                    | 最高工作频率/工作电压    | 最小指令执行时间 | 乘数器 | DMA  |  | 外部总线扩展   |              |           | I/O 端口 | 时钟     |           |            | 电压检测 |     | AD 转换器 | DA 转换器 | 定时器位数 |       |                  | 定时器功能  |       |        | 串行接口②            |        |         |      | 工作温度范围(°C) | 封装(mm) | 应用领域 |       |         |                  |  |                  |        |                           |
|------------|---|-------------------------|---|------------------------------------|----------------|----------|-----|--|--|----------|--------------|-----------|--------|--------|-----------|------------|------|-----|--------|--------|-------|-------|------------------|--------|-------|--------|------------------|--------|---------|------|------------|--------|------|-------|---------|------------------|--|------------------|--------|---------------------------|
|            |   | DMA0(channels)          | DT/DMACII   | 地址空间                               |                |          |     | SRAM 控制器                                     | PC 控制器   | Endian 版 | PLL          | 内部振荡器(Hz) |        | 振荡停止检测 | 上电复位(POR) | 低电压检测(LVD) | 8位   | 16位 |        |        | 32位   | 输出捕捉  | 输入捕捉             | PWM 输出 | 事件计数器 | 二相编码输入 | 三相变频控制           | 看门狗定时器 | 时钟同步/异步 | 串行接口 |            |        |      | IC 总线 | SU 特殊串口 | 外部中断引脚数          |  |                  |        |                           |
| SH7780     | R8A77220AC266BAV                        | 148K                    | L   | 266MHz/1.2V(内部)<br>3.3V(I/O)       | 1.5ns@333.4MHz | 32x32~64 | 6   | -  | 384M   | 0        | 0            | 123       | 0      | -      | -         | -          | -    | -   | -      | -      | -     | 4     | 3(TMU)<br>1(CMT) | -      | 1     | 1      | -                | -      | 0       | 3    | 1          | 1      | 4    | 9     | -20~70  | PLBG0417KB-A     | 游戏机、<br>家用数字<br>电子产品、<br>网络控制系统、<br>汽车导航系统、<br>工业设备等 |                  |        |                           |
|            | R8A77220AC266BGV                        |                         |   | 333MHz/1.3V(内部)<br>3.3V(I/O)       |                |          | 6   | -  |  | 123      | 0            | -         | -      | -      | -         | -          | -    | -   | -      | -      | -     | -     | -                | -      | -     | 4      | 3(TMU)<br>1(CMT) | -      | 1       | 1    | -          | -      | 0    | 3     | 1       | 1                |  | 4                | 9      | -20~85                    |
|            | R8A77230C400BG                          | 16K                     | L   | 400MHz/1.2V(内部)<br>3.3V(I/O)       | 1.25ns@400MHz  | 32x32~64 | 12  | -  | 768M   | 0        | 0            | 168       | 0      | -      | -         | -          | -    | -   | -      | -      | -     | 4     | 6(TMU)<br>1(CMT) | -      | 1     | 1      | -                | -      | 0       | 6    | -          | 1      | 2    | 9     | -20~70  | PRBG0449GA-A     |  |                  |        |                           |
|            | R8A77230D400BG                          |                         |   | 2.5V(DDR)                          |                |          | 12  | -  |  | 168      | 0            | -         | -      | -      | -         | -          | -    | -   | -      | -      | -     | -     | -                | -      | -     | 4      | 6(TMU)<br>1(CMT) | -      | 1       | 1    | -          | -      | 0    | 6     | -       | 1                |  | 2                | 9      | -40~85                    |
|            | R8A77240D500BG                          | 16K                     | L   | 500MHz/1.2V(内部)<br>3.3V(I/O)       | 1.00ns@500MHz  | 32x32~64 | 12  | -  | 768M   | 0        | 0            | 170       | 0      | -      | -         | -          | -    | -   | -      | -      | -     | 4     | 6(TMU)<br>1(CMT) | 2      | 4     | 4      | -                | -      | -       | 0    | 6          | -      | 1    | 2     | 9       | -20~70           |  | PRBG0449GA-A     |        |                           |
|            | R8A77240B500BB                          |                         |   | 1.8V(DDR)                          |                |          | 12  | -  |  | 170      | 0            | -         | -      | -      | -         | -          | -    | -   | -      | -      | -     | -     | -                | -      | -     | 4      | 6(TMU)<br>1(CMT) | 2      | 4       | 4    | -          | -      | -    | 0     | 6       | -                |  | 1                | 2      | 9                         |
|            | R8A77300C200FPV                         | 16K(高速)                 | L   | 200MHz/1.2V(内部)<br>3.3V(I/O)       | 2.5ns@200MHz   | 32x32~64 | 6   | -  | 384M   | 0        | 0            | 107       | 0      | -      | -         | -          | -    | -   | -      | -      | -     | 6     | 8                | -      | 6     | 6      | -                | -      | -       | 0    | 6          | 1      | 2    | -     | 21      | -20~75           |  | PLQP0208KB-A     |        |                           |
|            | R8A77301C200FPV                         |                         |   | 266MHz/1.2V(内部)<br>3.3V(I/O)       |                |          | 6   | -  |  | 107      | 0            | -         | -      | -      | -         | -          | -    | -   | -      | -      | -     | -     | -                | -      | -     | 6      | 8                | -      | 6       | 6    | -          | -      | -    | 0     | 6       |                  |  |                  | 1      | 2                         |
|            | R8A77301C266FPV                         | 16K(高速)                 | L   | 200MHz/1.2V(内部)<br>3.3V(I/O)       | 2.5ns@200MHz   | 32x32~64 | 6   | -  | 384M   | 0        | 0            | 107       | 0      | -      | -         | -          | -    | -   | -      | -      | -     | 10位x4 | 10位x2            | -      | 6     | 8      | -                | 6      | 6       | -    | -          | 0      | 6    | 1     | 2       | -                |  | 21               | -40~85 | PLQP0208KB-A              |
|            | R8A77301D200FPV                         |                         |   | 266MHz/1.2V(内部)<br>3.3V(I/O)       |                |          | 6   | -  |  | 107      | 0            | -         | -      | -      | -         | -          | -    | -   | -      | -      | -     | -     | -                | -      | -     | 10位x4  | 10位x2            | -      | 6       | 8    | -          | 6      | 6    | -     | -       | 0                |  | 6                |        |                           |
|            | R8A77301D266FPV                         | 148K                    | L   | 266MHz/1.2V(内部)<br>3.3V(I/O)       | 1.88ns@266MHz  | 32x32~64 | 6   | -  | 384M   | 0        | 0            | 107       | 0      | -      | -         | -          | -    | -   | -      | -      | -     | 10位x4 | 10位x2            | -      | 6     | 8      | -                | 6      | 6       | -    | -          | 0      | 6    | 1     | 2       | -                |  | 21               | -40~85 | PLQP0208KB-A              |
|            | R8A77310D333BG                          |                         |   | 333MHz/1.3V(internal)<br>3.3V(I/O) |                |          | 6   | -  |  | 149      | 0            | -         | -      | -      | -         | -          | -    | -   | -      | -      | -     | -     | -                | -      | -     | 10位x4  | 10位x2            | -      | 6       | 8    | -          | 6      | 6    | -     | -       | 0                |  | 6                |        |                           |
|            | R8A77310C333BA                          | 148K                    | L   | 266MHz/1.2V(internal)<br>3.3V(I/O) | 1.5ns@333MHz   | 32x32~64 | 6   | -  | 384M   | 0        | 0            | 149       | 0      | -      | -         | -          | -    | -   | -      | -      | -     | 10位x4 | 10位x2            | -      | 6     | 8      | -                | 6      | 6       | -    | -          | 0      | 6    | 1     | 2       | -                |  | 21               | -40~85 | PRBG0449GA-A<br>(BP-449V) |
|            | R8A77310C333BA                          |                         |   | 3.3V(I/O)                          |                |          | 6   | -  |  | 149      | 0            | -         | -      | -      | -         | -          | -    | -   | -      | -      | -     | -     | -                | -      | -     | 10位x4  | 10位x2            | -      | 6       | 8    | -          | 6      | 6    | -     | -       | 0                |  | 6                |        |                           |
|            | R5S77630AY266BGV                        | 16K                     | L   | 266MHz/1.25V(内部)<br>3.3V(I/O)      | 1.9ns@266MHz   | 32x32~64 | 6   | -  | 局部:448M、<br>DDR:256M、<br>PCI:512M+<br>内存/I/O区域               | 0        | 0            | 111       | 0      | -      | -         | -          | -    | -   | -      | -      | -     | 10位x4 | 8位x2             | -      | 4     | 6      | 2                | -      | -       | -    | -          | 0      | 3    | -     | 2       | 3                |  | 9                | -20~75 | BP-449                    |
|            | R5S77631AY266BGV                        |                         |   | 2.5V(DDR)                          |                |          | 6   | -  | 局部:448M、<br>DDR:256M、<br>PCI:512M+<br>内存/I/O区域               | 0        | 0            | 111       | 0      | -      | -         | -          | -    | -   | -      | -      | -     | -     | -                | -      | 10位x4 | 8位x2   | -                | 4      | 6       | 2    | -          | -      | -    | -     | 0       | 3                |  | -                | 2      |                           |
|            | R5S77632AY266BGV                        | 16K                     | L   | 324MHz/1.2V(内部)<br>3.3V(I/O)       | 1.5ns@324MHz   | 32x32~64 | 6   | -  | 局部:448M、<br>DDR:256M、<br>PCI:512M+<br>内存/I/O区域               | 0        | 0            | 111       | 0      | -      | -         | -          | -    | -   | -      | -      | -     | 10位x4 | 8位x2             | -      | 4     | 6      | 2                | -      | -       | -    | -          | 0      | 3    | -     | 2       | 3                |  | 9                | -20~85 | PRBG0404GA-A              |
|            | R5S77640N300BG                          |                         |   | 256M                               |                |          | 6   | -  | 256M   | 0        | -            | -         | -      | -      | -         | -          | -    | -   | -      | -      | -     | -     | -                | -      | 10位x4 | 8位x2   | -                | 4      | 6       | 1    | -          | -      | -    | -     | 0       | 3                |  | -                |        |                           |
|            | R5S77640P300BG                          | 16K(高速)<br>+<br>32K(中速) | L   | 400MHz/1.25V(内部)<br>3.3V(I/O)      | 1.25ns@400MHz  | 32x32~64 | 12  | -  | 局部:384M、<br>DDR:256M、<br>PCI:512M+<br>内存/I/O区域               | 0        | 0            | 83        | 0      | -      | -         | -          | -    | -   | -      | -      | -     | 10位x4 | 8位x2             | -      | 4     | 6      | 1                | -      | -       | -    | -          | 0      | 2    | -     | -       | 9                |  | -20~85<br>-40~85 | BP-449 |                           |
|            | R8A77800B                               |                         |   | 2.5V(DDR)                          |                |          | 12  | -  | 局部:100MHz(最大)、<br>DDR-SDRAM:<br>160MHz(最大)、<br>PCI: 33/66MHz | 0        | 0            | 75        | 0      | -      | -         | -          | -    | -   | -      | -      | -     | -     | -                | -      | 10位x4 | 8位x2   | -                | 4      | 6       | 1    | -          | -      | -    | -     | 0       | 2                |  | -                |        | -                         |
| R8A77810B  | 8K(高速)<br>+<br>16K(高速)<br>+<br>128K(中速) | L                       | 600MHz/1.1V(内部)<br>3.3V(I/O)                              | 0.85ns@600MHz                      | 32x32~64       | 12       | -   | 局部:448M、<br>DDR:1G、<br>PCI:512M+<br>内存/I/O区域 | 0  | 0        | 108<br>(MAX) | 0         | -      | -      | -         | -          | -    | -   | -      | -      | 10位x4 | 8位x2  | -                | -      | 6     | 1      | -                | -      | -       | -    | 0          | 6      | -    | -     | 9       | -20~85<br>-40~85 | PRBG0436GA-A   |                  |        |                           |
| R8A77850BA |   |                         | 1.8V(DDR)   |                                    |                | 12       | -   | 局部:448M(最大)、<br>DDR3 :<br>2G(最大)             | 0  | 0        | 60<br>(MAX)  | 0         | -      | -      | -         | -          | -    | -   | -      | -      | -     | -     | -                | 10位x4  | 8位x2  | -      | -                | 12     | 1       | -    | -          | -      | -    | 0     | 6       | -                |  | 2                | -      | 9                         |
| R8A77860   | (8K+16K)<br>x2                          | L                       | 533MHz/<br>1.25V(内部)<br>3.3V(I/O etc.)<br>1.5V(DDR3 etc.) | 0.94ns@533MHz                      | 32x32~64       | 24       | -   | 局部:448M(最大)、<br>DDR3 :<br>2G(最大)             | 0  | 0        | 60<br>(MAX)  | 0         | -      | -      | -         | -          | -    | -   | -      | -      | 10位x4 | 8位x2  | -                | -      | 12    | 1      | -                | -      | -       | -    | 0          | 6      | -    | 2     | -       | 9                | BGA593   |                  |        |                           |

注:  
① SH-4A系列芯片的ROM类型为L(ROMless)。

SuperH RISC engine族开发工具

| 系列     | 群   | 介绍性工具           |  | 硬件工具   |                |                        |   |                   |                | 软件工具   |                                    |          |
|--------|---|-----------------|--|--|----------------|------------------------|---|-------------------|----------------|--|------------------------------------|----------|
|        |   | Starter Kit     | On-chip调试器                                   | 全功能仿真器(In-circuit Emulator)  |                |                        |   |                   |                | C编译器   | 集成开发环境                             | 实时OS     |
|        |   |                 |  | E10A-USB   |                | E200F                  |   |                   |                |  |                                    |          |
|        |   |                 |  | E10A-USB   | MCU调试板(可选)     | 仿真器                    | 评估芯片单元  | 用户系统接口板           | 外部总线跟踪单元       |  |                                    |          |
| SH71xy | SH7124  | R0K571242S001BE | HS0005KCU01H (无AUD功能)/ HS0005KCU02H (有AUD功能) | HS7124EDB01H (PLQP0048JA-A (FP-48FV)) 或者 HS7124EDB02H(PVQN0052LE-A)  | R0E0200F1EMU00 | "R0E570800VKK00 *2 *4" | R0E571240CFJ00 *3 (PLQP0048JA-A *Previous code : FP-48FV)   | -                 | R0E0200F0EPU00 | C/C++ Compiler Package for SuperH Family (MISRA C可选) | High-performance Embedded Workshop | HI7000/4 |
|        | HS7125EDB01H (PLQP0064KB-A (FP-64KV)) 或者HS7125EDB02H (PRQP0064GB-A (FP-64AV)) or (PRQP0064GC-A (FP-64HA)) 或者 HS7125EDB03H (PVQN0064LB-A (TNP-64BV)) |                 |  | R0E571250CFK00 *3 (PLQP0064KB-A *Previous code : FP-64KV) or R0E571250CFG00 *3 (PRQP0064GC-A *Previous code : FP-64HV [PRQP0064GB-A *Previous code : FP-64AV]) |                |                        |   |                   |                |  |                                    |          |
| SH7010 | SH7011  | -               | HS7047KCU01SR                                | -  | -              | -                      | -   | -                 | -              | C/C++ Compiler Package for SuperH Family (MISRA C可选) | High-performance Embedded Workshop | HI7000/4 |
|        | SH7014  |                 |  |  |                |                        |   |                   |                |  |                                    |          |
|        | SH7016  |                 |  |  |                |                        |   |                   |                |  |                                    |          |
|        | SH7017  |                 |  |  |                |                        |   |                   |                |  |                                    |          |
| SH7040 | SH7040  | -               | HS7047KCU01SR                                | -  | -              | -                      | -   | -                 | -              | C/C++ Compiler Package for SuperH Family (MISRA C可选) | High-performance Embedded Workshop | HI7000/4 |
|        | SH7041  |                 |  |  |                |                        |   |                   |                |  |                                    |          |
|        | SH7042  |                 |  |  |                |                        |   |                   |                |  |                                    |          |
|        | SH7043  |                 |  |  |                |                        |   |                   |                |  |                                    |          |
|        | SH7044  |                 |  |  |                |                        |   |                   |                |  |                                    |          |
| SH7045 |   |                 |  |  |                |                        |   |                   |                |  |                                    |          |
| SH7144 | SH7011  | -               | HS7047KCU01SR                                | -  | -              | -                      | -   | -                 | -              | C/C++ Compiler Package for SuperH Family (MISRA C可选) | High-performance Embedded Workshop | HI7000/4 |
|        | SH7014  |                 |  |  |                |                        |   |                   |                |  |                                    |          |
| SH7080 | SH7083  | R0K570865S001BE | HS7047KCU01SR                                | -  | R0E0200F1EMU00 | R0E570800VKK00 *2 *4   | R0E570830CFK00 *3 (PTQP0100KA-A *Previous code : TFP-100BV) | R0E0200F1ETU00 *7 | R0E0200F0EPU00 | C/C++ Compiler Package for SuperH Family (MISRA C可选) | High-performance Embedded Workshop | HI7000/4 |
|        | SH7084  |                 |  |  |                |                        | R0E570840CFJ00 *3 (PLQP0112JA-A *Previous code : FP-112EV)  |                   |                |  |                                    |          |
|        | SH7085  |                 |  |  |                |                        | R0E570850CFK00 *3 (PLQP0144KA-A *Previous code : FP-144LV)  |                   |                |  |                                    |          |
|        | SH7086  |                 |  |  |                |                        | R0E570860CFK00 *3 (PLQP0176KB-A *Previous code : FP-176EV)  |                   |                |  |                                    |          |
| SH7047 | SH7047  | -               | HS7047KCU01SR                                | -  | -              | -                      | -   | -                 | -              | C/C++ Compiler Package for SuperH Family (MISRA C可选) | High-performance Embedded Workshop | HI7000/4 |
|        | SH7049  |                 |  |  |                |                        |   |                   |                |  |                                    |          |
|        | SH7105  |                 |  |  |                |                        |   |                   |                |  |                                    |          |
|        | SH7107  |                 |  |  |                |                        |   |                   |                |  |                                    |          |
| SH7109 |   |                 |  |  |                |                        |   |                   |                |  |                                    |          |
| SH7147 | SH7147  | -               | HS7047KCU01SR                                | HS7147EDB01H (PLQP0100KB-A (FP-100UV))   | R0E0200F1EMU00 | R0E571470VKK00 *2 *4   | R0E571470CFK00 *3 (PLQP0100KB-A *Previous code : FP-100UV)  | R0E0200F1ETU00 *7 | R0E0200F0EPU00 | C/C++ Compiler Package for SuperH Family (MISRA C可选) | High-performance Embedded Workshop | HI7000/4 |
| SH7137 | SH7136  | R0K571374S000BE | HS7047KCU01SR                                | -  | R0E0200F1EMU00 | R0E571470VKK00 *2*4    | R0E571360CFJ00 *3 (PLQP0080JA-A *Previous code : FP-80WV)   | -                 | R0E0200F0EPU00 | C/C++ Compiler Package for SuperH Family (MISRA C可选) | High-performance Embedded Workshop | HI7000/4 |
|        | SH7137  |                 |  |  |                |                        | R0E571370CFK00 *3 (PLQP0100KB-A *Previous code : FP-100UV)  |                   |                |  |                                    |          |

SuperH RISC engine族开发工具

| 系列      | 群      | 介绍性工具                                 |               | 硬件工具       |                             |                     |   |                   |                   | 软件工具   |  |                                    |          |                |                     |   |                   |                |
|---------|--------|---------------------------------------|---------------|------------|-----------------------------|---------------------|---|-------------------|-------------------|--|--|------------------------------------|----------|----------------|---------------------|---|-------------------|----------------|
|         |        | Starter Kit                           | On-chip调试器    |            | 全功能仿真器(In-circuit Emulator) |                     |   |                   |                   |  | C编译器   | 集成开发环境                             | 实时OS     |                |                     |   |                   |                |
|         |        |                                       | E10A-USB      |            | E200F                       |                     |   |                   |                   |  |  |                                    |          |                |                     |   |                   |                |
|         |        |                                       | E10A-USB      | MCU调试板(可选) | 仿真器                         | 评估芯片单元              | 用户系统接口板   | 外部总线跟踪单元          | 延展单元              |  |  |                                    |          |                |                     |   |                   |                |
| SH-7046 | SH7046 | -                                     | HS7047KCU01SR | -          | -                           | -                   | -   | -                 | -                 | -  | C/C++ Compiler Package for SuperH Family (MISRA C可选) | High-performance Embedded Workshop | HI7000/4 |                |                     |   |                   |                |
|         | SH7148 |                                       |               |            |                             |                     |   |                   |                   |  |  |                                    |          |                |                     |   |                   |                |
|         | SH7101 |                                       |               |            |                             |                     |   |                   |                   |  |  |                                    |          |                |                     |   |                   |                |
|         | SH7048 |                                       |               |            |                             |                     |   |                   |                   |  |  |                                    |          |                |                     |   |                   |                |
|         | SH7104 |                                       |               |            |                             |                     |   |                   |                   |  |  |                                    |          |                |                     |   |                   |                |
|         | SH7106 |                                       |               |            |                             |                     |   |                   |                   |  |  |                                    |          |                |                     |   |                   |                |
| SH7108  |        |                                       |               |            |                             |                     |   |                   |                   |  |  |                                    |          |                |                     |   |                   |                |
| SH-7146 | SH7146 | -                                     | HS7047KCU01SR | -          | R0E0200F1EMU00              | R0E570800VKK00 *2*4 | R0E571460CFJ00 *3 (PLQP0080JA-A *Previous code : FP-80WW)   | -                 | R0E0200F1ETU00 *7 | R0E0200F0EPU00                                       | C/C++ Compiler Package for SuperH Family (MISRA C可选) | High-performance Embedded Workshop | HI7000/4 |                |                     |   |                   |                |
|         | SH7149 |                                       |               |            |                             |                     | R0E571490CFJ00 *3 (PRQP0100JE-B *Previous code : FP-100AV) or R0E571490CFK00 *3 (PLQP0100KB-A *Previous code : FP-100UV)  |                   |                   |  |  |                                    |          |                |                     |   |                   |                |
| SH-7606 | SH7606 | -                                     | HS7047KCU01SR | -          | -                           | -                   | -   | -                 | -                 | -  | C/C++ Compiler Package for SuperH Family (MISRA C可选) | High-performance Embedded Workshop | HI7000/4 |                |                     |   |                   |                |
| SH-7260 | SH7261 | -                                     | HS7206KCU01SR | -          | -                           | -                   | -   | -                 | -                 | -  | C/C++ Compiler Package for SuperH Family (MISRA C可选) | High-performance Embedded Workshop | HI7000/4 |                |                     |   |                   |                |
|         | SH7262 | R0K572643S000BE (with Linux CD)       |               |            |                             |                     |   |                   |                   |  |  |                                    |          |                |                     |   |                   |                |
|         | SH7264 | YR0K572643S000BE-L (without Linux CD) |               |            |                             |                     |   |                   |                   |  |  |                                    |          |                |                     |   |                   |                |
|         | SH7263 | -                                     |               |            |                             |                     |   |                   |                   |  |  |                                    |          | R0E0200F1EMU00 | -                   | -   | R0E0200F1ETU00 *2 | R0E0200F0EPU00 |
|         | SH7265 | -                                     |               |            |                             |                     |   |                   |                   |  |  |                                    |          | -              | -                   | -   | -                 | -              |
| SH-7200 | SH7201 | R0K572011S001BE                       | HS7206KCU01SR | -          | -                           | -                   | -   | -                 | -                 | -  | C/C++ Compiler Package for SuperH Family (MISRA C可选) | High-performance Embedded Workshop | HI7000/4 |                |                     |   |                   |                |
|         | SH7203 | R0K572030S000BE                       |               |            |                             |                     |   |                   |                   |  |  |                                    |          | R0E0200F1EMU00 | -                   | -   | R0E0200F1ETU00    | R0E0200F0EPU00 |
|         | SH7205 | -                                     |               |            |                             |                     |   |                   |                   |  |  |                                    |          | -              | -                   | -   | -                 | -              |
|         | SH7206 | -                                     |               |            |                             |                     |   |                   |                   |  |  |                                    |          | R0E0200F1EMU00 | R0E572060VKK00 *2*4 | R0E572060CFK00 *3 (PLQP0176KD-A *Previous code : FP-176C) | R0E0200F1ETU00 *2 | R0E0200F0EPU00 |
| SH-7210 | SH7211 | R0K572115S001BE                       | HS7206KCU01SR | -          | R0E0200F1EMU00              | R0E572110VKK00 *2*4 | R0E572110CFK00 *3 (PLQP0144KA-A *Previous code : FP-144LV)  | R0E0200F1ETU00 *2 | R0E0200F0EPU00    | C/C++ Compiler Package for SuperH Family (MISRA C可选) | High-performance Embedded Workshop                   | HI7000/4                           |          |                |                     |   |                   |                |
| SH-7280 | SH7285 | R0K572867S000BE                       | HS7206KCU01SR | -          | R0E0200F1EMU00              | R0E572800VKK00 *2*4 | R0E572850CFK00 *3 (PLQP0144KA-A *Previous code : FP-144LV)  | R0E0200F1ETU00 *7 | R0E0200F0EPU00    | C/C++ Compiler Package for SuperH Family (MISRA C可选) | High-performance Embedded Workshop                   | HI7000/4                           |          |                |                     |   |                   |                |
|         | SH7286 |                                       |               |            |                             |                     | *R0E572860CFK00 *3 (PLQP0176KB-A *Previous code : FP-176EV) or R0E572860CFL00 *3 (PLQP0176LB-A *Previous code : FP-176AV) |                   |                   |  |  |                                    |          |                |                     |   |                   |                |
| SH-7243 | SH7243 | R0K572867S000BE                       | HS7206KCU01SR | -          | R0E0200F1EMU00              | R0E572800VKK00 *2*4 | R0E572430CFK00 *3 (PLQP0100KB-A *Previous code : FP-100UV)  | R0E0200F1ETU00 *2 | R0E0200F0EPU00    | C/C++ Compiler Package for SuperH Family (MISRA C可选) | High-performance Embedded Workshop                   | HI7000/4                           |          |                |                     |   |                   |                |

SuperH RISC engine族开发工具

| 系列      | 群       | 介绍性工具       |               | 硬件工具  |                             |        |         |          |      | 软件工具           |  |                                    |                       |   |
|---------|---------|-------------|---------------|---|-----------------------------|--------|---------|----------|------|----------------|--|------------------------------------|-----------------------|---|
|         |         | Starter Kit | On-chip调试器    |   | 全功能仿真器(In-circuit Emulator) |        |         |          |      |                | C编译器   | 集成开发环境                             | 实时OS                  |   |
|         |         |             | E10A-USB      |   | E200F                       |        |         |          |      |                |  |                                    |                       |   |
|         |         |             | E10A-USB      | MCU调试板(可选)  | 仿真器                         | 评估芯片单元 | 用户系统接口板 | 外部总线跟踪单元 | 延展单元 |                |  |                                    |                       |   |
| SH-7450 | SH74504 | -           | HS7780KCU01SR | R0E574504PBZ00<br>+<br>R0E574504CBF10<br>[User's I/F converter board] |                             | -      | -       | -        | -    | -              | C/C++ Compiler Package for SuperH Family (MISRA C可选) | High-performance Embedded Workshop | HI7750/4 or HI7300/PX |   |
|         | SG74513 |             |               |   |                             |        |         |          |      |                |  |                                    |                       |   |
| SH-7780 | SH7722  | -           | HS7780KCU01SR | -   | R0E0200F2EMU00              | -      | -       | -        | -    | R0E0200F0EPU00 | C/C++ Compiler Package for SuperH Family (MISRA C可选) | High-performance Embedded Workshop | HI7750/4 or HI7300/PX |   |
|         | SH7723  |             |               |   | -                           |        |         |          |      | -              |  |                                    |                       | - |
|         | SH7730  |             |               |   | -                           |        |         |          |      | -              |  |                                    |                       | - |
|         | SH7763  |             |               |   | -                           |        |         |          |      | -              |  |                                    |                       | - |
|         | SH7764  |             |               |   | -                           |        |         |          |      | -              |  |                                    |                       | - |
|         | SH7780  |             |               |   | -                           |        |         |          |      | -              |  |                                    |                       | - |
|         | SH7781  |             |               |   | R0E0200F2EMU00              |        |         |          |      | R0E0200F0EPU00 |  |                                    |                       |   |
| SH7785  | -       | -           |               |   |                             |        |         |          |      |                |  |                                    |                       |   |
| SH7786  | -       | -           |               |   |                             |        |         |          |      |                |  |                                    |                       |   |

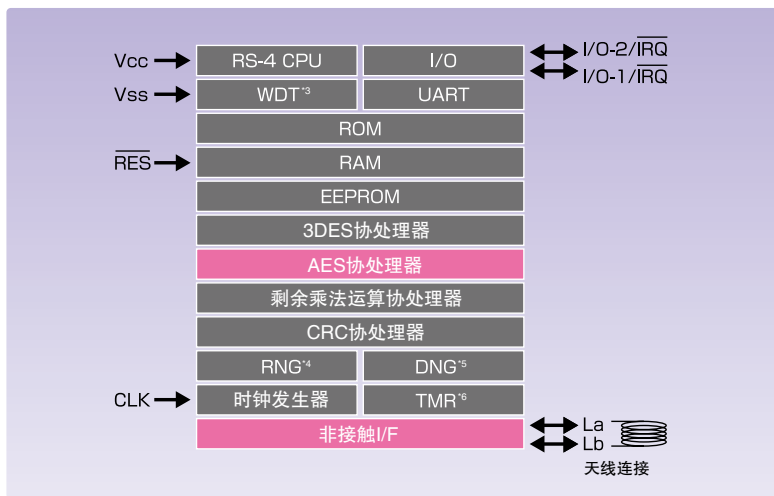
## ■ RS-4产品特点

- 实现处理性能提高到约公司原有16位产品的5倍
- 支持ISO14443-A/B、FeliCa™<sup>1</sup>的非接触通信
- 支持非接触通信技术MIFARE Plus™<sup>2</sup>
- 集成最新安全技术, 并以取得通用标准(ISO/IEC15408)EAL5+为目标进行设计

## ■ RS-4产品特性

- 高速·低功耗CPU  
内置16位「RS-4」内核
- 高可靠性EEPROM  
擦写时间: 2.0ms(Typ.)  
擦写次数: 50万次  
数据保存: 10年
- 高速加密处理  
支持RSA加密的剩余乘法运算处理器  
支持3DES加密的协处理器  
支持AES加密的协处理器
- 支持非接触接口  
ISO14443-A & B  
ISO14443-B & FeliCa™<sup>1</sup>
- 高安全性  
计划取得通用标准EAL5+
- 加密运算库  
支持RSA·RSA密钥生成·DES·AES·Hash  
计划取得通用标准EAL5+

## ■ RS-4产品框图



\*1 FeliCa™是Sony株式会社の注册商标 \*3 WDT: 看门狗定时器 \*5 DNG: 数字发生器  
\*2 MIFARE Plus™是NXP B.V.的注册商标。 \*4 RNG: 随机数发生器 \*6 TMR: 间隔定时器

■ : 标准功能 ■ : 双界面I/F产品追加功能

| 产品名      | EEPROM | ROM   | RAM   | 加密协处理器         | 通信 I/F                          |
|----------|--------|-------|-------|----------------|---------------------------------|
| RS44C ★  | 18KB   | 192KB | 6KB   | 3DES, RSA      | ISO7816                         |
| RS45C ★  | 36KB   | 224KB | 8KB   | 3DES, RSA      | ISO7816                         |
| RS44X ★★ | 18KB   | 288KB | 8.5KB | 3DES, AES, RSA | ISO7816, 14443-A/B, FeliCa™ I/F |
| RS45X ★★ | 36KB   | 288KB | 8.5KB | 3DES, AES, RSA | ISO7816, 14443-A/B, FeliCa™ I/F |
| RS46X ★★ | 72KB   | 352KB | 8.5KB | 3DES, AES, RSA | ISO7816, 14443-A/B, FeliCa™ I/F |

★★: 开发中 ★: 新产品

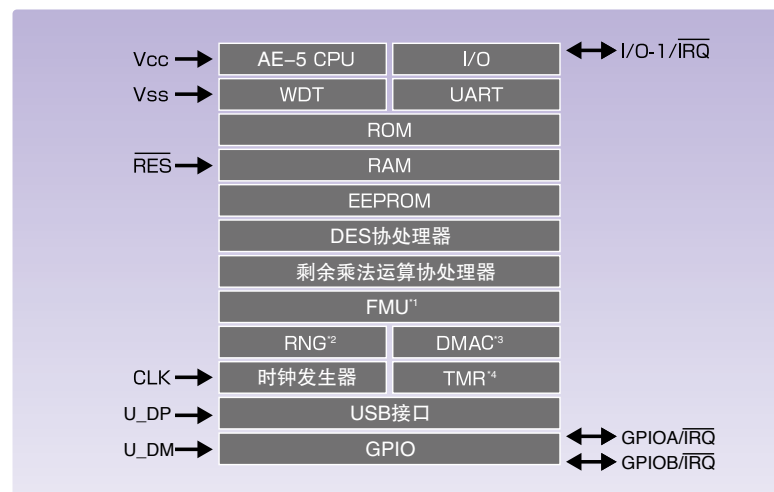
## ■ AE56U产品特点

- 在安全MCU上内置USB控制器, 有助于实现系统小型化
- 通过内置通用I/O端口, 实现对外围功能的高度扩展
- 支持USB2.0(全速), 实现12Mbps的高速数据传输
- 符合ETSI TS 102 600的USB接口规格

## ■ AE56U产品特性

- 高速·低功耗CPU  
内置32位「AE-5」内核
- 高可靠性EEPROM  
擦写时间: 2.2ms(max.)  
擦写次数: 10万次  
数据保存: 10年
- 高速加密处理  
支持RSA加密的剩余乘法运算协处理器  
支持DES加密的协处理器
- 接口
  - ISO/IEC7816-3
  - USB2.0: 支持全速(12Mbps)  
符合ETSI TS 102 600 V7.0.0
  - GPIO端口: 16个(8 I/O x 2组)  
支持高速SPI通信  
支持LED连接的大电流端口: 2个
- 高安全性  
集成防篡改·安全功能
- 加密运算库  
支持RSA·RSA密钥生成·DES·Hash
- USB驱动器  
支持HID/CCID级别

## ■ AE56U产品框图



\*1 F M U: 防火墙管理单元

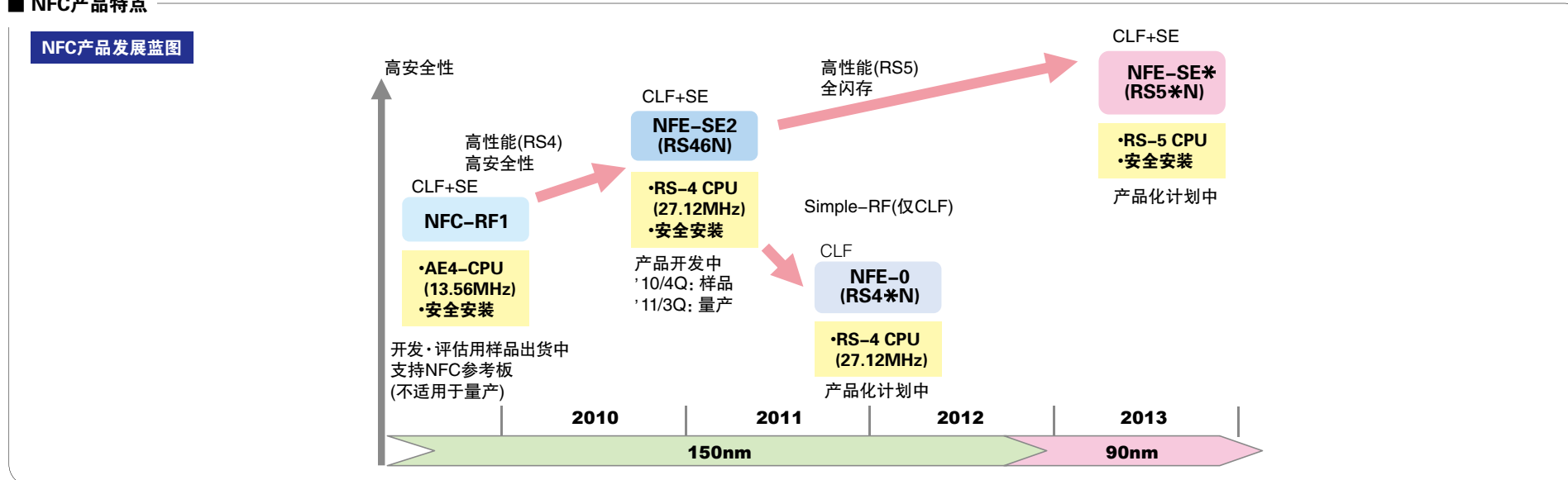
\*2 R N G: 随机数发生器

\*3 D M A C: 直接存储器存取控制器

\*4 T M R: 间隔定时器

| 产品名   | EEPROM | ROM   | RAM | 加密协处理器   | 通信 I/F                          |
|-------|--------|-------|-----|----------|---------------------------------|
| AE56U | 72KB   | 224KB | 6KB | DES, RSA | ISO7816, USB 2.0全速, GPIO(支持SPI) |

## ■ NFC产品特点



## ■ NFC产品特点

### NFE-SE2(RS46N)

- ★ 读/写器模式**
  - 可自动检测NFC的所有类型
- ★ 卡片模式**
  - 内置了安全元件(SE), 无需外置SE
  - 集成了可支持SIM卡及SD卡等外置的接口功能
- ★ P2P模式**
  - 高性能16位CPU
  - 可高速处理数据的收发

NFE-SE2框图

#### NFE-SE2规格

|         | NFE-SE2 (RS46N)                                |
|---------|--|
| CPU     | RS4(27.12MHz)<br>16bit/1周期存取                   |
| ROM/RAM | 224KB/8KB                                      |
| EEPROM  | 64KB   |
| RF      | TYPE A/B/FeliCa,<br>ISO15693(R/W模式)            |
| 协处理器    | RSA(2624)/AES/3DES                             |
| RNG/CRC | 有  |
| I/F     | SCI(UART)、SSU(SPI)<br>I <sup>2</sup> C、SWP(主机) |
| 定时器     | WDT(1ch)/定时器(4ch)                              |
| 封装      | 标准产品BGA (5mm□)                                 |
| 电源      | 2.7~3.3V, 支持无电池系统                              |



## 瑞萨面向嵌入式应用的安全MCU N212(R5H30212)系列



### ■ N212(R5H30212)产品特点

- 内置了I<sup>2</sup>C, SPI总线接口, 可嵌入各种设备中
- 小型封装(4mm × 4mm × 0.65mm)

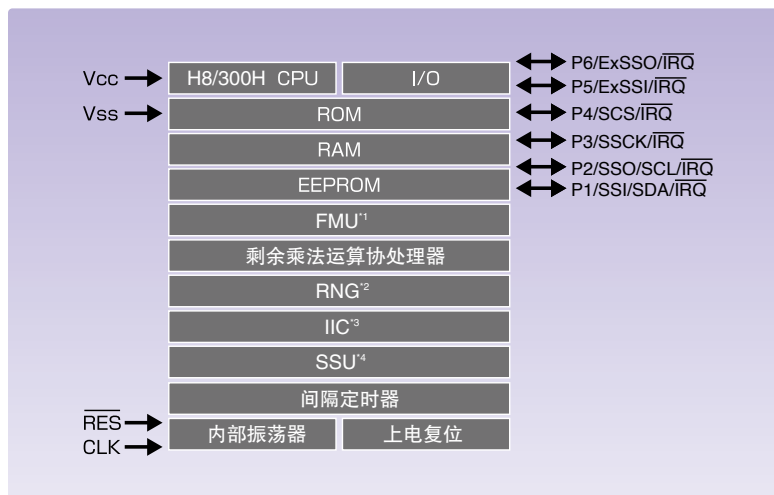
### ■ 可支持TPM功能(符合Version1.2命令)

TPM(TrustedPlatform Module)是符合TCG(TrustedComputing Group)规范的安全IC。应用于以PC为中心, 复印机、服务器、存储器、手机等广泛领域。

### ■ N212(R5H30212)产品特性

- 高速·低功耗CPU  
内置16位「H8/300H」内核
- 高可靠性EEPROM  
擦写时间: 3.0ms(max.)  
擦写次数: 10万次  
数据保存: 10年
- 高速加密处理  
支持RSA加密的剩余乘法运算协处理器
- 接口  
IIC、SSU(SPI)、I/O端口6个
- 高安全性  
集成防篡改·安全功能
- 工作温度范围  
-25°C ~ +85°C
- 封装  
QFN-20(4.0mm × 4.0mm × 0.65mm)
- 加密运算库  
支持RSA·RSA密钥生成·DES·AES·Hash

### ■ N212(R5H30212)产品框图



- \*1 FMU: 防火墙管理单元
- \*2 RNG: 随机数发生器
- \*3 IIC : I<sup>2</sup>C总线接口
- \*4 SSU: 同步串行通信单元

| 产品名  | EEPROM | ROM   | RAM | 加密协处理器     | 通信 I/F        |
|------|--------|-------|-----|------------|---------------|
| N212 | 18KB   | 112KB | 4KB | 剩余乘法运算协处理器 | IIC, SSU(SPI) |

## ■ AE470G产品特点

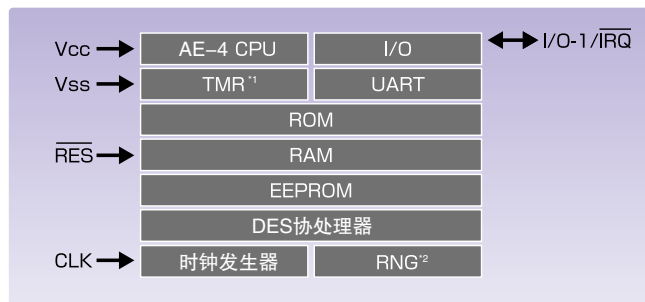
- 实现在M2M上运行所要求的温度范围:  $-40^{\circ}\text{C} \sim 105^{\circ}\text{C}$ (Cyclic Profile)
- 内置高可靠大容量EEPROM  
50万次的擦写, 数据保存:10年(typ.)
- 采用USON8超小型封装, 符合ETSI TS 102 671草案



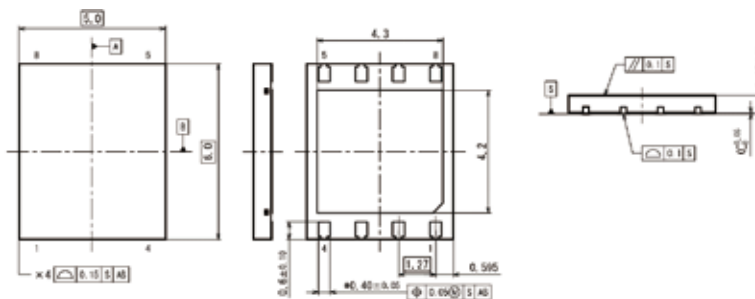
## ■ AE470G产品特性

- 高速·低功耗CPU  
内置16位「AE-4」内核
- 高可靠性EEPROM  
擦写时间: 2.4ms(max.)  
擦写次数: 50万次  
数据保存: 10年
- 高速加密处理  
支持DES加密的协处理器
- 接口  
ISO/IEC7816-3
- 高安全性  
集成防篡改·安全功能
- 工作温度范围  
 $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$   
(Cyclic Profile)
- 超小型封装  
8引脚USON (5.0mm × 6.0mm × 0.65mm)

## ■ AE470G产品框图



\*1 TMR: 间隔定时器  
\*2 RNG: 随机数发生器



| 产品名    | EEPROM | ROM   | RAM | 加密协处理器 | 通信 I/F  |
|--------|--------|-------|-----|--------|---------|
| AE470G | 144KB  | 288KB | 8KB | DES    | ISO7816 |



| 设备    |       |               | 存储器       |       |         | 时钟        | I/O         | 总线        | 定时器              |       |              |        |       | 串行接口  |       |       |        |                   | OCD         | 外围功能     |                |          |        |             | 其他 |       | 应用 |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
|-------|-------|---------------|-----------|-------|---------|-----------|-------------|-----------|------------------|-------|--------------|--------|-------|-------|-------|-------|--------|-------------------|-------------|----------|----------------|----------|--------|-------------|----|-------|----|-----|------|------------------------|---------------|------------|-----------|-----------|----------------------------|----------|---------|--|--|----------------------|--|
| CPU内核 | 商业名称  | 产品名称          | ROM容量(KB) | ROM类型 | 单电Flash | RAM容量(字节) | 最大工作频率(MHz) | 内部振荡器[Hz] | 副振荡器(32.768 KHz) | I/O接口 | 外部总线数据/地址/地址 | 16位定时器 | 8位定时器 | 其他定时器 | 时钟定时器 | 定时计数器 | 带门控定时器 | PWM/SPWM          | UART/RS-485 | UART/CSI | RS-485 LIN-bus | UART/CSI | CSI/IC | 接收功能/CSI/IC | PC | IEBUS |    | CAN | 片上调试 | [segment x common] LCD | 16位 ΔΣ A/D转换器 | 10位 A/D转换器 | 8位 A/D转换器 | 8位 D/A转换器 | [bit x bit/bit + bit] 乘法法器 | 其它功能     | 电源电压[V] | 封装(尺寸 [mm])  | 在线仿真器  |                      |  |
| 78K0  | KD2   | μ PD78F0521A  | 16        | Flash | O       | 768       | 20          | 8 M       | 240K             | O     | 45           | -/     | 1     | 4     | -     | 1     | -      | 16位 x 1<br>8位 x 4 | -           | 1        | -              | -        | -      | -           | 1  | -     | -  | -   | -    | -                      | 8             | -          | -         | -         | -                          | -        | -       | POC, LVI   | 1.8-5.5  | 52-LQFP<br>(10 x 10) |  |
|       |       | μ PD78F0522A  | 24        |       |         | 1024      |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
|       |       | μ PD78F0523A  | 32        |       |         | 2048      |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
|       |       | μ PD78F0524A  | 48        |       |         | 3072      |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
|       |       | μ PD78F0525A  | 60        |       |         | 5120      |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
|       |       | μ PD78F0526A  | 96        |       |         | 7168      |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
|       |       | μ PD78F0527A  | 128       |       |         |           |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
| 78K0  | KE2   | μ PD78F0531A  | 16        | Flash | O       | 768       | 20          | 8 M       | 240K             | O     | 55           | -/     | 1     | 4     | -     | 1     | -      | 16位 x 1<br>8位 x 4 | -           | 1        | -              | -        | -      | -           | -  | -     | -  | -   | -    | 8                      | -             | -          | -         | -         | -                          | POC, LVI | 1.8-5.5 | 64-LQFP(10 x 10)<br>64-LQFP(12 x 12)<br>64-LQFP(14 x 14)<br>64-TQFP(7 x 7)<br>64-FLGA(5 x 5)<br>64-FPBGA (4 x 4) | QB-MINI2<br>(MINICUBE2)<br>QB-78K0KX2<br>(IECUBE)  |                      |  |
|       |       | μ PD78F0532A  | 24        |       |         | 1024      |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
|       |       | μ PD78F0533A  | 32        |       |         | 2048      |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
|       |       | μ PD78F0534A  | 48        |       |         | 3072      |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
|       |       | μ PD78F0535A  | 60        |       |         | 5120      |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
|       |       | μ PD78F0536A  | 96        |       |         | 7168      |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
|       |       | μ PD78F0537A  | 128       |       |         |           |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
| 78K0  | KF2   | μ PD78F0544A  | 48        | Flash | O       | 2048      | 20          | 8 M       | 240K             | O     | 71           | -/     | 2     | 4     | -     | 1     | -      | 16位 x 2<br>8位 x 4 | -           | 1        | -              | -        | -      | -           | 1  | -     | -  | -   | -    | 8                      | -             | -          | -         | -         | -                          | POC, LVI | 1.8-5.5 | 80-LQFP(12 x 12)<br>80-LQFP(14 x 14)   | 通用 (ALL FLASH)                                     |                      |  |
|       |       | μ PD78F0545A  | 60        |       |         | 3072      |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
|       |       | μ PD78F0546A  | 96        |       |         | 5120      |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
|       |       | μ PD78F0547A  | 128       |       |         | 7168      |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
|       |       | μ PD78F0547DA |           |       |         |           |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
| 78K0  | KY2-L | μ PD78F0550   | 4         | Flash | O       | 384       | 10          | 4 M       | 8 M              | 240K  | -            | 12     | -/    | 1     | 2     | -     | -      | 16位 x 1<br>8位 x 1 | -           | 1        | -              | -        | -      | -           | 1  | -     | -  | -   | -    | 4                      | -             | -          | -         | -         | -                          | POC, LVI | 1.8-5.5 | 16-SSOP<br>(5.72)  |  |                      |  |
|       |       | μ PD78F0551   | 8         |       |         | 512       |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
|       |       | μ PD78F0552   | 16        |       |         | 768       |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
|       |       | μ PD78F0555   | 4         |       |         | 384       |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
|       |       | μ PD78F0556   | 8         |       |         | 512       |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
|       |       | μ PD78F0557   | 16        |       |         | 768       |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
| 78K0  | KA2-L | μ PD78F0560   | 4         | Flash | O       | 384       | 10          | 4 M       | 8 M              | 240K  | -            | 16     | -/    | 1     | 2     | -     | -      | 16位 x 1<br>8位 x 1 | -           | 1        | -              | -        | -      | -           | 1  | -     | -  | -   | -    | 6                      | -             | -          | -         | -         | -                          | POC, LVI | 1.8-5.5 | 20-SSOP(7.62)<br>25-LGA (3 x 3)<br>32-WQFN (5 x 5)   | QB-MINI2<br>(MINICUBE2)<br>QB-78K0KX2L<br>(IECUBE) |                      |  |
|       |       | μ PD78F0561   | 8         |       |         | 512       |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
|       |       | μ PD78F0562   | 16        |       |         | 768       |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
|       |       | μ PD78F0565   | 4         |       |         | 384       |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
|       |       | μ PD78F0566   | 8         |       |         | 512       |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
|       |       | μ PD78F0567   | 16        |       |         | 768       |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
| 78K0  | KY2-L | μ PD78F0571   | 8         | Flash | O       | 512       | 10          | 4 M       | 8 M              | 240K  | -            | 24     | -/    | 1     | 4     | -     | -      | 16位 x 1<br>8位 x 4 | -           | 1        | -              | -        | -      | -           | 1  | -     | -  | -   | -    | 7                      | -             | -          | -         | -         | -                          | POC, LVI | 1.8-5.5 | 30-SSOP<br>(7.62)  |  |                      |  |
|       |       | μ PD78F0572   | 16        |       |         | 768       |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
|       |       | μ PD78F0573   | 32        |       |         | 1024      |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
|       |       | μ PD78F0576   | 8         |       |         | 512       |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
|       |       | μ PD78F0577   | 16        |       |         | 768       |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |
|       |       | μ PD78F0578   | 32        |       |         | 1024      |             |           |                  |       |              |        |       |       |       |       |        |                   |             |          |                |          |        |             |    |       |    |     |      |                        |               |            |           |           |                            |          |         |  |  |                      |  |

备注:  
POC: 上电清零电路 LVI: 低电压检测电路



78K0/78系列8位单片机微控制器

| 设备            |                |                   | 存储器            |       |           | 时钟           |             | I/O       | 总线               | 定时器   |           |        |       |       |       | 串行接口   |        |                   |              |          |           | OCD      | 外围功能   |             |    |       | 其他  |      | 应用 |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|---------------|----------------|-------------------|----------------|-------|-----------|--------------|-------------|-----------|------------------|-------|-----------|--------|-------|-------|-------|--------|--------|-------------------|--------------|----------|-----------|----------|--------|-------------|----|-------|-----|------|----|------------------------|----------------|------------|-----------|-----------|-----------------------------|---------|-------------------|-------------------------------------|--------------|----|
| CPU内核         | 商业名称           | 产品名称              | ROM容量(KB)      | ROM类型 | 单芯片Flash  | RAM容量(字节)    | 最大工作频率(MHz) | 内部振荡器[Hz] | 晶振频率(32.768 KHz) | I/O接口 | 外部总线数据/地址 | 16位定时器 | 8位定时器 | 其他定时器 | 带表定时器 | 带计数定时器 | 带门控定时器 | PWM输出             | UART/LIN-bus | UART/CSI | 快速LIN-bus | UART/CSI | CSI/PC | 接收功能/CSI/PC | PC | IEBus | CAN | 片上调试 |    | [segment x common] LCD | 16位 Δ Σ A/D转换器 | 10位 A/D转换器 | 8位 A/D转换器 | 8位 D/A转换器 | [bit x bit/bit + bit] 乘/除法器 | 其他功能    | 电源电压[V]           | 封装尺寸 [mm]                           | 在线仿真器<br>仿真板 |    |
| 78K0S         | μ PD789104A    | μ PD789101A       | 2              | Mask  |           | 10           |             |           | 20               | -/ -  | 1         | 1      |       |       |       |        | 1      | 8位 x 1            |              | 1        |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             | 1.8-5.5 | 30-SSOP<br>(7.62) | IE-78K0S-NS/-A,<br>IE-789136-NS-EM1 | 通用           |    |
|               |                | μ PD789102A       | 4              |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               |                | μ PD789104A       | 8              |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               | μ PD789114A    | μ PD789111A       | 2              |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               |                | μ PD789112A       | 4              |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               |                | μ PD789114A       | 8              |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               | μ PD789124A    | μ PD78F9116B      | 16             | Flash | 4<br>(RC) |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               |                | μ PD789121A       | 2              |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               |                | μ PD789122A       | 4              |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               | μ PD789134A    | μ PD789124A       | 8              | Mask  |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               |                | μ PD789131A       | 2              |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               |                | μ PD789132A       | 4              |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               | μ PD789134A    | μ PD789134A       | 8              | Flash |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               |                | μ PD78F9136B      | 16             |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
| μ PD789166Y   |                | 16                |                |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
| μ PD789167Y   | μ PD789167Y    | 24                | Mask           |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               | μ PD789167Y    | 16                |                |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               | μ PD789177Y    | 16                |                |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
| μ PD789177Y   | μ PD789177Y    | 24                | Flash          |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               | μ PD78F9177AY  | 24                |                |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
| 78K0          | μ PD780024A    | μ PD780021A(Y)    | 8              | Mask  | 1024      | 12<br>(8.38) |             | 51        | 8/16             |       |           |        |       |       |       |        |        | 16位 x 1<br>8位 x 2 | 1            |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               |                | μ PD780022A(Y)    | 16             |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               |                | μ PD780023A(Y)    | 24             |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               |                | μ PD780024A(Y)    | 32             |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               |                | μ PD780034A       | μ PD780031A(Y) |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              | 8  |
|               |                |                   | μ PD780032A(Y) |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              | 16 |
|               | μ PD780033A(Y) |                   | 24             |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               | μ PD780034A    | μ PD780034A(Y)    | 32             | Flash |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               |                | μ PD78F0034A(B/Y) | 32             |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               |                | μ PD780021AS      | 8              |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               | μ PD780024AS   | μ PD780022AS      | 16             | Mask  |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               |                | μ PD780023AS      | 24             |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               |                | μ PD780024AS      | 32             |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               | μ PD780034AS   | μ PD780031AS      | 8              | Mask  |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               |                | μ PD780032AS      | 16             |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               |                | μ PD780033AS      | 24             |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               |                | μ PD780034AS      | 32             |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               | μ PD780034AS   | μ PD78F0034BS     | 32             | Flash |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
| μ PD780053(Y) |                | 24                |                |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
| μ PD780054(Y) |                | 32                |                |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
| μ PD780058    | μ PD780055(Y)  | 40                | Mask           |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               | μ PD780056(Y)  | 48                |                |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               | μ PD780058B(Y) | 60                |                |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               | μ PD78F0058(Y) | 60                |                |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
| μ PD780058    | μ PD78F0058(Y) | 60                | Flash          |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |
|               | μ PD78F0058(Y) | 60                |                |       |           |              |             |           |                  |       |           |        |       |       |       |        |        |                   |              |          |           |          |        |             |    |       |     |      |    |                        |                |            |           |           |                             |         |                   |                                     |              |    |

备注:  
ROMC: ROM校验



# 78K0/78系列8位单片机微控制器

| 设备                  |            |               | 存储器       |       |         | 时钟        |             | I/O        | 总线              | 定时器   |           |        |       |       |        |       | 串行接口  |               |             |          |           |          |        | OC        | 外围功能   |    |     |        |         | 其他   |             |  | 应用   |                 |
|---------------------|------------|---------------|-----------|-------|---------|-----------|-------------|------------|-----------------|-------|-----------|--------|-------|-------|--------|-------|-------|---------------|-------------|----------|-----------|----------|--------|-----------|--------|----|-----|--------|---------|--|-------------|--|--|-----------------|
| CPU内核               | 商业名称       | 产品名称          | ROM容量[KB] | ROM类型 | 单电Flash | RAM容量[字节] | 最大工作频率[MHz] | 内部振荡器[Hz]  | 副振荡(32.768 KHz) | I/O接口 | 外部总线数据/地址 | 16位定时器 | 8位定时器 | 其他定时器 | 看门狗定时器 | 计数计数器 | 钟表定时器 | PWM输出         | UART/RS-485 | UART/CSI | 交叉LIN-bus | UART/CSI | CSI/PC | 交叉LIN-bus | CSI/PC | PC | I2C | 1-Wire | 其它功能    | 电源电压[V]                                      | 封装(尺寸 [mm]) | 在线仿真器                                  |  |                 |
| 78K0                | 78K0/LF3   | μ PD78F0471   | 16        | Flash | ○       | 768       | 10          | 8 M, 240 k | ○               | 62    | -/-       | 1      | 6     | -     | -      | 1     | 1     | 16位 x 18位 x 4 | -           | 1        | 1         | -        | -      | -         | -      | -  | -   | -      | -       | POC, LVI, 曼彻斯特编码发生器, 遥控接收器                   | 1.8-5.5     | 80-LQFP (12 x 12)<br>80-LQFP (14 x 14) | QB-MINI2 (MINICUBE2)<br>QB-78K0LX3 (IECUBE)  | LCD (ALL FLASH) |
|                     |            | μ PD78F0472   | 24        |       |         | 1024      |             |            |                 |       |           |        |       |       |        |       |       |               |             |          |           |          |        |           |        |    |     |        |         |  |             |  |  |                 |
|                     |            | μ PD78F0473   | 32        |       |         | 2048      |             |            |                 |       |           |        |       |       |        |       |       |               |             |          |           |          |        |           |        |    |     |        |         |  |             |  |  |                 |
|                     |            | μ PD78F0474   | 48        |       |         | 768       |             |            |                 |       |           |        |       |       |        |       |       |               |             |          |           |          |        |           |        |    |     |        |         |  |             |  |  |                 |
|                     |            | μ PD78F0475   | 60        |       |         | 1024      |             |            |                 |       |           |        |       |       |        |       |       |               |             |          |           |          |        |           |        |    |     |        |         |  |             |  |  |                 |
|                     |            | μ PD78F0481   | 16        |       |         | 2048      |             |            |                 |       |           |        |       |       |        |       |       |               |             |          |           |          |        |           |        |    |     |        |         |  |             |  |  |                 |
|                     |            | μ PD78F0482   | 24        |       |         | 768       |             |            |                 |       |           |        |       |       |        |       |       |               |             |          |           |          |        |           |        |    |     |        |         |  |             |  |  |                 |
|                     |            | μ PD78F0483   | 32        |       |         | 1024      |             |            |                 |       |           |        |       |       |        |       |       |               |             |          |           |          |        |           |        |    |     |        |         |  |             |  |  |                 |
|                     |            | μ PD78F0484   | 48        |       |         | 2048      |             |            |                 |       |           |        |       |       |        |       |       |               |             |          |           |          |        |           |        |    |     |        |         |  |             |  |  |                 |
|                     |            | μ PD78F0485   | 60        |       |         | 768       |             |            |                 |       |           |        |       |       |        |       |       |               |             |          |           |          |        |           |        |    |     |        |         |  |             |  |  |                 |
|                     |            | μ PD78F0491   | 16        |       |         | 1024      |             |            |                 |       |           |        |       |       |        |       |       |               |             |          |           |          |        |           |        |    |     |        |         |  |             |  |  |                 |
|                     |            | μ PD78F0492   | 24        |       |         | 2048      |             |            |                 |       |           |        |       |       |        |       |       |               |             |          |           |          |        |           |        |    |     |        |         |  |             |  |  |                 |
|                     |            | μ PD78F0493   | 32        |       |         | 768       |             |            |                 |       |           |        |       |       |        |       |       |               |             |          |           |          |        |           |        |    |     |        |         |  |             |  |  |                 |
|                     |            | μ PD78F0494   | 48        |       |         | 1024      |             |            |                 |       |           |        |       |       |        |       |       |               |             |          |           |          |        |           |        |    |     |        |         |  |             |  |  |                 |
| μ PD78F0495         | 60         | 2048          |           |       |         |           |             |            |                 |       |           |        |       |       |        |       |       |               |             |          |           |          |        |           |        |    |     |        |         |  |             |  |  |                 |
| 78K0/LE3-M          | 78K0/LE3-M | μ PD78F8052 * | 16        | Flash | ○       | 768       | 10          | 8 M, 240 k | ○               | 32    | -/-       | 1      | 6     | -     | -      | 1     | 1     | 16位 x 18位 x 6 | -           | 1        | 1         | -        | -      | -         | -      | -  | -   | -      | -       | POC, LVI, 电能计量, 电能质量测量, 数字周期变换, 蜂鸣器输出, 遥控发射器 | 1.8-3.6     | 64-LQFP (10 x 10)                      | QB-MINI2 (MINICUBE2)<br>QB-78K0LX3M (IECUBE) | 电表 (ALL FLASH)  |
|                     |            | μ PD78F8053 * | 32        |       |         | 1024      |             |            |                 |       |           |        |       |       |        |       |       |               |             |          |           |          |        |           |        |    |     |        |         |  |             |  |  |                 |
| 78K0/LG3-M          | 78K0/LG3-M | μ PD78F8054 * | 48        | Flash | ○       | 2048      | 10          | 8 M, 240 k | ○               | 65    | -/-       | 1      | 6     | -     | -      | 1     | 1     | 16位 x 18位 x 6 | -           | 1        | 1         | -        | -      | -         | -      | -  | -   | -      | -       | POC, LVI, 电能计量, 电能质量测量, 数字周期变换, 蜂鸣器输出, 遥控发射器 | 1.8-3.6     | 100-LQFP (14 x 14)                     |  |                 |
|                     |            | μ PD78F8055 * | 60        |       |         | 2048      |             |            |                 |       |           |        |       |       |        |       |       |               |             |          |           |          |        |           |        |    |     |        |         |  |             |  |  |                 |
| LCD驱动 <sup>注3</sup> |            | μ PD71312     | -         | -     | -       | -         | -           | -          | -               | -     | -         | -      | -     | -     | -      | -     | -     | -             | -           | -        | -         | -        | -      | -         | -      | -  | -   | -      | 1.8-5.5 | 52-LQFP (10 x 10)<br>64-LQFP (10 x 10)       | -           | LCD驱动 <sup>注3</sup>                    |  |                 |

注:  
 1. 24位 ΔΣ A/D转换器: 3通道  
 2. 24位 ΔΣ A/D转换器: 4通道  
 3. 78K0/Kx2, 78K0R/Kx3专用LCD控制驱动芯片。通过PC通信进行控制。  
 \* 开发中

备注:  
 POC: 上电清零电路  
 LVI: 低电压检测电路



78K0/78系列8位单片机微控制器

| 设备                |                   | 存储器            |           |         | 时钟       | I/O       | 总线                   | 定时器                  |            |       |           |        |       |       |     | 串行接口  |  |  |          | OCD       | 外围功能     |     |        |      | 其他 |       |     | 应用 |               |            |           |          |                           |      |                    |               |                                     |   |                                    |                                     |                                    |       |      |   |   |     |     |
|-------------------|-------------------|----------------|-----------|---------|----------|-----------|----------------------|----------------------|------------|-------|-----------|--------|-------|-------|-----|-------|--|--|----------|-----------|----------|-----|--------|------|----|-------|-----|----|---------------|------------|-----------|----------|---------------------------|------|--------------------|---------------|-------------------------------------|---|------------------------------------|-------------------------------------|------------------------------------|-------|------|---|---|-----|-----|
| CPU内核             | 商业名称              | 产品名称           | ROM容量(KB) | ROM类型   | 单芯片Flash | RAM容量(字节) | 最大工作频率(MHz)          | 内部振荡器 [Hz]           | 晶体振荡器 [Hz] | I/O接口 | 外部总线数据/地址 | 16位定时器 | 8位定时器 | 其他定时器 | 比较器 | 模数转换器 | PWM/编码器  | UART/CAN/LIN-bus                                     | UART/CSI | 快接LIN-bus | UART/CSI | CSI | CSI/IC | 串行闪存 | PC | IEBus | CAN |    | 16位 ΔΣ A/D转换器 | 10位 A/D转换器 | 8位 A/D转换器 | 8位D/A转换器 | [bit x bit/bit + bit] 除法器 | 其它功能 | 电源电压 [V]           | 封装 (Pin [mm]) | 在线仿真器                               |   |                                    |                                     |                                    |       |      |   |   |     |     |
| 78K0S             | μ PD789830        | μ PD789830     | 24        | Mask    | -        | 1024      | 3.58                 | -                    | 0          | 30    | -/-       | 1      | 1     | -     | 1   | -     | -  | 1  | -        | -         | -        | -   | -      | -    | -  | -     | -   | -  | -             | -          | -         | -        | -                         | -    | -                  | 88引脚裸片        | IE-78K0S-NS/-A,<br>IE-789831-NS-EM1 |   |                                    |                                     |                                    |       |      |   |   |     |     |
|                   |                   | μ PD78F9831    | 48        | Flash   | -        | 2048      | -                    | 0                    | 38         | -     | -         | -      | -     | -     | -   | -     | -  | -  | -        | -         | -        | -   | -      | -    | -  | -     | -   | -  | -             | -          | -         | -        | -                         | -    | 100-LQFP (14 x 14) | -             |                                     |   |                                    |                                     |                                    |       |      |   |   |     |     |
|                   | μ PD789835B       | μ PD789832B    | 24        | Mask    | -        | 2240      | 5                    | -                    | 0          | 37    | 37        | -/-    | 6     | -     | 1   | -     | 1  | 8位 x 1   | -        | -         | 1        | -   | -      | -    | -  | -     | -   | -  | -             | -          | -         | -        | -                         | -    | -                  | -             | SWAP,<br>声音发生器                      | 1.8-3.6                                 | 144-LQFP (20 x 20)                 | IE-78K0S-NS/-A,<br>IE-789835-NS-EM1 |                                    |       |      |   |   |     |     |
|                   |                   | μ PD789833B    | 32        |         |          |           |                      |                      |            |       |           |        |       |       |     |       |  |  |          |           |          |     |        |      |    |       |     |    |               |            |           |          |                           |      |                    |               |                                     |   |                                    |                                     |                                    |       |      |   |   |     |     |
|                   |                   | μ PD789834B    | 48        | Flash   | 60       | 3264      | 3.0-3.6              | -                    |            |       |           |        |       |       |     |       |  |  |          |           |          |     |        |      |    |       |     |    |               |            |           |          |                           |      |                    |               |                                     |   |                                    |                                     |                                    |       |      |   |   |     |     |
|                   |                   | μ PD789835B    | 60        |         |          |           |                      |                      |            |       |           |        |       |       |     |       |  |  |          |           |          |     |        |      |    |       |     |    |               |            |           |          |                           |      |                    |               |                                     |   |                                    |                                     |                                    |       |      |   |   |     |     |
|                   |                   | μ PD78F9835    | 60        |         |          |           |                      |                      |            |       |           |        |       |       |     |       |  |  |          |           |          |     |        |      |    |       |     |    |               |            |           |          |                           |      |                    |               |                                     |   |                                    |                                     |                                    |       |      |   |   |     |     |
| 78K0              | μ PD780308        | μ PD780306(Y)  | 48        | Mask    | -        | 2048      | 5                    | -                    | 0          | 57    | -/-       | 1      | 2     | -     | 1   | -     | 1  | 14位 x 1  | -        | -         | 1        | -   | 2      | 0    | -  | -     | -   | -  | -             | -          | -         | -        | -                         | -    | -                  | -             | -                                   | 100-LQFP (14 x 14)<br>100-QFP (14 x 20) | IE-78K0-NS/-A,<br>IE-780308-NS-EM1 |                                     |                                    |       |      |   |   |     |     |
|                   |                   | μ PD780308(Y)  | 60        | OTP ROM |          |           |                      |                      |            |       |           |        |       |       |     |       |  |  |          |           |          |     |        |      |    |       |     |    |               |            |           |          |                           |      |                    |               |                                     |   |                                    |                                     |                                    |       |      |   |   |     |     |
|                   |                   | μ PD78P0308(Y) | 60        |         |          |           |                      |                      |            |       |           |        |       |       |     |       |  |  |          |           |          |     |        |      |    |       |     |    |               |            |           |          |                           |      |                    |               |                                     |   |                                    |                                     |                                    |       |      |   |   |     |     |
|                   | μ PD780318        | μ PD780316     | 48        | Mask    | -        | 512       | 5                    | -                    | 0          | 70    | -/-       | 2      | 3     | -     | 1   | -     | 1  | 16位 x 1<br>8位 x 3                                    | -        | -         | 1        | -   | 1      | -    | -  | -     | -   | -  | -             | -          | -         | -        | -                         | -    | -                  | -             | -                                   | -                                       | -                                  | -                                   |                                    |       |      |   |   |     |     |
|                   |                   | μ PD780318     | 60        |         |          |           |                      |                      |            |       |           |        |       |       |     |       |  |  |          |           |          |     |        |      |    |       |     |    |               |            |           |          |                           |      |                    |               |                                     |   |                                    |                                     |                                    |       |      |   |   |     |     |
|                   |                   | μ PD780326     | 48        |         |          |           |                      |                      |            |       |           |        |       |       |     |       |  |  |          |           |          |     |        |      |    |       |     |    |               |            |           |          |                           |      |                    |               |                                     |   |                                    |                                     |                                    |       |      |   |   |     |     |
|                   | μ PD780328        | μ PD780328     | 60        |         |          |           |                      |                      |            |       |           |        |       |       |     |       |  |  |          |           |          |     |        |      |    |       |     |    |               |            |           |          |                           |      |                    |               |                                     |   |                                    |                                     |                                    |       |      |   |   |     |     |
|                   |                   | μ PD780336     | 60        |         |          |           |                      |                      |            |       |           |        |       |       |     |       |  |  |          |           |          |     |        |      |    |       |     |    |               |            |           |          |                           |      |                    |               |                                     |   |                                    |                                     |                                    |       |      |   |   |     |     |
|                   | μ PD780338        | μ PD780338     | 60        | Flash   | -        | 1024      | 10                   | -                    | 0          | 66    | -/-       | 1      | 4     | -     | 1   | -     | 1  | 16位 x 1<br>8位 x 3                                    | -        | -         | -        | -   | 2      | -    | 0  | -     | -   | -  | -             | -          | -         | -        | -                         | -    | -                  | -             | -                                   | -                                       | -                                  | 100-LQFP (14 x 14)                  | IE-78K0-NS/-A,<br>IE-780354-NS-EM1 |       |      |   |   |     |     |
|                   |                   | μ PD78F0338    | 60        |         |          |           |                      |                      |            |       |           |        |       |       |     |       |  |  |          |           |          |     |        |      |    |       |     |    |               |            |           |          |                           |      |                    |               |                                     |   |                                    |                                     |                                    | Flash | 1536 | 8 | - | -   | 8   |
|                   | μ PD780344        | μ PD780343(Y)  | 24        | Mask    | -        | 1024      | 10                   | -                    | 0          | 66    | -/-       | 1      | 4     | -     | 1   | -     | 1  | 16位 x 1<br>8位 x 3                                    | -        | -         | -        | -   | 2      | -    | 0  | -     | -   | -  | -             | -          | -         | -        | -                         | -    | -                  | -             | -                                   | -                                       | -                                  | -                                   |                                    |       |      |   |   |     |     |
|                   |                   | μ PD780344(Y)  | 32        |         |          |           |                      |                      |            |       |           |        |       |       |     |       |  |  |          |           |          |     |        |      |    |       |     |    |               |            |           |          |                           |      |                    |               |                                     |   |                                    |                                     |                                    |       |      |   |   |     |     |
| μ PD780354        | μ PD780353(Y)     | 48             | Mask      | -       | 1024     | 10        | -                    | 0                    | 66         | -/-   | 1         | 4      | -     | 1     | -   | 1     | 16位 x 1<br>8位 x 3                                    | -  | -        | -         | -        | 2   | -      | 0    | -  | -     | -   | -  | -             | -          | -         | -        | -                         | -    | -                  | -             | -                                   | -                                       | -                                  |                                     |                                    |       |      |   |   |     |     |
|                   | μ PD780354(Y)     | 60             |           |         |          |           |                      |                      |            |       |           |        |       |       |     |       |  |  |          |           |          |     |        |      |    |       |     |    |               |            |           |          |                           |      |                    |               |                                     |   |                                    | Flash                               | 1536                               | 8     | -    | - | 8 | -   | -   |
| 78K0              | 78K0/IY2          | μ PD78F0740    | 4         | Flash   | O        | 384       | 10                   | 4 M,<br>8 M,<br>30 k | -          | 12    | -/-       | 3      | 2     | -     | -   | -     | 1  | 16位 x 4,<br>8位 x 1<br>(2相16位 x 2<br>or<br>4相16位 x 1) | -        | -         | -        | -   | -      | -    | -  | -     | -   | O  | -             | -          | -         | -        | -                         | -    | -                  | -             | -                                   | -                                       | -                                  | -                                   | -                                  | -     |      |   |   |     |     |
|                   |                   | μ PD78F0741    | 8         |         |          |           |                      |                      |            |       |           |        |       |       |     |       |  |  |          |           |          |     |        |      |    |       |     |    |               |            |           |          |                           |      |                    |               |                                     |   |                                    |                                     |                                    |       | 512  |   |   |     |     |
|                   |                   | μ PD78F0742    | 16        |         |          |           |                      |                      |            |       |           |        |       |       |     |       |  |  |          |           |          |     |        |      |    |       |     |    |               |            |           |          |                           |      |                    |               |                                     |   |                                    |                                     |                                    |       | 768  |   |   |     |     |
|                   |                   | μ PD78F0750    | 4         |         |          |           |                      |                      |            |       |           |        |       |       |     |       |  |  |          |           |          |     |        |      |    |       |     |    |               |            |           |          |                           |      |                    |               |                                     |   |                                    |                                     |                                    |       | 384  |   |   |     |     |
|                   |                   | μ PD78F0751    | 8         |         |          |           |                      |                      |            |       |           |        |       |       |     |       |  |  |          |           |          |     |        |      |    |       |     |    |               |            |           |          |                           |      |                    |               |                                     |   |                                    |                                     |                                    |       | 512  |   |   |     |     |
|                   |                   | μ PD78F0752    | 16        |         |          |           |                      |                      |            |       |           |        |       |       |     |       |  |  |          |           |          |     |        |      |    |       |     |    |               |            |           |          |                           |      |                    |               |                                     |   |                                    |                                     |                                    |       | 768  |   |   |     |     |
|                   | 78K0/IA2          | μ PD78F0743    | 8         | Flash   | O        | 512       | 10                   | 4 M,<br>8 M,<br>30 k | -          | 16    | -/-       | 3      | 2     | -     | -   | -     | 1  | 16位 x 4,<br>8位 x 1<br>(2相16位 x 2<br>or<br>4相16位 x 1) | -        | -         | -        | -   | -      | -    | -  | -     | -   | -  | O             | -          | -         | -        | -                         | -    | -                  | -             | -                                   | -                                       | -                                  | -                                   | -                                  | -     | -    | - | - |     |     |
|                   |                   | μ PD78F0744    | 16        |         |          |           |                      |                      |            |       |           |        |       |       |     |       |  |  |          |           |          |     |        |      |    |       |     |    |               |            |           |          |                           |      |                    |               |                                     |   |                                    |                                     |                                    |       |      |   |   | 768 |     |
|                   |                   | μ PD78F0753    | 8         |         |          |           |                      |                      |            |       |           |        |       |       |     |       |  |  |          |           |          |     |        |      |    |       |     |    |               |            |           |          |                           |      |                    |               |                                     |   |                                    |                                     |                                    |       |      |   |   | 512 |     |
|                   |                   | μ PD78F0754    | 16        |         |          |           |                      |                      |            |       |           |        |       |       |     |       |  |  |          |           |          |     |        |      |    |       |     |    |               |            |           |          |                           |      |                    |               |                                     |   |                                    |                                     |                                    |       |      |   |   | 768 |     |
|                   | 78K0/IB2 (30-pin) | μ PD78F0745    | 8         | Flash   | O        | 512       | 10                   | 4 M,<br>8 M,<br>30 k | -          | 25    | -/-       | 3      | 2     | -     | -   | -     | 1  | 16位 x 5,<br>8位 x 1<br>(2相16位 x 2<br>or<br>4相16位 x 1) | -        | -         | -        | -   | -      | -    | -  | -     | -   | -  | O             | -          | -         | -        | -                         | -    | -                  | -             | -                                   | -                                       | -                                  | -                                   | -                                  | -     | -    | - | - | -   |     |
|                   |                   | μ PD78F0746    | 16        |         |          |           |                      |                      |            |       |           |        |       |       |     |       |  |  |          |           |          |     |        |      |    |       |     |    |               |            |           |          |                           |      |                    |               |                                     |   |                                    |                                     |                                    |       |      |   |   |     | 768 |
|                   |                   | μ PD78F0755    | 8         |         |          |           |                      |                      |            |       |           |        |       |       |     |       |  |  |          |           |          |     |        |      |    |       |     |    |               |            |           |          |                           |      |                    |               |                                     |   |                                    |                                     |                                    |       |      |   |   |     | 512 |
|                   |                   | μ PD78F0756    | 16        |         |          |           |                      |                      |            |       |           |        |       |       |     |       |  |  |          |           |          |     |        |      |    |       |     |    |               |            |           |          |                           |      |                    |               |                                     |   |                                    |                                     |                                    |       |      |   |   |     | 768 |
| 78K0/IB2 (32-pin) | μ PD78F0745       | 8              | Flash     | O       | 512      | 10        | 4 M,<br>8 M,<br>30 k | -                    | 23         | -/-   | 3         | 2      | -     | -     | -   | 1     | 16位 x 5,<br>8位 x 1<br>(2相16位 x 2<br>or<br>4相16位 x 1) | -  | -        | -         | -        | -   | -      | -    | -  | -     | -   | O  | -             | -          | -         | -        | -                         | -    | -                  | -             | -                                   | -                                       | -                                  | -                                   | -                                  | -     | -    | - | - |     |     |
|                   | μ PD78F0746       | 16             |           |         |          |           |                      |                      |            |       |           |        |       |       |     |       |  |  |          |           |          |     |        |      |    |       |     |    |               |            |           |          |                           |      |                    |               |                                     |   |                                    |                                     |                                    |       |      |   |   | 768 |     |
|                   | μ PD78F0755       | 8              |           |         |          |           |                      |                      |            |       |           |        |       |       |     |       |  |  |          |           |          |     |        |      |    |       |     |    |               |            |           |          |                           |      |                    |               |                                     |   |                                    |                                     |                                    |       |      |   |   | 512 |     |
|                   | μ PD78F0756       | 16             |           |         |          |           |                      |                      |            |       |           |        |       |       |     |       |  |  |          |           |          |     |        |      |    |       |     |    |               |            |           |          |                           |      |                    |               |                                     |   |                                    |                                     |                                    |       |      |   |   | 768 |     |

注:  
支持DALI协议从机接口。  
\* 开发中

备注:  
POC: 上电清零电路    LVI: 低电压检测电路    ROMC: ROM修正





78K0/78系列8位单片机微控制器

| 设备           |              |               | 存储器       |         |          |           | 时钟          |            | I/O            |       | 总线        |        | 定时器   |       |       |                 |         |                 |          | 串行接口      |          |        |      |    |       |     | OC   |                        | 外围功能          |           |          |                              |                               |                              | 其他  |   |   | 应用  |   |                          |
|--------------|--------------|---------------|-----------|---------|----------|-----------|-------------|------------|----------------|-------|-----------|--------|-------|-------|-------|-----------------|---------|-----------------|----------|-----------|----------|--------|------|----|-------|-----|------|------------------------|---------------|-----------|----------|------------------------------|-------------------------------|------------------------------|---|---|---|---|---|--------------------------|
| CPU内核        | 商业名称         | 产品名称          | ROM(除用户外) | ROM(用户) | 单字节Flash | RAM(除用户外) | 最大工作频率(MHz) | 内部振荡器(Hz)  | 晶体(32.768 kHz) | I/O接口 | 外部总线数据/地址 | 16位定时器 | 8位定时器 | 其他定时器 | 特殊定时器 | 看门狗定时器          | PWM/锯齿  | UART            | UART/CSI | 快接LIN-bus | UART/CSI | CSI/FC | 接收功能 | FC | IEBus | CAN | 片上测试 | [segment x common] LCD | 16位 ΔΣ A/D转换器 | 10位A/D转换器 | 8位A/D转换器 | 8位D/A转换器                     | [bit x bit/bit + bit] 乘/除法器   | 其它功能                         | 电源(μV)                                    | 封装(尺寸 [mm])                                     | 在线仿真器                                       | 应用  |   |                          |
| 78K0         | μ PD780232   | μ PD780232    | 16        | Mask    | 768      | 5         | -           | -          | 40             | -/-   | -         | 3      | -     | -     | 1     | -               | -       | -               | -        | -         | 1        | -      | -    | -  | -     | -   | -    | -                      | -             | -         | -        | -                            | VFD输出: 53                     | 2.7-5.5                      | 80-QFP (14 x 14)                          | IE-78K0-NS/-A, IE-780233-NS-EM4 +IE-78K0-NS-P01 | VFD   |   |   |                          |
|              |              | μ PD780233    | 24        | Flash   |          |           |             |            |                |       |           |        |       |       |       |                 |         |                 |          |           |          |        |      |    |       |     |      |                        |               |           |          |                              |                               |                              |   |   |   |   |   |                          |
| 78K0S        | μ PD789881   | μ PD789881    | 16        | Mask    | 512      | -         | 500 k       | ○          | 28             | -/-   | 1         | 3      | -     | -     | -     | 1               | 8位 x 2  | 1               | -        | -         | -        | -      | -    | -  | -     | -   | -    | 26 x 4                 | -             | -         | -        | 8 x 8                        | 低功耗                           | 2.7-3.6<br>3.0-3.6           | 80-QFP (14 x 14)                          | IE-78K0S-NS/-A, IE-789882-NS-EM1                | 电表控制  |   |   |                          |
|              |              | μ PD789882    | 32        | Flash   |          |           |             |            |                |       |           |        |       |       |       |                 |         |                 |          |           |          |        |      |    |       |     |      |                        |               |           |          |                              |                               |                              |   |   |   |   |   |                          |
| 78K0         | μ PD780958   | μ PD780957(A) | 48        | Mask    | 2048     | 1.2 (RC)  | -           | ○          | 69             | -/-   | 2         | 4      | -     | -     | -     | 1               | 16位 x 1 | 1               | -        | -         | -        | -      | -    | -  | -     | -   | -    | 30 x 3                 | -             | -         | -        | -                            | 副系统时钟2 (4.91 MHz), 采样脉冲, MR采样 | 1.8-5.5                      | 100-LQFP (14 x 14)                        | IE-78K0-NS/-A, IE-780958-NS-EM4 +IE-78K0-NS-P02 | 电表控制  |   |   |                          |
|              |              | μ PD780958(A) | 60        |         |          |           |             |            |                |       |           |        |       |       |       |                 |         |                 |          |           |          |        |      |    |       |     |      |                        |               |           |          |                              |                               |                              |   |   |   |   |   |                          |
| 78K0         | 78K0/FC2     | μ PD78F0881   | 32        | Flash   | ○        | 2048      | 20          | 8 M, 240 k | ○              | 37    | -/-       | 2      | 4     | -     | 1     | -               | 1       | 8位 x 4          | -        | 1         | -        | -      | -    | -  | -     | 1   | ○    | -                      | -             | -         | -        | 8                            | -                             | -                            | 16 x 16<br>32 ÷ 16                        | POC, LVI  | 1.8-5.5                                     | 44-LQFP (10 x 10)                           | QB-MINI2 (MINICUBE2)<br>QB-78K0FX2 (IECUBE) | 车身控制 (内置CAN) (ALL FLASH) |
|              |              | μ PD78F0882   | 48        |         |          |           |             |            |                |       |           |        |       |       |       |                 |         |                 |          |           |          |        |      |    |       |     |      |                        |               |           |          |                              |                               |                              |   |   |   |   |   |                          |
|              |              | μ PD78F0883   | 60        |         |          |           |             |            |                |       |           |        |       |       |       |                 |         |                 |          |           |          |        |      |    |       |     |      |                        |               |           |          |                              |                               |                              |   |   |   |   |   |                          |
|              |              | μ PD78F0884   | 32        |         |          |           |             |            |                |       |           |        |       |       |       |                 |         |                 |          |           |          |        |      |    |       |     |      |                        |               |           |          |                              |                               |                              |   |   |   |   |   |                          |
|              |              | μ PD78F0885   | 48        |         |          |           |             |            |                |       |           |        |       |       |       |                 |         |                 |          |           |          |        |      |    |       |     |      |                        |               |           |          |                              |                               |                              |   |   |   |   |   |                          |
|              |              | μ PD78F0886   | 60        |         |          |           |             |            |                |       |           |        |       |       |       |                 |         |                 |          |           |          |        |      |    |       |     |      |                        |               |           |          |                              |                               |                              |   |   |   |   |   |                          |
|              | 78K0/FE2     | μ PD78F0887   | 48        | Flash   | ○        | 3072      | 20          | 8 M, 240 k | ○              | 55    | -/-       | 4      | 4     | -     | 1     | -               | 1       | 8位 x 4          | -        | 1         | -        | 1      | -    | -  | -     | -   | 1    | ○                      | -             | -         | 12       | -                            | -                             | 16 x 16<br>32 ÷ 16           | POC, LVI                                  | 1.8-5.5   | 64-LQFP (10 x 10)<br>64-LQFP (12 x 12)      | QB-MINI2 (MINICUBE2)<br>QB-78K0FX2 (IECUBE) | 车身控制 (内置CAN) (ALL FLASH)                    |                          |
|              |              | μ PD78F0888   | 60        |         |          |           |             |            |                |       |           |        |       |       |       |                 |         |                 |          |           |          |        |      |    |       |     |      |                        |               |           |          |                              |                               |                              |   |   |   |   |   |                          |
|              |              | μ PD78F0889   | 96        |         |          |           |             |            |                |       |           |        |       |       |       |                 |         |                 |          |           |          |        |      |    |       |     |      |                        |               |           |          |                              |                               |                              |   |   |   |   |   |                          |
|              | 78K0/FF2     | μ PD78F0891   | 60        | Flash   | ○        | 3072      | 20          | 8 M, 240 k | ○              | 71    | -/-       | 4      | 4     | -     | 1     | -               | 1       | 8位 x 4          | -        | 1         | -        | 1      | -    | -  | -     | 1   | ○    | -                      | -             | 16        | -        | -                            | 16 x 16<br>32 ÷ 16            | POC, LVI                     | 1.8-5.5                                   | 80-LQFP (12 x 12)<br>80-LQFP (14 x 14)          | QB-MINI2 (MINICUBE2)<br>QB-78K0FX2 (IECUBE) | 车身控制 (内置CAN) (ALL FLASH)                    |   |                          |
|              |              | μ PD78F0892   | 96        |         |          |           |             |            |                |       |           |        |       |       |       |                 |         |                 |          |           |          |        |      |    |       |     |      |                        |               |           |          |                              |                               |                              |   |   |   |   |   |                          |
|              |              | μ PD78F0893   | 128       |         |          |           |             |            |                |       |           |        |       |       |       |                 |         |                 |          |           |          |        |      |    |       |     |      |                        |               |           |          |                              |                               |                              |   |   |   |   |   |                          |
|              | 78K0/FY2-L   | μ PD78F0854 * | 4         | Flash   | ○        | 384       | 20          | 8 M, 4 M   | ○              | 12    | -/-       | 2      | 2     | -     | -     | -               | 1       | -               | -        | -         | -        | -      | -    | -  | -     | -   | -    | -                      | 5             | -         | -        | 8 x 8<br>32 ÷ 16             | POC, LVI, 电压调节器               | 1.8-5.5                      | 16-SSOP (5.72)                            | QB-MINI2 (MINICUBE2)<br>QB-78K0FX2L (IECUBE)    | 汽车电子  |   |   |                          |
|              |              | μ PD78F0855 * | 8         |         |          |           |             |            |                |       |           |        |       |       |       |                 |         |                 |          |           |          |        |      |    |       |     |      |                        |               |           |          |                              |                               |                              |   |   |   |   |   |                          |
|              | 78K0/FA2-L   | μ PD78F0857 * | 4         | Flash   | ○        | 384       | 20          | 8 M, 4 M   | ○              | 16    | -/-       | 2      | 2     | -     | -     | -               | 1       | 16位 x 2         | 1        | -         | -        | -      | -    | -  | -     | -   | -    | -                      | 6             | -         | -        | 8 x 8<br>32 ÷ 16             | POC, LVI, 电压调节器               | 1.8-5.5                      | 20-SSOP (7.62)                            | QB-MINI2 (MINICUBE2)<br>QB-78K0FX2L (IECUBE)    | 车身控制 (ALL FLASH)                            |   |   |                          |
|              |              | μ PD78F0858 * | 8         |         |          |           |             |            |                |       |           |        |       |       |       |                 |         |                 |          |           |          |        |      |    |       |     |      |                        |               |           |          |                              |                               |                              |   |   |   |   |   |                          |
|              | 78K0/FB2-L   | μ PD78F0864 * | 8         | Flash   | -        | 512       | 20          | 8 M, 4 M   | ○              | 25    | -/-       | 3      | 2     | -     | -     | -               | 1       | 16位 x 4         | 1        | -         | -        | -      | -    | -  | -     | -   | -    | -                      | 9             | -         | -        | 8 x 8<br>32 ÷ 16             | POC, LVI, 电压调节器               | 1.8-5.5                      | 30-SSOP (7.62)                            | QB-MINI2 (MINICUBE2)<br>QB-78K0FX2L (IECUBE)    | 汽车电子  |   |   |                          |
|              |              | μ PD78F0865 * | 16        |         |          |           |             |            |                |       |           |        |       |       |       |                 |         |                 |          |           |          |        |      |    |       |     |      |                        |               |           |          |                              |                               |                              |   |   |   |   |   |                          |
|              | μ PD788002   | μ PD788001A   | 16        | Mask    | -        | 768       | 12          | 240 k      | -              | 21    | -/-       | 1      | 3     | -     | -     | -               | 1       | 16位 x 1, 8位 x 3 | -        | 1         | 1        | -      | -    | -  | -     | -   | -    | -                      | -             | 3         | -        | -                            | -                             | POC, LVI, CLM, 电压调节器, LIN收发器 | 6-8                                       | 38-SSOP (7.62)                                  | QB-78K0KX1H (IECUBE)<br>+QB-788002-EA-01T   | 车身控制 (内置LIN)                                |   |                          |
|              |              | μ PD788002A   | 24        |         |          |           |             |            |                |       |           |        |       |       |       |                 |         |                 |          |           |          |        |      |    |       |     |      |                        |               |           |          |                              |                               |                              |   |   |   |   |   |                          |
|              |              | μ PD788002A   | 24        |         |          |           |             |            |                |       |           |        |       |       |       |                 |         |                 |          |           |          |        |      |    |       |     |      |                        |               |           |          |                              |                               |                              |   |   |   |   |   |                          |
|              | μ PD788006   | μ PD788004A   | 16        | Mask    | -        | 512       | 12          | 240 k      | ○              | 31    | -/-       | 1      | 4     | -     | 1     | -               | 1       | 16位 x 1, 8位 x 4 | -        | 1         | 1        | -      | -    | -  | -     | -   | -    | -                      | 7             | -         | -        | -                            | POC, LVI, CLM, 电压调节器, LIN收发器  | 7-18                         | 52-LQFP (10 x 10)                         | QB-78K0KX1H (IECUBE)<br>+QB-788006-EA-01T       | 车身控制 (内置LIN)                                |   |   |                          |
|              |              | μ PD788005A   | 24        |         |          |           |             |            |                |       |           |        |       |       |       |                 |         |                 |          |           |          |        |      |    |       |     |      |                        |               |           |          |                              |                               |                              |   |   |   |   |   |                          |
|              | μ PD78F8006H | μ PD788006A   | 32        | Flash   | ○        | 1024      | 16          | 240 k      | ○              | 31    | -/-       | 1      | 4     | -     | 1     | -               | 1       | 16位 x 1, 8位 x 4 | -        | 1         | 1        | -      | -    | -  | -     | -   | -    | -                      | -             | 7         | -        | -                            | -                             | POC, LVI, CLM, 电压调节器, LIN收发器 | 7-18                                      | 52-LQFP (10 x 10)                               | QB-78K0KX1H (IECUBE)<br>+QB-788006-EA-01T   | 车身控制 (内置LIN)                                |   |                          |
| μ PD78F8004H |              | 16            |           |         |          |           |             |            |                |       |           |        |       |       |       |                 |         |                 |          |           |          |        |      |    |       |     |      |                        |               |           |          |                              |                               |                              |   |   |   |   |   |                          |
| μ PD78F8005H |              | 24            |           |         |          |           |             |            |                |       |           |        |       |       |       |                 |         |                 |          |           |          |        |      |    |       |     |      |                        |               |           |          |                              |                               |                              |   |   |   |   |   |                          |
| μ PD78F8006H | 32           | Flash         | ○         | 1024    | 16       | 240 k     | ○           | 31         | -/-            | 1     | 4         | -      | 1     | -     | 1     | 16位 x 1, 8位 x 4 | -       | 1               | 1        | -         | -        | -      | -    | -  | -     | -   | -    | -                      | -             | -         | -        | POC, LVI, CLM, 电压调节器, LIN收发器 | 7-18                          | 52-LQFP (10 x 10)            | QB-78K0KX1H (IECUBE)<br>+QB-788006-EA-01T | 车身控制 (内置LIN)                                    |   |   |   |                          |

备注:  
 POC: 上电清零电路  
 LVI: 低电压检测电路  
 CLM: 时钟监视器  
 BSB: 位连续缓冲器



78K0/78系列8位单片微控制器

| 设备         |              |              | 存储器         |         |          | 时钟          |             | I/O        | 总线             | 定时器   |           |        |       |       |        |       | 串行接口   |                 |          |          |           |          |        | OCD  | 外围功能   |    |       |     |        | 其他                     |               |            | 应用 |                              |                             |                      |                                  |   |                    |           |       |   |   |   |
|------------|--------------|--------------|-------------|---------|----------|-------------|-------------|------------|----------------|-------|-----------|--------|-------|-------|--------|-------|--------|-----------------|----------|----------|-----------|----------|--------|------|--------|----|-------|-----|--------|------------------------|---------------|------------|----|------------------------------|-----------------------------|----------------------|----------------------------------|---|--------------------|-----------|-------|---|---|---|
| CPU内核      | 商业名称         | 产品名称         | ROM(字节)[KB] | ROM系列   | 单字节Flash | RAM(字节)[KB] | 最大工作频率[MHz] | 内部振荡器 [Hz] | 晶振(32.768 kHz) | I/O接口 | 外部总线数据/地址 | 16位定时器 | 8位定时器 | 其他定时器 | 看门狗定时器 | 计数定时器 | 计数定时器  | PWM/SSB         | UART/CSI | UART/CSI | 内部LIN-bus | UART/CSI | CSI/PC | 接点功能 | CSI/PC | PC | IEBus | CAN | 片上测试   | [segment x common] LCD | 16位 ΔΣ A/D转换器 | 10位 A/D转换器 |    |                              | 8位 A/D转换器                   | 8位 D/A转换器            | [bit x bit/bit + bit] 乘/除法器      | 其它功能  | 电源电压[V]            | 封装尺寸 [mm] | 在线仿真器 |   |   |   |
| 78K0       | μ PD780822B  | μ PD780821B  | 90          | Mask    | -        | 5120        | 16          | 240 k      | ○              | 76    | -/-       | 4      | 2     | -     | 1      | -     | 1      | 16位 x 3, 8位 x 2 | -        | 1        | -         | -        | -      | -    | -      | -  | -     | -   | -      | 34 x 4                 | -             | 8          | -  | -                            | -                           | CLM, 声音发生器, 仪表控制/驱动器 | 4.0-5.5                          | 100-LQFP (14 x 14)                              | QB-780822 (IECUBE) | 汽车电子      | 仪表盘控制 |   |   |   |
|            |              | μ PD780822B  | 120         | Flash   | -        | -           | -           | -          | -              | -     | -         | -      | -     | -     | -      | -     | -      | -               | -        | -        | -         | -        | -      | -    | -      | -  | -     | -   | -      | -                      | -             | -          | -  | -                            | -                           | -                    | -                                | -   | -                  |           |       |   |   |   |
|            |              | μ PD78F0822B | 120         | Flash   | -        | -           | -           | -          | -              | -     | -         | -      | -     | -     | -      | -     | -      | -               | -        | -        | -         | -        | -      | -    | -      | -  | -     | -   | -      | -                      | -             | -          | -  | -                            | -                           | -                    | -                                | -   | -                  |           |       | - | - | - |
|            | μ PD780824A  | 32           | Mask        | -       | 1504     | 8.38        | -           | -          | 59             | -/-   | 1         | 3      | -     | 1     | -      | 1     | 8位 x 2 | 1               | -        | -        | -         | 2        | -      | -    | -      | -  | -     | -   | 28 x 4 | -                      | -             | 5          | -  | -                            | 声音发生器, 仪表控制/驱动器             | 4.0-5.5              | 80-QFP (14 x 14)                 | IE-78K0-NS/-A, IE-780828-NS-EM4 +IE-78K0-NS-P04 |                    |           |       |   |   |   |
| 78K0S      | μ PD789860   | μ PD789860   | 4           | Mask    | -        | 128         | 5           | -          | -              | 14    | -/-       | -      | 2     | -     | -      | -     | 8位 x 1 | -               | -        | -        | -         | -        | -      | -    | -      | -  | -     | -   | -      | -                      | -             | -          | -  | -                            | POC, LVI, BSB, EEPROM: 32字节 | 1.8-5.5              | 20-SSOP (7.62)                   | IE-78K0S-NS/-A, IE-789860-NS-EM1                | 汽车电子               | 免钥门禁      |       |   |   |   |
|            |              | μ PD78E9860A | 4           | EPP ROM | -        | -           | -           | -          | -              | -     | -         | -      | -     | -     | -      | -     | -      | -               | -        | -        | -         | -        | -      | -    | -      | -  | -     | -   | -      | -                      | -             | -          | -  | -                            | -                           | -                    | -                                | -   |                    |           | -     | - | - |   |
|            | μ PD789861   | 4            | Mask        | -       | 1        | 1 (RC)      | -           | -          | -              | -     | -         | -      | -     | -     | -      | -     | -      | -               | -        | -        | -         | -        | -      | -    | -      | -  | -     | -   | -      | -                      | -             | -          | -  | -                            | -                           | -                    | -                                | -   |                    |           | -     | - | - | - |
|            | μ PD78E9861A | 4            | EPP ROM     | -       | -        | -           | -           | -          | -              | -     | -         | -      | -     | -     | -      | -     | -      | -               | -        | -        | -         | -        | -      | -    | -      | -  | -     | -   | -      | -                      | -             | -          | -  | -                            | -                           | -                    | -                                | -   |                    |           | -     | - | - | - |
| μ PD789862 | μ PD789862   | 16           | Mask        | -       | 512      | 5           | -           | -          | 22             | -/-   | 2         | 1      | -     | -     | -      | 1     | 8位 x 1 | -               | -        | 1        | -         | -        | -      | -    | -      | -  | -     | -   | -      | -                      | -             | -          | -  | POC, LVI, BSB, EEPROM: 256字节 | 1.8-5.5                     | 30-SSOP (7.62)       | IE-78K0S-NS/-A, IE-789862-NS-EM1 |   |                    |           |       |   |   |   |

备注:  
 POC: 上电清零电路  
 LVI: 低电压检测电路  
 CLM: 时钟监视器  
 BSB: 位连续缓冲器

| 设备                   |                      |              | 存储器          |         |           |                  | 时钟                   |                    | I/O        | 总线        | 定时器    |       |        |       | 串行接口 |          |                  |                                 |                                 |      | OCD  | 外围功能 |     |      |                       |           | 其他        |           |          | 应用                            |                                  |                                  |   |  |         |  |  |  |  |
|----------------------|----------------------|--------------|--------------|---------|-----------|------------------|----------------------|--------------------|------------|-----------|--------|-------|--------|-------|------|----------|------------------|---------------------------------|---------------------------------|------|------|------|-----|------|-----------------------|-----------|-----------|-----------|----------|-------------------------------|----------------------------------|----------------------------------|---|--|---------|--|--|--|--|
| CPU内核                | 商业名称                 | 产品名称         | ROM容量[KB]    | 单电Flash | RAM容量[KB] | 最大工作频率[MHz]      | 内部振荡器[Hz]            | 外部系统时钟[32.768 KHz] | I/O        | 外部总线数据/地址 | 16位定时器 | 快速定时器 | 看门狗定时器 | PWM输出 | CSI  | CSI/UART | CSI/UART/UART/FC | CSI: 2通道/UART: 1通道/UART/FC: 2通道 | CSI: 2通道/UART: 1通道/UART/FC: 1通道 | UART | UART | FC   | CAN | 片上闪存 | LCD(segment x common) | 12位A/D转换器 | 10位A/D转换器 | 12位D/A转换器 | 8位D/A转换器 | 乘除法器<br>[bit x bit/bit + bit] | 其它功能                             | 电源电压[V]                          | 封装尺寸[mm]  | 在线仿真器<br>仿真板                                 | 应用      |  |  |  |  |
| 78K0R                | 78K0R/KE3            | μ PD78F1142A | 64           | Flash   | 0         | 4                | 20                   | 8 M, 240 k         | 0          | 55        | -/     | 8     | 1      | 1     | -    | 1        | -                | -                               | -                               | -    | -    | 1    | 1   | 0    | -                     | -         | 8         | -         | -        | 16 x 16                       | POC, LVI, DMA, 温度传感器             | 1.8-5.5                          | 64-TQFP (7 x 7)<br>64-LQFP (10 x 10)<br>64-LQFP (12 x 12)<br>64-FBGA (5 x 5)<br>64-FBGA (6 x 6) |  |         |  |  |  |  |
|                      |                      | μ PD78F1143A | 96           |         |           | 6                |                      |                    |            |           |        |       |        |       |      |          |                  |                                 |                                 |      |      |      |     |      |                       |           |           |           |          |                               |                                  |                                  |   |  |         |  |  |  |  |
|                      |                      | μ PD78F1144A | 128          |         |           | 8                |                      |                    |            |           |        |       |        |       |      |          |                  |                                 |                                 |      |      |      |     |      |                       |           |           |           |          |                               |                                  |                                  |   |  |         |  |  |  |  |
|                      |                      | μ PD78F1145A | 192          |         |           | 10               |                      |                    |            |           |        |       |        |       |      |          |                  |                                 |                                 |      |      |      |     |      |                       |           |           |           |          |                               |                                  |                                  |   |  |         |  |  |  |  |
|                      |                      | μ PD78F1146A | 256          |         |           | 12 <sup>33</sup> |                      |                    |            |           |        |       |        |       |      |          |                  |                                 |                                 |      |      |      |     |      |                       |           |           |           |          |                               |                                  |                                  |   |  |         |  |  |  |  |
|                      | 78K0R/KF3            | 78K0R/KF3    | μ PD78F1152A | 64      | Flash     | 0                | 4                    | 20                 | 8 M, 240 k | 0         | 70     | -/    | 8      | 1     | 1    | -        | -                | 1                               | 2                               | -    | -    | -    | -   | -    | 1                     | 1         | 0         | -         | -        | 8                             | -                                | 2                                | 16 x 16   | POC, LVI, DMA, 温度传感器                         | 1.8-5.5 | 80-LQFP (12 x 12)<br>80-LQFP (14 x 14)   |  |  |  |
|                      |                      |              | μ PD78F1153A | 96      |           |                  | 6                    |                    |            |           |        |       |        |       |      |          |                  |                                 |                                 |      |      |      |     |      |                       |           |           |           |          |                               |                                  |                                  |   |  |         |  |  |  |  |
|                      |                      |              | μ PD78F1154A | 128     |           |                  | 8                    |                    |            |           |        |       |        |       |      |          |                  |                                 |                                 |      |      |      |     |      |                       |           |           |           |          |                               |                                  |                                  |   |  |         |  |  |  |  |
|                      |                      |              | μ PD78F1155A | 192     |           |                  | 10                   |                    |            |           |        |       |        |       |      |          |                  |                                 |                                 |      |      |      |     |      |                       |           |           |           |          |                               |                                  |                                  |   |  |         |  |  |  |  |
|                      |                      |              | μ PD78F1156A | 256     |           |                  | 12 <sup>33</sup>     |                    |            |           |        |       |        |       |      |          |                  |                                 |                                 |      |      |      |     |      |                       |           |           |           |          |                               |                                  |                                  |   |  |         |  |  |  |  |
|                      | 78K0R/KG3            | 78K0R/KG3    | μ PD78F1162A | 64      | Flash     | 0                | 4                    | 20                 | 8 M, 240 k | 0         | 88     | 16/20 | 8      | 1     | 1    | -        | -                | 1                               | 2                               | -    | -    | -    | -   | -    | 1                     | 1         | 0         | -         | -        | 16                            | -                                | 2                                | 16 x 16   | POC, LVI, DMA, 温度传感器                         | 1.8-5.5 | 100-LQFP (14 x 14)<br>100-LQFP (14 x 20) | QB-MINI2 (MINICUBE2)<br>QB-78K0RXX3 (IECUBE) |  |  |
|                      |                      |              | μ PD78F1163A | 96      |           |                  | 6                    |                    |            |           |        |       |        |       |      |          |                  |                                 |                                 |      |      |      |     |      |                       |           |           |           |          |                               |                                  |                                  |   |  |         |  |  |  |  |
|                      |                      |              | μ PD78F1164A | 128     |           |                  | 8                    |                    |            |           |        |       |        |       |      |          |                  |                                 |                                 |      |      |      |     |      |                       |           |           |           |          |                               |                                  |                                  |   |  |         |  |  |  |  |
|                      |                      |              | μ PD78F1165A | 192     |           |                  | 10                   |                    |            |           |        |       |        |       |      |          |                  |                                 |                                 |      |      |      |     |      |                       |           |           |           |          |                               |                                  |                                  |   |  |         |  |  |  |  |
|                      |                      |              | μ PD78F1166A | 256     |           |                  | 12 <sup>21</sup>     |                    |            |           |        |       |        |       |      |          |                  |                                 |                                 |      |      |      |     |      |                       |           |           |           |          |                               |                                  |                                  |   |  |         |  |  |  |  |
|                      |                      |              | μ PD78F1167A | 384     |           |                  | 24                   |                    |            |           |        |       |        |       |      |          |                  |                                 |                                 |      |      |      |     |      |                       |           |           |           |          |                               |                                  |                                  |   |  |         |  |  |  |  |
|                      | 78K0R/KH3            | 78K0R/KH3    | μ PD78F1168A | 512     | Flash     | 0                | 30 <sup>32</sup>     | 20                 | 8 M, 240 k | 0         | 116    | 16/20 | 12     | 1     | 1    | -        | -                | 1                               | 2                               | -    | -    | -    | -   | -    | 1                     | 1         | 0         | -         | -        | 16                            | -                                | 2                                | 16 x 16   | POC, LVI, DMA, 温度传感器                         | 1.8-5.5 | 128-LQFP (14 x 20)                       |  |  |  |
|                      |                      |              | μ PD78F1174A | 128     |           |                  | 8                    |                    |            |           |        |       |        |       |      |          |                  |                                 |                                 |      |      |      |     |      |                       |           |           |           |          |                               |                                  |                                  |   |  |         |  |  |  |  |
|                      |                      |              | μ PD78F1175A | 192     |           |                  | 10                   |                    |            |           |        |       |        |       |      |          |                  |                                 |                                 |      |      |      |     |      |                       |           |           |           |          |                               |                                  |                                  |   |  |         |  |  |  |  |
|                      |                      |              | μ PD78F1176A | 256     |           |                  | 12                   |                    |            |           |        |       |        |       |      |          |                  |                                 |                                 |      |      |      |     |      |                       |           |           |           |          |                               |                                  |                                  |   |  |         |  |  |  |  |
|                      |                      |              | μ PD78F1177A | 384     |           |                  | 24                   |                    |            |           |        |       |        |       |      |          |                  |                                 |                                 |      |      |      |     |      |                       |           |           |           |          |                               |                                  |                                  |   |  |         |  |  |  |  |
|                      | 78K0R/KJ3            | 78K0R/KJ3    | μ PD78F1178A | 512     | Flash     | 0                | 30 <sup>32</sup>     | 20                 | 8 M, 240 k | 0         | 132    | 16/20 | 12     | 1     | 1    | -        | -                | 1                               | -                               | 2    | -    | -    | -   | -    | 1                     | 1         | 0         | -         | -        | 16                            | -                                | 2                                | 16 x 16   | POC, LVI, DMA, 温度传感器                         | 1.8-5.5 | 144-LQFP (20 x 20)                       |  |  |  |
|                      |                      |              | μ PD78F1184A | 128     |           |                  | 8                    |                    |            |           |        |       |        |       |      |          |                  |                                 |                                 |      |      |      |     |      |                       |           |           |           |          |                               |                                  |                                  |   |  |         |  |  |  |  |
|                      |                      |              | μ PD78F1185A | 192     |           |                  | 10                   |                    |            |           |        |       |        |       |      |          |                  |                                 |                                 |      |      |      |     |      |                       |           |           |           |          |                               |                                  |                                  |   |  |         |  |  |  |  |
| μ PD78F1186A         |                      |              | 256          | 12      |           |                  |                      |                    |            |           |        |       |        |       |      |          |                  |                                 |                                 |      |      |      |     |      |                       |           |           |           |          |                               |                                  |                                  |   |  |         |  |  |  |  |
| μ PD78F1187A         |                      |              | 384          | 24      |           |                  |                      |                    |            |           |        |       |        |       |      |          |                  |                                 |                                 |      |      |      |     |      |                       |           |           |           |          |                               |                                  |                                  |   |  |         |  |  |  |  |
| 78K0R/KC3-L (44-pin) | 78K0R/KC3-L (44-pin) | μ PD78F1000  | 16           | Flash   | 0         | 1                | 20 M, 8 M, 1 M, 30 k | 0                  | 37         | -/        | 8      | 1     | 1      | -     | -    | -        | 1                | -                               | -                               | -    | -    | -    | -   | -    | -                     | -         | -         | 10        | -        | -                             | 16 x 16<br>32 ÷ 32               | POC, LVI, DMA, 比较器 x 2, 可编程增益放大器 | 1.8-5.5   | 44-LQFP (10 x 10)                            |         |  |  |  |  |
|                      |                      | μ PD78F1001  | 32           |         |           | 1.5              |                      |                    |            |           |        |       |        |       |      |          |                  |                                 |                                 |      |      |      |     |      |                       |           |           |           |          |                               |                                  |                                  |   |  |         |  |  |  |  |
|                      |                      | μ PD78F1002  | 48           |         |           | 2                |                      |                    |            |           |        |       |        |       |      |          |                  |                                 |                                 |      |      |      |     |      |                       |           |           |           |          |                               |                                  |                                  |   |  |         |  |  |  |  |
|                      |                      | μ PD78F1003  | 64           |         |           | 3 <sup>33</sup>  |                      |                    |            |           |        |       |        |       |      |          |                  |                                 |                                 |      |      |      |     |      |                       |           |           |           |          |                               |                                  |                                  |   |  |         |  |  |  |  |
| 78K0R/KC3-L (48-pin) | 78K0R/KC3-L (48-pin) | μ PD78F1001  | 32           | Flash   | 0         | 1.5              | 20 M, 8 M, 1 M, 30 k | 0                  | 41         | -/        | 8      | 1     | 1      | -     | -    | -        | 1                | -                               | -                               | -    | -    | -    | -   | -    | -                     | -         | -         | 11        | -        | -                             | 16 x 16<br>32 ÷ 32               | POC, LVI, DMA, 比较器 x 2, 可编程增益放大器 | 1.8-5.5   | 48-TQFP (7 x 7)                              |         |  |  |  |  |
|                      |                      | μ PD78F1002  | 48           |         |           | 2                |                      |                    |            |           |        |       |        |       |      |          |                  |                                 |                                 |      |      |      |     |      |                       |           |           |           |          |                               |                                  |                                  |   |  |         |  |  |  |  |
|                      |                      | μ PD78F1003  | 64           |         |           | 3 <sup>33</sup>  |                      |                    |            |           |        |       |        |       |      |          |                  |                                 |                                 |      |      |      |     |      |                       |           |           |           |          |                               |                                  |                                  |   |  |         |  |  |  |  |
| 78K0R/KD3-L          | 78K0R/KD3-L          | μ PD78F1004  | 32           | Flash   | 0         | 1.5              | 20 M, 8 M, 1 M, 30 k | 0                  | 45         | -/        | 8      | 1     | 1      | -     | -    | -        | 1                | -                               | -                               | -    | -    | -    | -   | -    | -                     | -         | 11        | -         | -        | 16 x 16<br>32 ÷ 32            | POC, LVI, DMA, 比较器 x 2, 可编程增益放大器 | 1.8-5.5                          | 52-LQFP (10 x 10)   | QB-MINI2 (MINICUBE2)<br>QB-78K0RIX3 (IECUBE) |         |  |  |  |  |
|                      |                      | μ PD78F1005  | 48           |         |           | 2                |                      |                    |            |           |        |       |        |       |      |          |                  |                                 |                                 |      |      |      |     |      |                       |           |           |           |          |                               |                                  |                                  |   |  |         |  |  |  |  |
|                      |                      | μ PD78F1006  | 64           |         |           | 3 <sup>33</sup>  |                      |                    |            |           |        |       |        |       |      |          |                  |                                 |                                 |      |      |      |     |      |                       |           |           |           |          |                               |                                  |                                  |   |  |         |  |  |  |  |
| 78K0R/KE3-L          | 78K0R/KE3-L          | μ PD78F1007  | 32           | Flash   | 0         | 1.5              | 20 M, 8 M, 1 M, 30 k | 0                  | 55         | -/        | 8      | 1     | 1      | -     | -    | -        | 1                | -                               | -                               | -    | -    | -    | -   | -    | -                     | -         | 12        | -         | -        | 16 x 16<br>32 ÷ 32            | POC, LVI, DMA, 比较器 x 2, 可编程增益放大器 | 1.8-5.5                          | 64-TQFP (7 x 7)<br>64-LQFP (10 x 10)<br>64-LQFP (12 x 12)<br>64-FBGA (4 x 4)<br>64-FBGA (5 x 5) |  |         |  |  |  |  |
|                      |                      | μ PD78F1008  | 48           |         |           | 2                |                      |                    |            |           |        |       |        |       |      |          |                  |                                 |                                 |      |      |      |     |      |                       |           |           |           |          |                               |                                  |                                  |   |  |         |  |  |  |  |
|                      |                      | μ PD78F1009  | 64           |         |           | 3 <sup>33</sup>  |                      |                    |            |           |        |       |        |       |      |          |                  |                                 |                                 |      |      |      |     |      |                       |           |           |           |          |                               |                                  |                                  |   |  |         |  |  |  |  |

注：  
 1. 使用自编程功能时为10KB。  
 2. 使用自编程功能时为28KB。  
 3. 使用自编程功能时为2KB。  
 备注：  
 POC: 上电清零电路  
 LVI: 低电压检测电路  
 \* 开发中

通用  
(ALL FLASH)



### 78K0R系列16位单片机微控制器

| 设备            |               |                | 存储器       |               |                 | 时钟                   |                      | I/O 总线            |       | 定时器      |        |        | 串行接口  |     |          |                |                               |                                 |                    |            |      |                 | OCD             | 外围功能 |      |                       |           | 其他        |           |                 | 应用                   |                                |                                |  |   |   |                     |                 |
|---------------|---------------|----------------|-----------|---------------|-----------------|----------------------|----------------------|-------------------|-------|----------|--------|--------|-------|-----|----------|----------------|-------------------------------|---------------------------------|--------------------|------------|------|-----------------|-----------------|------|------|-----------------------|-----------|-----------|-----------|-----------------|----------------------|--------------------------------|--------------------------------|--|---|---|---------------------|-----------------|
| CPU内核         | 商业名称          | 产品名称           | ROM容量[KB] | 单电Flash ROM容量 | RAM容量[KB]       | 最大工作频率[MHz]          | 内部振荡器[Hz]            | 副系统时钟[32.768 kHz] | I/O端口 | 外部总线数据地址 | 16位定时器 | 看门狗定时器 | PWM输出 | CSI | CSI/UART | CSI/UART/红外*1C | CSI: 2通道/UART: 1通道/红外*1C: 2通道 | CSI: 2通道/UART: 1通道/LIN-bus: 1通道 | CSI: 2通道/UART: 1通道 | UART/红外*1C | UART | UART控制LIN-bus   | FC              | CAN  | 片上调试 | LCD(segment x common) | 12位A/D转换器 | 10位A/D转换器 | 12位D/A转换器 | 8位D/A转换器        |                      | 乘/除法器 [bit x bit/bit + bit]    | 其它功能                           | 电源电压[V]  | 封装尺寸 [mm]                                     | 在线仿真器   |                     |                 |
| 78K0R         | 78K0R/KF3-L   | μ PD78F1010    | 64        | Flash         | 0               | 4                    | 20 M, 8 M, 1 M, 30 k | 0                 | 71    | -/-      | 12     | 1      | 1     | -   | -        | 1              | 2                             | -                               | -                  | -          | -    | 1               | 1               | -    | 0    | -                     | -         | 12        | -         | -               | 16 x 16 32 + 32      | POC, LVI, DMA                  | 1.8-5.5                        | 80-LQFP (12 x 12)<br>80-LQFP (14 x 14)                         | QB-MINI2 (MINICUBE2)<br>QB-78K0RKX3C (IECUBE) | 通用 (ALL FLASH)                                |                     |                 |
|               |               | μ PD78F1011    | 96        |               |                 |                      |                      |                   |       |          |        |        |       |     |          |                |                               |                                 |                    |            |      |                 |                 |      |      |                       |           |           |           |                 |                      |                                |                                |  |   |   | 6                   |                 |
|               |               | μ PD78F1012    | 128       |               |                 |                      |                      |                   |       |          |        |        |       |     |          |                |                               |                                 |                    |            |      |                 |                 |      |      |                       |           |           |           |                 |                      |                                |                                |  |   |   | 8 <sup>注1</sup>     |                 |
|               | 78K0R/KG3-L   | μ PD78F1013    | 96        | Flash         | 0               | 6                    | 20 M, 8 M, 1 M, 30 k | 0                 | 89    | -/-      | 12     | 1      | 1     | -   | -        | 1              | 2                             | -                               | -                  | -          | -    | 1               | 1               | -    | 0    | -                     | -         | 16        | -         | -               | 16 x 16 32 + 32      | POC, LVI, DMA                  | 1.8-5.5                        | 100-LQFP (14 x 14)<br>100-LQFP (14 x 20)<br>100-FBGA * (6 x 6) | 通用 (ALL FLASH)                                |   |                     |                 |
|               |               | μ PD78F1014    | 128       |               |                 |                      |                      |                   |       |          |        |        |       |     |          |                |                               |                                 |                    |            |      |                 |                 |      |      |                       |           |           |           |                 |                      |                                |                                |  |   | 8 <sup>注1</sup>                               |                     |                 |
|               | 78K0R/KE3-A   | μ PD78F1016    | 64        | Flash         | 0               | 4                    | 20 M, 8 M, 1 M, 30 k | 0                 | 53    | -/-      | 12     | 1      | 1     | -   | -        | 1              | -                             | -                               | -                  | -          | -    | 1               | 1               | -    | 0    | -                     | 12        | -         | 2         | -               | 16 x 16 32 + 32      | POC, LVI, DMA, 放大器 x 3         | 1.8-5.5                        | 64-FBGA (6 x 6)  | QB-MINI2 (MINICUBE2)<br>QB-78K0RLX3 (IECUBE)  | 通用 (ALL FLASH)                                |                     |                 |
|               |               | μ PD78F1017    | 96        |               |                 |                      |                      |                   |       |          |        |        |       |     |          |                |                               |                                 |                    |            |      |                 |                 |      |      |                       |           |           |           |                 |                      |                                |                                |  |   |   | 6                   |                 |
|               |               | μ PD78F1018    | 128       |               |                 |                      |                      |                   |       |          |        |        |       |     |          |                |                               |                                 |                    |            |      |                 |                 |      |      |                       |           |           |           |                 |                      |                                |                                |  |   |   | 7                   |                 |
|               | 78K0R/KF3-C   | μ PD78F1846A * | 96        | Flash         | 0               | 6                    | 20 M, 8 M, 30 k      | 0                 | 71    | -/-      | 11     | 1      | 1     | -   | -        | 1              | 2                             | -                               | -                  | -          | -    | -               | 1               | -    | 0    | -                     | -         | 12        | -         | -               | 16 x 16 32 + 32      | POC, LVI, DMA, CEC收发器, 远程遥控接收器 | 2.7-5.5                        | 80-LQFP (12 x 12)  | 数字AV (ALL FLASH)                              |   |                     |                 |
|               |               | μ PD78F1847A * | 128       |               |                 |                      |                      |                   |       |          |        |        |       |     |          |                |                               |                                 |                    |            |      |                 |                 |      |      |                       |           |           |           |                 |                      |                                |                                |  |   | 8 <sup>注1</sup>                               |                     |                 |
|               | 78K0R/KG3-C   | μ PD78F1848A * | 96        | Flash         | 0               | 6                    | 20 M, 8 M, 30 k      | 0                 | 89    | -/-      | 11     | 1      | 1     | -   | -        | 1              | 2                             | -                               | -                  | -          | -    | -               | 1               | 1    | -    | 0                     | -         | -         | 16        | -               | -                    | 16 x 16 32 + 32                | POC, LVI, DMA, CEC收发器, 远程遥控接收器 | 2.7-5.5  | 100-LQFP (14 x 14)                            | QB-MINI2 (MINICUBE2)<br>QB-78K0RKX3C (IECUBE) | 通用 (ALL FLASH)      |                 |
|               |               | μ PD78F1849A * | 128       |               |                 |                      |                      |                   |       |          |        |        |       |     |          |                |                               |                                 |                    |            |      |                 |                 |      |      |                       |           |           |           |                 |                      |                                |                                |  |   |   |                     | 8 <sup>注1</sup> |
|               | μ PD78F8043   | μ PD78F8040 *  | 32        | Flash         | 0               | 4                    | 20 M, 8 M, 1 M, 30 k | -                 | 注2 26 | -/-      | 12     | -      | 1     | -   | -        | -              | 1                             | -                               | -                  | -          | -    | -               | 1 <sup>注3</sup> | 1    | 1    | -                     | 0         | -         | -         | 6               | -                    | -                              | 16 x 16 32 + 32                | POC, LVI, DMA, IO-Link收发器                                      | 3.0-5.5                                       | 56-WQFN (8 x 8)                               | 工业系统传感器 (ALL FLASH) |                 |
|               |               | μ PD78F8041 *  | 64        |               |                 |                      |                      |                   |       |          |        |        |       |     |          |                |                               |                                 |                    |            |      |                 |                 |      |      |                       |           |           |           |                 |                      |                                |                                |  |   |   |                     | 6               |
|               |               | μ PD78F8042 *  | 96        |               |                 |                      |                      |                   |       |          |        |        |       |     |          |                |                               |                                 |                    |            |      |                 |                 |      |      |                       |           |           |           |                 |                      |                                |                                |  |   |   |                     | 7               |
| μ PD78F8043 * |               | 128            | 7         |               |                 |                      |                      |                   |       |          |        |        |       |     |          |                |                               |                                 |                    |            |      |                 |                 |      |      |                       |           |           |           |                 |                      |                                |                                |  |   |   |                     |                 |
| μ PD78F8058   | μ PD78F8056 * | 64             | Flash     | 0             | 8 <sup>注1</sup> | 20 M, 8 M, 1 M, 30 k | 0                    | 注2 18             | -/-   | 12       | 1      | 1      | -     | -   | 1        | -              | -                             | -                               | -                  | -          | -    | 1 <sup>注5</sup> | -               | -    | 0    | -                     | -         | -         | -         | 16 x 16 32 + 32 | POC, LVI, DMA, RF收发器 | 1.8-3.6                        | 56-WQFN (8 x 8)                | QB-MINI2 (MINICUBE2)   | RF远程遥控 (ALL FLASH)                            |   |                     |                 |
|               | μ PD78F8057 * | 96             |           |               |                 |                      |                      |                   |       |          |        |        |       |     |          |                |                               |                                 |                    |            |      |                 |                 |      |      |                       |           |           |           |                 |                      |                                |                                |  |   | 8 <sup>注1</sup>                               |                     |                 |
|               | μ PD78F8058 * | 128            |           |               |                 |                      |                      |                   |       |          |        |        |       |     |          |                |                               |                                 |                    |            |      |                 |                 |      |      |                       |           |           |           |                 |                      |                                |                                |  |   | 8 <sup>注1</sup>                               |                     |                 |

注:  
 1. 使用自编程功能时为7KB。  
 2. 3个接口用来与IO-Link收发器连接。  
 3. IO-Link收发器和其内部通讯专用。  
 4. 4个接口用来与RF收发器连接。  
 5. RF收发器和其内部通讯专用。  
 6. 仅用于发送。

备注:  
 POC: 上电清零电路  
 LVI: 低电压检测电路

\* 开发中

78K0R系列16位单片微控制器

| 设备                 |                    |               | 存储器            |         |           | 时钟          |           | I/O                  | 总线    |           | 定时器    |       |        |  | 串行接口                                      |          |               |                              |                                 |                    | OCD       |           | 外围功能          |    |     |      |                       | 其他        |           | 应用       |                       |                                  |                                  |   |   |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------------------|--------------------|---------------|----------------|---------|-----------|-------------|-----------|----------------------|-------|-----------|--------|-------|--------|--|---|----------|---------------|------------------------------|---------------------------------|--------------------|-----------|-----------|---------------|----|-----|------|-----------------------|-----------|-----------|----------|-----------------------|----------------------------------|----------------------------------|---|---|--------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| CPU内核              | 商业名称               | 产品名称          | ROM容量[KB]      | 单电Flash | RAM容量[KB] | 最大工作频率[MHz] | 内部振荡器[Hz] | 副系统时钟(32.768 kHz)    | I/O端口 | 外部总线数据/地址 | 16位定时器 | 快速定时器 | 看门狗定时器 | PWM数目                                    | CSI                                       | CSI/UART | CSI/UART/增强FC | CSI: 2通道/UART: 1通道/增强FC: 2通道 | CSI: 2通道/UART: 1通道/LIN-bus: 1通道 | CSI: 2通道/增强FC: 1通道 | UART/增强FC | UART/增强FC | UART主机LIN-bus | FC | CAN | 片上测试 | LCD(segment x common) | 12位A/D转换器 | 12位D/A转换器 | 8位D/A转换器 | [bit x bit/bit + bit] | 乘/除法器                            | 其它功能                             | 电源电压[V]                                   | 封装尺寸 [mm]                                 | 在线仿真器              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 78K0R              | 78K0R/IB3          | μ PD78F1201   | 16             | Flash   | ○         | 1           | 20        | 40 M, 8 M, 30 k      | -     | -/-       | 12     | -     | 1      | PWM: 16位 x 4, 多路PWM: 16位 x 7 (6相16位 x 1) | -   | -        | -             | -                            | -                               | -                  | -         | 1         | -             | -  | ○   | -    | -                     | 6         | -         | -        | 16 x 16 32 ÷ 32       | POC, LVI, DMA, 比较器 x 2, 可编程增益放大器 | 2.7-5.5                          | 30-SSOP (7.62)                            | QB-MINI2 (MINICUBE2) QB-78K0RFX3 (IECUBE) | 变频控制 (ALL FLASH)   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    |                    | μ PD78F1203   | 32             | ○       | 1.5       |             |           |                      |       |           |        |       |        |  |   |          |               |                              |                                 |                    |           |           |               |    |     |      |                       |           |           |          |                       |                                  |                                  |   |   |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | 78K0R/IC3 (38-pin) | μ PD78F1211   | 16             | Flash   | ○         | 1           | 20        | 40 M, 8 M, 30 k      | ○     | -/-       | 12     | 1     | 1      | PWM: 16位 x 5, 多路PWM: 16位 x 9 (6相16位 x 1) | -   | -        | -             | -                            | -                               | -                  | -         | -         | 1             | 1  | -   | ○    | -                     | -         | -         | -        | 16 x 16 32 ÷ 32       | POC, LVI, DMA, 比较器 x 2, 可编程增益放大器 | 2.7-5.5                          | 38-SSOP (7.62)                            |   |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | μ PD78F1213        | 32            | 1.5            |         |           |             |           |                      |       |           |        |       |        |  |   |          |               |                              |                                 |                    |           |           |               |    |     |      |                       |           |           |          |                       |                                  |                                  |   |   |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | 78K0R/IC3 (44-pin) | μ PD78F1211   | 16             |         |           | 1           |           |                      |       |           |        |       |        |  |   |          |               |                              |                                 |                    |           |           |               |    |     |      |                       |           |           |          |                       |                                  |                                  |   |   |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | μ PD78F1213        | 32            | 1.5            |         |           |             |           |                      |       |           |        |       |        |  |   |          |               |                              |                                 |                    |           |           |               |    |     |      |                       |           |           |          |                       |                                  |                                  |   |   |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | 78K0R/IC3 (48-pin) | μ PD78F1213   | 32             |         |           | 1.5         |           |                      |       |           |        |       |        |  |   |          |               |                              |                                 |                    |           |           |               |    |     |      |                       |           |           |          |                       |                                  |                                  |   |   |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | μ PD78F1214        | 48            | 2              |         |           |             |           |                      |       |           |        |       |        |  |   |          |               |                              |                                 |                    |           |           |               |    |     |      |                       |           |           |          |                       |                                  |                                  |   |   |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | μ PD78F1215        | 64            | 3 <sup>注</sup> |         |           |             |           |                      |       |           |        |       |        |  |   |          |               |                              |                                 |                    |           |           |               |    |     |      |                       |           |           |          |                       |                                  |                                  |   |   |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | 78K0R/ID3          | μ PD78F1223   | 32             | Flash   | ○         | 1.5         | 20        | 40 M, 8 M, 30 k      | ○     | 45        | -/-    | 12    | 1      | 1  | PWM: 16位 x 5, 多路PWM: 16位 x 9 (6相16位 x 1)  | -        | -             | -                            | -                               | -                  | -         | -         | -             | 1  | -   | ○    | -                     | -         | 11        | -        | -                     | 16 x 16 32 ÷ 32                  | POC, LVI, DMA, 比较器 x 2, 可编程增益放大器 | 2.7-5.5                                   | 52-LQFP (10 x 10)                         |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | μ PD78F1224        | 48            | 2              |         |           |             |           |                      |       |           |        |       |        |  |   |          |               |                              |                                 |                    |           |           |               |    |     |      |                       |           |           |          |                       |                                  |                                  |   |   |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | μ PD78F1225        | 64            | 3 <sup>注</sup> |         |           |             |           |                      |       |           |        |       |        |  |   |          |               |                              |                                 |                    |           |           |               |    |     |      |                       |           |           |          |                       |                                  |                                  |   |   |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | 78K0R/IE3          | μ PD78F1233   | 32             | Flash   | ○         | 1.5         | 20        | 40 M, 8 M, 30 k      | ○     | 55        | -/-    | 12    | 1      | 1  | PWM: 16位 x 5, 多路PWM: 16位 x 11 (6相16位 x 1) | -        | -             | -                            | -                               | -                  | -         | -         | -             | 1  | -   | ○    | -                     | -         | 12        | -        | -                     | 16 x 16 32 ÷ 32                  | POC, LVI, DMA, 比较器 x 2, 可编程增益放大器 | 2.7-5.5                                   | 64-LQFP (10 x 10)                         |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | μ PD78F1234        | 48            | 2              |         |           |             |           |                      |       |           |        |       |        |  |   |          |               |                              |                                 |                    |           |           |               |    |     |      |                       |           |           |          |                       |                                  |                                  |   |   |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | μ PD78F1235        | 64            | 3 <sup>注</sup> |         |           |             |           |                      |       |           |        |       |        |  |   |          |               |                              |                                 |                    |           |           |               |    |     |      |                       |           |           |          |                       |                                  |                                  |   |   |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | 78K0R/LF3          | μ PD78F1500A  | 64             | Flash   | ○         | 4           | 20        | 20 M, 8 M, 1 M, 30 k | ○     | 51        | -/-    | 12    | 1      | 1  | PWM: 16位 x 3, 多路PWM: 16位 x 5              | -        | -             | -                            | -                               | -                  | -         | -         | -             | 1  | -   | ○    | -                     | 8         | -         | 2        | -                     | 16 x 16 32 ÷ 32                  | POC, LVI, DMA, 放大器 x 2           | 1.8-5.5                                   | 80-LQFP (12 x 12)                         |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | μ PD78F1501A       | 96            | 6              |         |           |             |           |                      |       |           |        |       |        |  |   |          |               |                              |                                 |                    |           |           |               |    |     |      |                       |           |           |          |                       |                                  |                                  |   |   |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | μ PD78F1502A       | 128           | 7              |         |           |             |           |                      |       |           |        |       |        |  |   |          |               |                              |                                 |                    |           |           |               |    |     |      |                       |           |           |          |                       |                                  |                                  |   |   |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | 78K0R/LG3          | μ PD78F1503A  | 64             | Flash   | ○         | 4           | 20        | 20 M, 8 M, 1 M, 30 k | ○     | 67        | -/-    | 12    | 1      | 1  | PWM: 16位 x 4, 多路PWM: 16位 x 7              | -        | 1             | -                            | -                               | -                  | -         | -         | -             | 1  | 1   | -    | ○                     | -         | 12        | -        | 2                     | -                                | 16 x 16 32 ÷ 32                  | POC, LVI, DMA, 放大器 x 3                    | 1.8-5.5                                   | 100-LQFP (14 x 14) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | μ PD78F1504A       | 96            | 6              |         |           |             |           |                      |       |           |        |       |        |  |   |          |               |                              |                                 |                    |           |           |               |    |     |      |                       |           |           |          |                       |                                  |                                  |   |   |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | μ PD78F1505A       | 128           | 7              |         |           |             |           |                      |       |           |        |       |        |  |   |          |               |                              |                                 |                    |           |           |               |    |     |      |                       |           |           |          |                       |                                  |                                  |   |   |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | 78K0R/LH3          | μ PD78F1506A  | 64             | Flash   | ○         | 4           | 20        | 20 M, 8 M, 30 k      | ○     | 83        | -/-    | 12    | 1      | 1  | PWM: 16位 x 6, 多路PWM: 16位 x 7, 16位 x 3     | -        | -             | 1                            | 2                               | -                  | -         | -         | -             | 1  | 1   | -    | ○                     | -         | 12        | -        | 2                     | -                                | 16 x 16 32 ÷ 32                  | POC, LVI, DMA, 放大器 x 3                    | 1.8-5.5                                   | 128-LQFP (14 x 20) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | μ PD78F1507A       | 96            | 6              |         |           |             |           |                      |       |           |        |       |        |  |   |          |               |                              |                                 |                    |           |           |               |    |     |      |                       |           |           |          |                       |                                  |                                  |   |   |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | μ PD78F1508A       | 128           | 7              |         |           |             |           |                      |       |           |        |       |        |  |   |          |               |                              |                                 |                    |           |           |               |    |     |      |                       |           |           |          |                       |                                  |                                  |   |   |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | 78K0R/FB3 (30-pin) | μ PD78F1804 * | 24             | Flash   | ○         | 1.5         | 24        | 8 M, 4 M             | -     | 23        | -/-    | 13    | -      | 1  | PWM: 16位 x 10, 多路PWM: 16位 x 7, 16位 x 3    | 2        | -             | -                            | -                               | -                  | -         | -         | -             | -  | 2   | -    | ○                     | -         | -         | 8        | -                     | -                                | 16 x 16 32 ÷ 32                  | POC, LVI, DMA, CLM, Flash数据: 16 KB, 电压调节器 | 2.7-5.5                                   | 30-SSOP (7.62)     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | μ PD78F1805 *      | 32            | 2              |         |           |             |           |                      |       |           |        |       |        |  |   |          |               |                              |                                 |                    |           |           |               |    |     |      |                       |           |           |          |                       |                                  |                                  |   |   |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | μ PD78F1806 *      | 48            | 3              |         |           |             |           |                      |       |           |        |       |        |  |   |          |               |                              |                                 |                    |           |           |               |    |     |      |                       |           |           |          |                       |                                  |                                  |   |   |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | μ PD78F1807 *      | 64            | 4              |         |           |             |           |                      |       |           |        |       |        |  |   |          |               |                              |                                 |                    |           |           |               |    |     |      |                       |           |           |          |                       |                                  |                                  |   |   |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | 78K0R/FB3 (32-pin) | μ PD78F1804 * | 24             | Flash   | ○         | 1.5         | 24        | 8 M, 4 M             | -     | 25        | -/-    | 13    | -      | 1  | PWM: 16位 x 10, 多路PWM: 16位 x 7, 16位 x 3    | 2        | -             | -                            | -                               | -                  | -         | -         | -             | -  | -   | 2    | -                     | ○         | -         | -        | 6                     | -                                | 16 x 16 32 ÷ 32                  | POC, LVI, DMA, CLM, Flash数据: 16 KB, 电压调节器 | 2.7-5.5                                   | 32-WQFN (5 x 5)    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | μ PD78F1805 *      | 32            | 2              |         |           |             |           |                      |       |           |        |       |        |  |   |          |               |                              |                                 |                    |           |           |               |    |     |      |                       |           |           |          |                       |                                  |                                  |   |   |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| μ PD78F1806 *      | 48                 | 3             |                |         |           |             |           |                      |       |           |        |       |        |  |   |          |               |                              |                                 |                    |           |           |               |    |     |      |                       |           |           |          |                       |                                  |                                  |   |   |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| μ PD78F1807 *      | 64                 | 4             |                |         |           |             |           |                      |       |           |        |       |        |  |   |          |               |                              |                                 |                    |           |           |               |    |     |      |                       |           |           |          |                       |                                  |                                  |   |   |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 78K0R/FC3 (40-pin) | μ PD78F1808 *      | 24            | Flash          | ○       | 1.5       | 24          | 8 M, 4 M  | -                    | 33    | -/-       | 16     | -     | 1      | PWM: 16位 x 14, 多路PWM: 16位 x 7, 16位 x 7   | 1   | -        | -             | -                            | -                               | -                  | -         | -         | -             | -  | 2   | -    | ○                     | -         | -         | 8        | -                     | -                                | 16 x 16 32 ÷ 32                  | POC, LVI, DMA, CLM, Flash数据: 16 KB, 电压调节器 | 2.7-5.5                                   | 40-WQFN (6 x 6)    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| μ PD78F1809 *      | 32                 | 2             |                |         |           |             |           |                      |       |           |        |       |        |  |   |          |               |                              |                                 |                    |           |           |               |    |     |      |                       |           |           |          |                       |                                  |                                  |   |   |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| μ PD78F1810 *      | 48                 | 3             |                |         |           |             |           |                      |       |           |        |       |        |  |   |          |               |                              |                                 |                    |           |           |               |    |     |      |                       |           |           |          |                       |                                  |                                  |   |   |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| μ PD78F1811 *      | 64                 | 4             |                |         |           |             |           |                      |       |           |        |       |        |  |   |          |               |                              |                                 |                    |           |           |               |    |     |      |                       |           |           |          |                       |                                  |                                  |   |   |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

注: 使用自编程功能时为2KB。

备注: POC: 上电清零电路  
LVI: 低电压检测电路  
CLM: 时钟监视器

\* 开发中



V850系列32位单片微控制器

| 设备          |             |             | 存储器         |         |           | 时钟          |           | I/O        | 总线     | 定时器   |       |        |       | 串行接口                 |                      |          |                  |          |                  |          |                  |          |                  | OCD      | 外围功能             |          |                  |          | 其他               |      | 应用                               |                                  |                                  |  |  |           |                    |     |
|-------------|-------------|-------------|-------------|---------|-----------|-------------|-----------|------------|--------|-------|-------|--------|-------|----------------------|----------------------|----------|------------------|----------|------------------|----------|------------------|----------|------------------|----------|------------------|----------|------------------|----------|------------------|------|----------------------------------|----------------------------------|----------------------------------|--|--|-----------|--------------------|-----|
| CPU内核       | 商业名称        | 产品名称        | ROM容量[KB]   | 单电Flash | RAM容量[KB] | 最大工作频率[MHz] | 内部振荡器[Hz] | 外部总线地址/地址  | 16位定时器 | 8位定时器 | 其它定时器 | 看门狗定时器 | PWM单元 | UART/CSI             | UART/CSI LIN-bus     | UART/CSI | UART/CSI LIN-bus | UART/CSI | UART/CSI LIN-bus | UART/CSI | UART/CSI LIN-bus | UART/CSI | UART/CSI LIN-bus | UART/CSI | UART/CSI LIN-bus | UART/CSI | UART/CSI LIN-bus | UART/CSI | UART/CSI LIN-bus | 其它功能 |                                  | 电源电压[V]                          | 封装尺寸 [mm]                        | 在线仿真器  |  |           |                    |     |
| V850ES      | V850ES/HE2  | μ PD70F3700 | 64          | Flash   | 0         | 6           | 200 k     | 51         | -/-    | 6     | -     | 1      | 1     | 16位 x 7              | -                    | 2        | -                | -        | -                | -        | 2                | -        | -                | -        | -                | -        | -                | 0        | -                | -    | 10                               | -                                | POC, LVI, CLM                    | 3.5-5.5  | 64-LQFP (10 x 10)                        | ALL FLASH |                    |     |
|             |             | μ PD70F3701 | 128         | Flash   | 0         | 12          | 200 k     | 67         | -/-    | 6     | -     | 1      | 1     | 16位 x 7              | -                    | 2        | -                | -        | -                | -        | 2                | -        | -                | -        | -                | -        | -                | 0        | -                | -    | 12                               | -                                | POC, LVI, CLM                    | 3.5-5.5  | 80-TQFP (12 x 12)                        |           |                    |     |
|             | V850ES/HF2  | μ PD70F3702 | 64          | Flash   | 0         | 12          | 200 k     | 67         | -/-    | 6     | -     | 1      | 1     | 16位 x 7              | -                    | 2        | -                | -        | -                | -        | 2                | -        | -                | -        | -                | -        | -                | 0        | -                | -    | 12                               | -                                | POC, LVI, CLM                    | 3.5-5.5  | 80-TQFP (12 x 12)                        |           |                    |     |
|             |             | μ PD70F3703 | 128         | Flash   | 0         | 12          | 200 k     | 67         | -/-    | 6     | -     | 1      | 1     | 16位 x 7              | -                    | 2        | -                | -        | -                | -        | 2                | -        | -                | -        | -                | -        | -                | 0        | -                | -    | 12                               | -                                | POC, LVI, CLM                    | 3.5-5.5  | 80-TQFP (12 x 12)                        |           |                    |     |
|             | V850ES/HG2  | μ PD70F3704 | 256         | Flash   | 0         | 12          | 200 k     | 67         | -/-    | 6     | -     | 1      | 1     | 16位 x 7              | -                    | 2        | -                | -        | -                | -        | 2                | -        | -                | -        | -                | -        | -                | 0        | -                | -    | 12                               | -                                | POC, LVI, CLM                    | 3.5-5.5  | 80-TQFP (12 x 12)                        |           |                    |     |
|             |             | μ PD70F3706 | 128         | Flash   | 0         | 12          | 200 k     | 84         | -/-    | 7     | -     | 1      | 1     | 16位 x 10             | -                    | 3        | -                | -        | -                | -        | 2                | -        | -                | -        | -                | -        | -                | 0        | -                | -    | 16                               | -                                | POC, LVI, CLM, DMA               | 3.5-5.5  | 100-LQFP (14 x 14)                       |           |                    |     |
|             | V850ES/HJ2  | μ PD70F3707 | 256         | Flash   | 0         | 12          | 200 k     | 128        | 16/16  | 8     | -     | 1      | 1     | 16位 x 13             | -                    | 3        | -                | -        | -                | -        | 3                | -        | -                | -        | -                | -        | -                | -        | 0                | -    | -                                | 24                               | -                                | POC, LVI, CLM, DMA                             | 3.5-5.5                                  |           | 144-LQFP (20 x 20) |     |
|             |             |             | μ PD70F3709 |         |           |             |           |            |        |       |       |        |       |                      |                      |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |      |                                  |                                  |                                  |  |  |           |                    | 128 |
|             |             |             | μ PD70F3710 |         |           |             |           |            |        |       |       |        |       |                      |                      |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |      |                                  |                                  |                                  |  |  |           |                    | 256 |
|             |             |             | μ PD70F3711 |         |           |             |           |            |        |       |       |        |       |                      |                      |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |      |                                  |                                  |                                  |  |  |           |                    | 376 |
|             | V850ES/HJ2  | μ PD70F3712 | 512         | Flash   | 0         | 20          | 200 k     | 128        | 16/16  | 8     | -     | 1      | 1     | 16位 x 13             | -                    | 4        | -                | -        | -                | -        | 3                | -        | -                | -        | -                | -        | -                | 0        | -                | -    | 24                               | -                                | POC, LVI, CLM, DMA               | 3.5-5.5  | 144-LQFP (20 x 20)                       |           |                    |     |
|             |             |             | μ PD70F3712 |         |           |             |           |            |        |       |       |        |       |                      |                      |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |      |                                  |                                  |                                  |  |  |           | 512                |     |
| V850ES/HE3  | V850ES/HE3  | μ PD70F3747 | 128         | Flash   | 0         | 8           | 32        | 20 M, 8 M, | 51     | -/-   | 7     | -      | 1     | 1                    | 16位 x 8 (6相16位 x 1)  | -        | 2                | -        | -                | -        | 2                | -        | -                | 1        | -                | -        | -                | 0        | -                | -    | 10                               | -                                | POC, LVI, CLM, DMA               | 3.7-5.5  | 64-LQFP (10 x 10)                        |           |                    |     |
|             |             | μ PD70F3750 | 256         | Flash   | 0         | 16          | 32        | 20 M, 8 M, | 67     | -/-   | 7     | -      | 1     | 1                    | 16位 x 8 (6相16位 x 1)  | -        | 2                | -        | -                | -        | 2                | -        | -                | 1        | -                | -        | -                | 0        | -                | -    | 12                               | -                                | POC, LVI, CLM, DMA               | 3.7-5.5  | 80-LQFP (12 x 12)                        |           |                    |     |
|             | V850ES/HG3  | μ PD70F3752 | 256         | Flash   | 0         | 16          | 32        | 20 M, 8 M, | 84     | -/-   | 8     | -      | 1     | 1                    | 16位 x 11 (6相16位 x 1) | -        | 3                | -        | -                | -        | 2                | -        | -                | 1        | -                | -        | -                | 0        | -                | -    | 16                               | -                                | POC, LVI, CLM, DMA               | 3.7-5.5  | 100-LQFP (14 x 14)                       |           |                    |     |
|             |             |             | μ PD70F3755 |         |           |             |           |            |        |       |       |        |       |                      |                      |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |      |                                  |                                  |                                  |  |  | 256       |                    |     |
|             | V850ES/HJ3  | μ PD70F3757 | 512         | Flash   | 0         | 32          | 32        | 20 M, 8 M, | 128    | 16/16 | 9     | -      | 1     | 1                    | 16位 x 14 (6相16位 x 1) | -        | 3                | -        | -                | -        | 2                | -        | -                | 1        | -                | -        | -                | 0        | -                | -    | 24                               | -                                | POC, LVI, CLM, DMA               | 3.7-5.5  | 144-LQFP (20 x 20)                       |           |                    |     |
|             |             |             | μ PD70F3757 |         |           |             |           |            |        |       |       |        |       |                      |                      |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |      |                                  |                                  |                                  |  |  | 512       |                    |     |
| V850ES/IE2  | μ PD70F3713 | 64          | Flash       | 0       | 6         | 20          | -         | 39         | -/-    | 7     | -     | -      | -     | 16位 x 6 (6相16位 x 1)  | 1                    | -        | -                | -        | -                | 2        | -                | -        | -                | -        | -                | -        | 0                | -        | -                | 4+4  | -                                | POC, LVI                         | 3.5-5.5                          | 64-LQFP (14 x 14)                              |  |           |                    |     |
|             |             | μ PD70F3714 |             |         |           |             |           |            |        |       |       |        |       |                      |                      |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |      |                                  |                                  |                                  |  | 128                                      |           |                    |     |
| V850E1      | V850E/IF3   | μ PD70F3451 | 128         | Flash   | 0         | 8           | 64        | -          | 48     | -/-   | 13    | -      | -     | 1                    | 16位 x 9 (6相16位 x 2)  | -        | 3                | -        | 1                | -        | -                | -        | -                | -        | -                | -        | 0                | -        | 5+5              | 4    | -                                | POC, LVI, DMA, 放大器, 比较器          | 3.5-5.5                          | 80-LQFP (14 x 14)                              |  |           |                    |     |
|             |             | μ PD70F3452 | 256         |         |           |             |           |            |        |       |       |        |       |                      |                      |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |      |                                  |                                  |                                  |  |  |           |                    |     |
|             | V850E/IG3   | μ PD70F3453 | 128         | Flash   | 0         | 8           | 64        | -          | 64     | -/-   | 13    | -      | -     | 1                    | 16位 x 11 (6相16位 x 2) | -        | 3                | -        | 1                | -        | -                | -        | -                | -        | -                | -        | 0                | -        | 5+5              | 8    | -                                | POC, LVI, DMA, 放大器, 比较器          | 3.5-5.5                          | 100-LQFP (14 x 14)<br>100-LQFP (14 x 20)<br>注3 | 161-FBGA (10 x 10)                       |           |                    |     |
|             |             |             | μ PD70F3454 |         |           |             |           |            |        |       |       |        |       |                      |                      |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |      |                                  |                                  |                                  |  |  | 256       |                    |     |
|             | V850E/IG4   | μ PD70F3913 | 256         | Flash   | 0         | 24          | 100       | -          | 55     | -/-   | 13    | -      | -     | -                    | 16位 x 13 (6相16位 x 2) | -        | 3                | -        | 1                | -        | -                | -        | -                | -        | -                | -        | -                | 0        | -                | 4+3  | 12                               | -                                | POC, LVI, CLM, DMA, 放大器 x 6, 比较器 | 1.5/5.0  | 100-LQFP (14 x 14)<br>100-LQFP (14 x 20) |           |                    |     |
|             |             |             | μ PD70F3914 |         |           |             |           |            |        |       |       |        |       |                      |                      |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |      |                                  |                                  |                                  |  |  | 384       |                    |     |
|             |             |             | μ PD70F3915 |         |           |             |           |            |        |       |       |        |       |                      |                      |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |      |                                  |                                  |                                  |  |  | 480       |                    |     |
|             | V850E/IH4   | μ PD70F3916 | 256         | Flash   | 0         | 24          | 100       | -          | 68     | -/-   | 13    | -      | -     | -                    | 16位 x 13 (6相16位 x 2) | -        | 3                | -        | 1                | -        | -                | -        | -                | -        | -                | -        | -                | 0        | -                | 4+4  | 12                               | -                                | POC, LVI, CLM, DMA, 放大器 x 6, 比较器 | 1.5/5.0  | 128-LQFP (14 x 20)                       |           |                    |     |
|             |             |             | μ PD70F3917 |         |           |             |           |            |        |       |       |        |       |                      |                      |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |      |                                  |                                  |                                  |  |  | 384       |                    |     |
|             |             |             | μ PD70F3918 |         |           |             |           |            |        |       |       |        |       |                      |                      |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |      |                                  |                                  |                                  |  |  | 480       |                    |     |
|             | V850E/IG4-H | μ PD70F3919 | 256         | Flash   | 0         | 24          | 100       | -          | 51     | 16/16 | 13    | -      | -     | -                    | 16位 x 10 (6相16位 x 1) | -        | 3                | -        | 1                | -        | -                | -        | -                | -        | -                | -        | 0                | -        | 4+3              | 12   | -                                | POC, LVI, CLM, DMA, 放大器 x 6, 比较器 | 1.5/5.0/3.3                      | 100-LQFP (14 x 14)                             |  |           |                    |     |
|             |             |             | μ PD70F3920 |         |           |             |           |            |        |       |       |        |       |                      |                      |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |      |                                  |                                  |                                  |  | 384                                      |           |                    |     |
| μ PD70F3921 |             |             | 480         |         |           |             |           |            |        |       |       |        |       |                      |                      |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |      |                                  |                                  |                                  |  |  |           |                    |     |
| V850E/IH4-H | μ PD70F3922 | 256         | Flash       | 0       | 24        | 100         | -         | 68         | 16/16  | 13    | -     | -      | -     | 16位 x 13 (6相16位 x 2) | -                    | 3        | -                | 1        | -                | -        | -                | -        | -                | -        | -                | 0        | -                | 4+4      | 12               | -    | POC, LVI, CLM, DMA, 放大器 x 6, 比较器 | 1.5/5.0/3.3                      | 128-LQFP (14 x 20)               |  |  |           |                    |     |
|             |             | μ PD70F3923 |             |         |           |             |           |            |        |       |       |        |       |                      |                      |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |      |                                  |                                  |                                  | 384  |  |           |                    |     |
|             |             | μ PD70F3924 |             |         |           |             |           |            |        |       |       |        |       |                      |                      |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |          |                  |      |                                  |                                  |                                  | 480  |  |           |                    |     |

注:  
 1. μ PD70F3757提供6个UART通道。  
 2. 仅限 μ PD70F3454的14 x 14 mm封装  
 3. 仅 μ PD70F3454

备注:  
 POC: 上电清零电路  
 LVI: 低电压检测电路  
 CLM: 时钟监视器



V850系列32位单片微控制器

| CPU内核        | 设备           |             | 存储器       |       |                 |                 | 时钟          |            | I/O 总线             |       | 定时器      |        |              |              |        |                         |                         | 串行接口     |                |         |                |                |                |                |                |                |                |                | OCD            |                                       | 外围功能                                  |                                 |                                 |   | 其他                 |   | 应用  |
|--------------|--------------|-------------|-----------|-------|-----------------|-----------------|-------------|------------|--------------------|-------|----------|--------|--------------|--------------|--------|-------------------------|-------------------------|----------|----------------|---------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------------------------------|---------------------------------------|---------------------------------|---------------------------------|---|--------------------|---|---|
|              | 商业名称         | 产品名称        | ROM容量[KB] | ROM架构 | 串行Flash         | RAM容量[KB]       | 最大工作频率[MHz] | 内部振荡器 [Hz] | 晶体振荡器 [32.768 kHz] | I/O接口 | 外部总线数据地址 | 16位定时器 | 8位定时器        | 其他定时器        | 看门狗定时器 | PWM单元                   | UART                    | UART/CSI | UART/CSI/IEBus | UART/PC | UART/CSI/IEBus | UART/CSI/IEBus | UART/CSI/IEBus | UART/CSI/IEBus | UART/CSI/IEBus | UART/CSI/IEBus | UART/CSI/IEBus | UART/CSI/IEBus | UART/CSI/IEBus | UART/CSI/IEBus                        | 其它功能                                  | 其它功能                            | 其它功能                            | 其它功能  | 电源电压[V]            | 封装尺寸 [mm]                               |   |
| V850ES       | V850ES/JG2   | μ PD70F3715 | 128       | Flash | O               | 12              | 20          | 200 k      | O                  | 84    | 16/22    | 8      |              |              | 1      | 1                       | 16位 x 9                 |          |                |         |                |                |                |                |                |                |                |                |                |                                       |                                       |                                 |                                 | LVI, CLM, DMA   | 2.85-3.6           | 100-LQFP (14 x 14)<br>100-QFP (14 x 20) | QB-MINI2 (MINICUBE2)<br>QB-V850MINI (MINICUBE)<br>QB-V850ESSX2 (IECUBE) |
|              |              | μ PD70F3716 | 256       |       |                 | 24              |             |            |                    |       |          |        |              |              |        |                         |                         |          |                |         |                |                |                |                |                |                |                |                |                |                                       |                                       |                                 |                                 |   |                    |   |   |
|              |              | μ PD70F3717 | 384       |       |                 | 32              |             |            |                    |       |          |        |              |              |        |                         |                         |          |                |         |                |                |                |                |                |                |                |                |                |                                       |                                       |                                 |                                 |   |                    |   |   |
|              |              | μ PD70F3718 | 512       |       |                 | 40              |             |            |                    |       |          |        |              |              |        |                         |                         |          |                |         |                |                |                |                |                |                |                |                |                |                                       |                                       |                                 |                                 |   |                    |   |   |
|              |              | μ PD70F3719 | 640       |       |                 | 48              |             |            |                    |       |          |        |              |              |        |                         |                         |          |                |         |                |                |                |                |                |                |                |                |                |                                       |                                       |                                 |                                 |   |                    |   |   |
|              | V850ES/JJ2   | μ PD70F3720 | 128       | Flash | O               | 12              | 20          | 200 k      | O                  | 128   | 16/24    | 11     |              |              | 1      | 1                       | 16位 x 12                |          | 1              |         |                |                |                |                |                |                |                |                |                |                                       |                                       |                                 | LVI, CLM, DMA                   | 2.85-3.6  | 144-LQFP (20 x 20) |   |   |
|              |              | μ PD70F3721 | 256       |       |                 | 24              |             |            |                    |       |          |        |              |              |        |                         |                         |          |                |         |                |                |                |                |                |                |                |                |                |                                       |                                       |                                 |                                 |   |                    |   |   |
|              |              | μ PD70F3722 | 384       |       |                 | 32              |             |            |                    |       |          |        |              |              |        |                         |                         |          |                |         |                |                |                |                |                |                |                |                |                |                                       |                                       |                                 |                                 |   |                    |   |   |
|              |              | μ PD70F3723 | 512       |       |                 | 40              |             |            |                    |       |          |        |              |              |        |                         |                         |          |                |         |                |                |                |                |                |                |                |                |                |                                       |                                       |                                 |                                 |   |                    |   |   |
|              | V850ES/JF3-L | μ PD70F3724 | 640       | Flash | O               | 48              | 20          | 220 k      | O                  | 66    | 16/18    | 6      |              |              | 1      | 1                       | 16位 x 7                 |          | 2              |         |                |                |                |                |                |                |                |                |                |                                       |                                       | LVI, CLM, DMA, CRC              | 2.2-3.6                         | 80-LQFP(12 x 12)<br>80-LQFP(14 x 14)                      |                    |   |   |
|              |              | μ PD70F3735 | 128       |       |                 | 8               |             |            |                    |       |          |        |              |              |        |                         |                         |          |                |         |                |                |                |                |                |                |                |                |                |                                       |                                       |                                 |                                 |   |                    |   |   |
|              |              | μ PD70F3736 | 256       |       |                 | 16              |             |            |                    |       |          |        |              |              |        |                         |                         |          |                |         |                |                |                |                |                |                |                |                |                |                                       |                                       |                                 |                                 |   |                    |   |   |
|              | V850ES/JG3-L | μ PD70F3737 | 128       | Flash | O               | 8               | 20          | 220 k      | O                  | 84    | 16/22    | 8      |              |              | 1      | 1                       | 16位 x 9                 |          |                |         |                |                |                |                |                |                |                |                |                |                                       |                                       | LVI, CLM, DMA, CRC              | 2.2-3.6                         | 100-LQFP(14 x 14)<br>100-LQFP(14 x 20)<br>121-FBGA(8 x 8) |                    |   |   |
|              |              | μ PD70F3738 | 256       |       |                 | 16              |             |            |                    |       |          |        |              |              |        |                         |                         |          |                |         |                |                |                |                |                |                |                |                |                |                                       |                                       |                                 |                                 |   |                    |   |   |
|              | V850ES/JG3   | μ PD70F3739 | 384       | Flash | O               | 32              | 32          | 220 k      | O                  | 84    | 16/22    | 8      |              |              | 1      | 1                       | 16位 x 9                 |          |                |         |                |                |                |                |                |                |                |                |                |                                       |                                       |                                 |                                 | LVI, CLM, DMA, CRC  | 2.85-3.6           | 100-LQFP (14 x 14)                      |   |
|              |              | μ PD70F3740 | 512       |       |                 | 40              |             |            |                    |       |          |        |              |              |        |                         |                         |          |                |         |                |                |                |                |                |                |                |                |                |                                       |                                       |                                 |                                 |   |                    |   |   |
|              |              | μ PD70F3741 | 768       |       |                 | 60              |             |            |                    |       |          |        |              |              |        |                         |                         |          |                |         |                |                |                |                |                |                |                |                |                |                                       |                                       |                                 |                                 |   |                    |   |   |
|              |              | μ PD70F3742 | 1024      |       |                 | 60              |             |            |                    |       |          |        |              |              |        |                         |                         |          |                |         |                |                |                |                |                |                |                |                |                |                                       |                                       |                                 |                                 |   |                    |   |   |
|              | V850ES/JJ3   | μ PD70F3743 | 384       | Flash | O               | 32              | 32          | 220 k      | O                  | 128   | 16/24    | 11     |              |              | 1      | 1                       | 16位 x 12                |          | 1              |         |                |                |                |                |                |                |                |                |                |                                       |                                       |                                 | LVI, CLM, DMA, CRC              | 2.85-3.6  | 144-LQFP (20 x 20) |   |   |
|              |              | μ PD70F3744 | 512       |       |                 | 40              |             |            |                    |       |          |        |              |              |        |                         |                         |          |                |         |                |                |                |                |                |                |                |                |                |                                       |                                       |                                 |                                 |   |                    |   |   |
|              |              | μ PD70F3745 | 768       |       |                 | 60              |             |            |                    |       |          |        |              |              |        |                         |                         |          |                |         |                |                |                |                |                |                |                |                |                |                                       |                                       |                                 |                                 |   |                    |   |   |
|              |              | μ PD70F3746 | 1024      |       |                 | 60              |             |            |                    |       |          |        |              |              |        |                         |                         |          |                |         |                |                |                |                |                |                |                |                |                |                                       |                                       |                                 |                                 |   |                    |   |   |
|              | V850ES/JG3-H | μ PD70F3760 | 256       | Flash | O               | 40 <sup>≠</sup> | 48          | 220 k      | O                  | 77    | 16/16    | 13     |              | 实时定时器<br>计数器 | 1      | 1                       | 16位 x 12<br>(6相16位 x 1) |          |                |         |                |                |                |                |                |                |                |                |                |                                       |                                       |                                 | LVI, CLM, DMA, CRC,<br>USB2.0功能 | 2.85-3.6  | 100-LQFP (14 x 14) |   |   |
|              |              | μ PD70F3761 | 384       |       |                 | 48 <sup>≠</sup> |             |            |                    |       |          |        |              |              |        |                         |                         |          |                |         |                |                |                |                |                |                |                |                |                |                                       |                                       |                                 |                                 |   |                    |   |   |
|              |              | μ PD70F3762 | 512       |       |                 | 56 <sup>≠</sup> |             |            |                    |       |          |        |              |              |        |                         |                         |          |                |         |                |                |                |                |                |                |                |                |                |                                       |                                       |                                 |                                 |   |                    |   |   |
|              |              | μ PD70F3770 | 256       |       |                 | 40 <sup>≠</sup> |             |            |                    |       |          |        |              |              |        |                         |                         |          |                |         |                |                |                |                |                |                |                |                |                |                                       |                                       |                                 |                                 |   |                    |   |   |
|              | V850ES/JH3-H | μ PD70F3765 | 256       | Flash | O               | 40 <sup>≠</sup> | 48          | 220 k      | O                  | 96    | 16/24    | 13     |              | 实时定时器<br>计数器 |        |                         | 16位 x 12<br>(6相16位 x 1) |          |                |         |                |                |                |                |                |                |                |                |                |                                       |                                       | LVI, CLM, DMA, CRC,<br>USB2.0功能 | 2.85-3.6                        | 128-LQFP (14 x 20)  |                    |   |   |
|              |              | μ PD70F3766 | 384       |       |                 | 48 <sup>≠</sup> |             |            |                    |       |          |        |              |              |        |                         |                         |          |                |         |                |                |                |                |                |                |                |                |                |                                       |                                       |                                 |                                 |   |                    |   |   |
|              |              | μ PD70F3767 | 512       |       |                 | 56 <sup>≠</sup> |             |            |                    |       |          |        |              |              |        |                         |                         |          |                |         |                |                |                |                |                |                |                |                |                |                                       |                                       |                                 |                                 |   |                    |   |   |
|              |              | μ PD70F3771 | 256       |       |                 | 40 <sup>≠</sup> |             |            |                    |       |          |        |              |              |        |                         |                         |          |                |         |                |                |                |                |                |                |                |                |                |                                       |                                       |                                 |                                 |   |                    |   |   |
| V850ES/JG3-U | μ PD70F3763  | 384         | Flash     | O     | 48 <sup>≠</sup> | 48              | 220 k       | O          | 75                 | 16/16 | 13       |        | 实时定时器<br>计数器 |              |        | 16位 x 12<br>(6相16位 x 1) |                         |          |                |         |                |                |                |                |                |                |                |                |                |                                       | LVI, CLM, DMA, CRC,<br>USB2.0<br>主机功能 | 2.85-3.6                        | 100-LQFP (14 x 14)              |   |                    |   |   |
|              | μ PD70F3764  | 512         |           |       | 56 <sup>≠</sup> |                 |             |            |                    |       |          |        |              |              |        |                         |                         |          |                |         |                |                |                |                |                |                |                |                |                |                                       |                                       |                                 |                                 |   |                    |   |   |
| V850ES/JH3-U | μ PD70F3768  | 384         | Flash     | O     | 48 <sup>≠</sup> | 48              | 220 k       | O          | 96                 | 16/24 | 13       |        | 实时定时器<br>计数器 |              |        | 16位 x 12<br>(6相16位 x 1) |                         |          |                |         |                |                |                |                |                |                |                |                |                | LVI, CLM, DMA, CRC,<br>USB2.0<br>主机功能 | 2.85-3.6                              | 128-LQFP (14 x 20)              |                                 |   |                    |   |   |
|              | μ PD70F3769  | 512         |           |       | 56 <sup>≠</sup> |                 |             |            |                    |       |          |        |              |              |        |                         |                         |          |                |         |                |                |                |                |                |                |                |                |                |                                       |                                       |                                 |                                 |   |                    |   |   |

注: 8KB是数据专用RAM。

备注: LVI: 低电压检测电路  
CLM: 时钟监视器

# V850系列32位单片微控制器

| 设备          |                |                | 存储器         |       |         | 时钟               |              | I/O 总线     |                   |        |          | 定时器    |       |              |        |                    |                         | 串行接口 |                 |                  |                  |                  |     |        | OCD          | 外围功能 |       |     |           | 其他                  |      | 应用 |                       |           |                             |          |   |  |  |   |
|-------------|----------------|----------------|-------------|-------|---------|------------------|--------------|------------|-------------------|--------|----------|--------|-------|--------------|--------|--------------------|-------------------------|------|-----------------|------------------|------------------|------------------|-----|--------|--------------|------|-------|-----|-----------|---------------------|------|----|-----------------------|-----------|-----------------------------|----------|---|--|--|---|
| CPU内核       | 商业名称           | 产品名称           | ROM(字节)[KB] | ROM类型 | 掩码Flash | RAM(字节)[KB]      | 最大工作频率 [MHz] | 内部振荡器 [Hz] | 副振荡器 (32.768 kHz) | I/O 端口 | 外部总线数据地址 | 16位定时器 | 8位定时器 | 其他定时器        | 看门狗定时器 | 钟表定时器              | PWM/SSB                 | UART | UART/CSI        | UART/CSI+LIN-bus | UART/CSI+LIN-bus | UART/FCR+LIN-bus | CSI | CSI/IC | CSI(高级)/兼容功能 | PC   | IEBus | CAN | CAN/IEBus | UART/IC/CAN+LIN-bus | 开上通信 |    | LCID segment x common | 12位A/D转换器 | 10位A/D转换器                   | 8位D/A转换器 | 其它功能  | 电源电压 [V]   | 封装尺寸 [mm]                                    | 在线仿真器<br>在仿真器   |
| V850ES      | V850ES/JH3-E   | μ PD70F3778    | 256         | Flash | O       | 76 <sup>※1</sup> | 50           | 220 k      | O                 | 84     | 16/22    | 13     | -     | 实时定时器<br>计数器 | -      | 1                  | 16位 x 12<br>(6相16位 x 1) | -    | 2               | 2                | -                | 1                | 3   | 1      | -            | -    | -     | -   | -         | -                   | -    | O  | -                     | -         | 10                          | -        | LVI, CLM, DMA,<br>CRC,<br>USB2.0功能,<br>以太网控制器 | 2.85-3.6   | 128-LQFP<br>(14 x 20)                        | QB-MINI2<br>(MINICUBE2)<br>QB-V850MINI<br>(MINICUBE)<br>QB-V850ESJX3E<br>(IECUBE) |
|             |                | μ PD70F3779    | 384         |       |         |                  |              |            |                   |        |          |        |       |              |        |                    |                         |      |                 |                  |                  |                  |     |        |              |      |       |     |           |                     |      |    |                       |           |                             |          |   |  |  |   |
|             |                | μ PD70F3780    | 512         |       |         |                  |              |            |                   |        |          |        |       |              |        |                    |                         |      |                 |                  |                  |                  |     |        |              |      |       |     |           |                     |      |    |                       |           |                             |          |   |  |  |   |
|             |                | μ PD70F3781    | 384         |       |         |                  |              |            |                   |        |          |        |       |              |        |                    |                         |      |                 |                  |                  |                  |     |        |              |      |       |     |           |                     |      |    |                       |           |                             |          |   |  |  |   |
|             |                | μ PD70F3782    | 512         |       |         |                  |              |            |                   |        |          |        |       |              |        |                    |                         |      |                 |                  |                  |                  |     |        |              |      |       |     |           |                     |      |    |                       |           |                             |          |   |  |  |   |
|             | μ PD70F3783    | 512            |             |       |         |                  |              |            |                   |        |          |        |       |              |        |                    |                         |      |                 |                  |                  |                  |     |        |              |      |       |     |           |                     |      |    |                       |           |                             |          |   |  |  |   |
|             | V850ES/JJ3-E   | μ PD70F3784    | 512         | Flash | O       | 注2<br>124        | 50           | 220 k      | O                 | 100    | 16/24    | 13     | -     | 实时定时器<br>计数器 | 1      | 1                  | 16位 x 13<br>(6相16位 x 1) | -    | 2               | 4                | -                | -                | 1   | 3      | 1            | -    | -     | 1   | -         | -                   | -    | -  | O                     | -         | -                           | 12       | -   | LVI, CLM, DMA,<br>CRC,<br>USB2功能,<br>以太网控制器  | 2.85-3.6                                     | 144-LQFP<br>(20 x 20)   |
|             |                | μ PD70F3785    |             |       |         |                  |              |            |                   |        |          |        |       |              |        |                    |                         |      |                 |                  |                  |                  |     |        |              |      |       |     |           |                     |      |    |                       |           |                             |          |   |  |  |   |
|             |                | μ PD70F3786    |             |       |         |                  |              |            |                   |        |          |        |       |              |        |                    |                         |      |                 |                  |                  |                  |     |        |              |      |       |     |           |                     |      |    |                       |           |                             |          |   |  |  |   |
|             | V850ES/KE2     | μ PD70F3726    | 128         | Flash | O       | 4                | 20           | -          | O                 | 51     | -/-      | 2      | 5     | -            | 1      | 2                  | 16位 x 2,<br>8位 x 4      | 2    | -               | -                | -                | -                | -   | -      | -            | -    | -     | -   | -         | O                   | -    | -  | 8                     | -         | -                           | 2.7-5.5  | 64-LQFP<br>(10 x 10)                          | QB-MINI2<br>(MINICUBE2)<br>QB-V850MINI<br>(MINICUBE) +<br>QB-V850ESKX1H-DA<br>(IECUBE) |  |   |
|             | V850ES/KF2     | μ PD70F3728    | 128         | Flash | O       | 6                | 20           | -          | O                 | 67     | 16/16    | 3      | 5     | -            | 1      | 2                  | 16位 x 3,<br>8位 x 4      | 2    | -               | -                | -                | -                | -   | -      | -            | -    | -     | -   | -         | O                   | -    | -  | 8                     | -         | -                           | 2.7-5.5  | 80-QFP<br>(14 x 14)                           |  |  |   |
|             |                | μ PD70F3729    | 256         |       |         | 12               |              |            |                   |        |          |        |       |              |        |                    |                         |      |                 |                  |                  |                  |     |        |              |      |       |     |           |                     |      |    |                       |           |                             |          |   |  |  |   |
|             | V850ES/KG2     | μ PD70F3731    | 128         | Flash | O       | 6                | 20           | -          | O                 | 84     | 16/22    | 5      | 5     | -            | 1      | 2                  | 16位 x 5,<br>8位 x 4      | 2    | -               | 1                | -                | -                | -   | -      | -            | -    | -     | -   | -         | O                   | -    | -  | 8                     | 2         | DMA                         | 2.7-5.5  | 100-LQFP<br>(14 x 14)<br>100-QFP<br>(14 x 20) |  |  |   |
|             |                | μ PD70F3732    | 256         |       |         | 16               |              |            |                   |        |          |        |       |              |        |                    |                         |      |                 |                  |                  |                  |     |        |              |      |       |     |           |                     |      |    |                       |           |                             |          |   |  |  |   |
|             | V850ES/KJ2     | μ PD70F3733    | 128         | Flash | O       | 6                | 20           | -          | O                 | 128    | 16/24    | 7      | 5     | -            | 1      | 2                  | 16位 x 7,<br>8位 x 4      | 2    | -               | 1 <sup>※3</sup>  | -                | 1 <sup>※3</sup>  | -   | -      | 2            | -    | 2     | 1   | -         | -                   | -    | O  | -                     | -         | 16                          | 2        | DMA   | 2.7-5.5  | 144-LQFP<br>(20 x 20)                        |   |
|             |                | μ PD70F3734    | 256         |       |         | 16               |              |            |                   |        |          |        |       |              |        |                    |                         |      |                 |                  |                  |                  |     |        |              |      |       |     |           |                     |      |    |                       |           |                             |          |   |  |  |   |
|             | V850ES/KE1+    | μ PD703302(Y)  | 128         | Mask  | -       | 4                | 20           | 240 k      | O                 | 51     | -/       | 2      | 5     | -            | 1      | 2                  | 16位 x 2,<br>8位 x 4      | 1    | 1               | -                | -                | -                | -   | -      | -            | -    | -     | -   | -         | -                   | -    | -  | -                     | -         | 8                           | -        | POC, LVI, CLM,<br>ROMC                        | 2.7-5.5  | 64-LQFP<br>(10 x 10)<br>64-TQFP<br>(12 x 12) |   |
|             |                | μ PD70F3302(Y) |             | Flash | O       |                  |              |            |                   |        |          |        |       |              |        |                    |                         |      |                 |                  |                  |                  |     |        |              |      |       |     |           |                     |      |    |                       |           |                             |          |   |  |  |   |
| V850ES/KF1+ | μ PD70F3306(Y) | 128            | Flash       | O     | 6       | 20               | 240 k        | O          | 67                | 16/16  | 3        | 5      | -     | 1            | 2      | 16位 x 3,<br>8位 x 4 | 1                       | 1    | -               | -                | -                | -                | -   | 2      | -            | 1    | (1)   | -   | -         | -                   | -    | -  | 8                     | -         | POC, LVI, CLM,<br>ROMC      | 2.7-5.5  | 80-TQFP<br>(12 x 12)<br>80-QFP<br>(14 x 14)   |  |  |   |
|             | μ PD70F3308(Y) |                |             |       | 256     |                  |              |            |                   |        |          |        |       |              |        |                    |                         |      |                 |                  |                  |                  |     |        |              |      |       |     |           |                     |      |    |                       |           |                             |          |   | 12   |  |   |
| V850ES/KG1+ | μ PD70F3311(Y) | 128            | Flash       | O     | 6       | 20               | 240 k        | O          | 84                | 16/22  | 5        | 5      | -     | 1            | 2      | 16位 x 5,<br>8位 x 4 | 1                       | 1    | 1               | -                | -                | -                | -   | 1      | -            | 2    | (1)   | -   | -         | -                   | -    | -  | 8                     | 2         | POC, LVI, CLM,<br>DMA, ROMC | 2.7-5.5  | 100-LQFP<br>(14 x 14)<br>100-QFP<br>(14 x 20) |  |  |   |
|             | μ PD703313(Y)  |                | 256         | Mask  | -       |                  |              |            |                   |        |          |        |       |              |        |                    |                         |      |                 |                  |                  |                  |     |        |              |      |       |     |           |                     |      |    |                       |           |                             |          |   | 16   |  |   |
|             | μ PD70F3313(Y) |                | Flash       | O     |         |                  |              |            |                   |        |          |        |       |              |        |                    |                         |      |                 |                  |                  |                  |     |        |              |      |       |     |           |                     |      |    |                       |           |                             |          |   |  |  |   |
| V850ES/KJ1+ | μ PD70F3316(Y) | 128            | Flash       | O     | 6       | 20               | 240 k        | O          | 128               | 16/24  | 7        | 5      | -     | 1            | 2      | 16位 x 7,<br>8位 x 4 | 2 <sup>※3</sup>         | 1    | 1 <sup>※3</sup> | -                | 0 <sup>※3</sup>  | -                | -   | 2      | -            | 2    | (1)   | -   | -         | -                   | -    | -  | 16                    | 2         | POC, LVI, CLM,<br>DMA       | 2.7-5.5  | 144-LQFP<br>(20 x 20)                         |  |  |   |
|             | μ PD70F3318(Y) |                |             |       | 256     |                  |              |            |                   |        |          |        |       |              |        |                    |                         |      |                 |                  |                  |                  |     |        |              |      |       |     |           |                     |      |    |                       |           |                             |          |   | 16   | O  |   |

注:  
 1. 16 KB是数据专用RAM。  
 2. 64 KB是数据专用RAM。  
 3. UART(1通道)是同一通道。提供了共计3个UART通道。

备注:  
 POC: 上电清零电路  
 LVI: 低电压检测电路  
 CLM: 时钟监视器  
 ROMC: ROM修正



**V850系列32位单片微控制器**

| 设备           |               |                | 存储器         |       |         |             | 时钟           |            | I/O 总线           |        | 定时器       |        |       |       |        | 串行接口    |                       |          |                |         |                |             | OCD         |     | 外围功能  |        |    |       | 其他  |           |                   | 应用 |                   |      |           |           |                     |  |                                   |   |  |   |  |  |
|--------------|---------------|----------------|-------------|-------|---------|-------------|--------------|------------|------------------|--------|-----------|--------|-------|-------|--------|---------|-----------------------|----------|----------------|---------|----------------|-------------|-------------|-----|-------|--------|----|-------|-----|-----------|-------------------|----|-------------------|------|-----------|-----------|---------------------|--|-----------------------------------|---|--|---|--|--|
| CPU内核        | 商业名称          | 产品名称           | ROM(字节)[KB] | ROM阵列 | 外部Flash | RAM(字节)[KB] | 最大工作频率 [MHz] | 内部振荡器 [Hz] | 温度(32.768 [kHz]) | I/O 接口 | 外部总线数据/地址 | 16位定时器 | 8位定时器 | 其它定时器 | 看门狗定时器 | PWM 通道  | UART                  | UART/CSI | UART/CSI/IEBUS | UART/PC | UART/CSI/IEBUS | UART/CSI/PC | UART/CSI/PC | CSI | CSI/C | CSI/PC | IC | IEBus | CAN | CAN/IEBus | UART/PC/CAN/IEBUS |    | UART/PC/CAN/IEBUS | 其它功能 | 10位A/D转换器 | 12位A/D转换器 | LCDsegment x common | 其它功能   | 电源电压[V]                           | 封装尺寸 [mm]                                     | 在线仿真器<br>仿真板                                   |   |  |  |
| V850ES       | V850ES/SA2    | μ PD703200(Y)  | 128         | Mask  | -       | 8           | 20           | -          | ○                | 82     | 16/22     | 2      | 4     | -     | -      | 1       | 16位 x 2,<br>8位 x 4    | 1        | -              | 1       | -              | -           | -           | -   | 3     | 0      | -  | -     | -   | -         | -                 | -  | -                 | -    | 12        | 2         | DMA, ROMC           | 2.2-2.7  | 100-TQFP<br>(14 x 14)             | IE-V850ES-G1+<br>IE-703204-G1-EM1             |  |   |  |  |
|              |               | μ PD703201(Y)  | 256         | Flash | ○       | 16          |              |            |                  |        |           |        |       |       |        |         |                       |          |                |         |                |             |             |     |       |        |    |       |     |           |                   |    |                   |      |           |           |                     |  |                                   |   |  |   |  |  |
|              | V850ES/SA3    | μ PD703204(Y)  | 256         | Mask  | -       | 16          | 20           | -          | ○                | 102    | 16/24     | 2      | 4     | -     | -      | 1       | 16位 x 2,<br>8位 x 4    | 1        | -              | 1       | -              | -           | -           | -   | -     | 4      | 0  | -     | -   | -         | -                 | -  | -                 | -    | 16        | 2         | DMA, ROMC           | 2.2-2.7  | 121-FBGA<br>(12 x 12)             |   |  |   |  |  |
| V850ES/ST2   |               | μ PD703220     | -           | -     | -       | 48          | 34           | -          | -                | 65     | 16/22     | 7      | -     | -     | -      | 1       | 16位 x 6               | 1        | -              | 1       | -              | -           | -           | -   | -     | -      | -  | -     | -   | -         | -                 | -  | -                 | 8    | 2         | -         | 3.0-3.6             | 120-TQFP<br>(14 x 14)<br>144-LQFP<br>(20 x 20) | IE-V850ES-G1+<br>IE-703220-G1-EM1 |   |  |   |  |  |
| V850         | V850/SA1      | μ PD703014B(Y) | 64          | Mask  | -       | 4           | 20           | -          | ○                | 85     | 16/22     | 2      | 4     | -     | 1      | 1       | 16位 x 2,<br>8位 x 4    | 1        | -              | 1       | -              | -           | -           | -   | -     | 2      | 0  | -     | -   | -         | -                 | -  | -                 | -    | -         | -         | 12                  | -  | DMA                               | 2.7-3.6                                       | 100-LQFP<br>(14 x 14)<br>121-FBGA<br>(12 x 12) | IE-703002-MC+<br>IE-703017-MC-EM1   |  |  |
|              |               | μ PD703015B(Y) | 128         | Flash | -       | 8           |              |            |                  |        |           |        |       |       |        |         |                       |          |                |         |                |             |             |     |       |        |    |       |     |           |                   |    |                   |      |           |           |                     |  |                                   |   |  |   |  |  |
|              |               | μ PD703017A(Y) | 256         | Mask  | -       | 8           |              |            |                  |        |           |        |       |       |        |         |                       |          |                |         |                |             |             |     |       |        |    |       |     |           |                   |    |                   |      |           |           |                     |  |                                   |   |  |   |  |  |
|              |               | μ PD703017A(Y) | 256         | Flash | -       | 8           |              |            |                  |        |           |        |       |       |        |         |                       |          |                |         |                |             |             |     |       |        |    |       |     |           |                   |    |                   |      |           |           |                     |  |                                   |   |  |   |  |  |
|              | V850/SB1      | μ PD703031BY   | 128         | Mask  | -       | 8           | 20           | -          | ○                | 83     | 16/22     | 2      | 6     | -     | 1      | 1       | 16位 x 2,<br>8位 x 4    | -        | -              | 2       | -              | -           | -           | -   | -     | 1      | 2  | -     | -   | -         | -                 | -  | -                 | -    | -         | 12        | -                   | DMA, ROMC                                      | 4.0-5.5                           | 100-LQFP<br>(14 x 14)<br>100-QFP<br>(14 x 20) | IE-703002-MC+<br>IE-703037-MC-EM1              |   |  |  |
|              |               | μ PD703033BY   | 256         | Flash | -       | 16          |              |            |                  |        |           |        |       |       |        |         |                       |          |                |         |                |             |             |     |       |        |    |       |     |           |                   |    |                   |      |           |           |                     |  |                                   |   |  |   |  |  |
|              |               | μ PD703030BY   | 384         | Mask  | -       | 24          |              |            |                  |        |           |        |       |       |        |         |                       |          |                |         |                |             |             |     |       |        |    |       |     |           |                   |    |                   |      |           |           |                     |  |                                   |   |  |   |  |  |
|              |               | μ PD703030BY   | 384         | Flash | -       | 24          |              |            |                  |        |           |        |       |       |        |         |                       |          |                |         |                |             |             |     |       |        |    |       |     |           |                   |    |                   |      |           |           |                     |  |                                   |   |  |   |  |  |
|              |               | μ PD703032BY   | 512         | Mask  | -       | 24          |              |            |                  |        |           |        |       |       |        |         |                       |          |                |         |                |             |             |     |       |        |    |       |     |           |                   |    |                   |      |           |           |                     |  |                                   |   |  |   |  |  |
|              |               | μ PD703032BY   | 512         | Flash | -       | 24          |              |            |                  |        |           |        |       |       |        |         |                       |          |                |         |                |             |             |     |       |        |    |       |     |           |                   |    |                   |      |           |           |                     |  |                                   |   |  |   |  |  |
| V850E2       | V850E2/ME3    | μ PD703500     | 168         | RAM   | -       | 32          | 200          | -          | -                | 78     | 32/26     | 12     | -     | -     | -      | 16位 x 8 | 1                     | -        | 1              | -       | -              | -           | -           | -   | -     | -      | -  | -     | -   | -         | -                 | -  | -                 | -    | -         | 8         | -                   | 8 KB<br>指令缓冲,<br>8 KB<br>指令缓冲,<br>USB, DMA     | 1.4-1.65<br>3.0-3.6               | 176-QFP<br>(24 x 24)                          | QB-V850MINI<br>(MINICUBE)                      |   |  |  |
| V850E1       | V850E/ME2     | μ PD703111B-06 | 128         | RAM   | -       | 16          | 66           | -          | -                | 78     | 32/26     | 12     | -     | -     | -      | 16位 x 8 | 1                     | -        | 1              | -       | -              | -           | -           | -   | -     | -      | -  | -     | -   | -         | -                 | -  | -                 | -    | -         | -         | 8                   | -  | 8 KB<br>指令缓冲,<br>USB, DMA         | 1.35-1.65<br>3.0-3.6                          | 176-LQFP<br>(24 x 24)                          | QB-V850MINI<br>(MINICUBE)   |  |  |
|              |               | μ PD703111B-10 |             |       |         |             | 100          |            |                  |        |           |        |       |       |        |         |                       |          |                |         |                |             |             |     |       |        |    |       |     |           |                   |    |                   |      |           |           |                     |  |                                   |   |  |   |  |  |
|              |               | μ PD703111B-13 |             |       |         |             | 133          |            |                  |        |           |        |       |       |        |         |                       |          |                |         |                |             |             |     |       |        |    |       |     |           |                   |    |                   |      |           |           |                     |  |                                   |   |  |   |  |  |
|              |               | μ PD703111B-15 |             |       |         |             | 150          |            |                  |        |           |        |       |       |        |         |                       |          |                |         |                |             |             |     |       |        |    |       |     |           |                   |    |                   |      |           |           |                     |  |                                   |   |  |   |  |  |
|              | V850E/MA3     | μ PD703136BY   | 256         | Mask  | -       | 8           | 80           | -          | -                | 112    | 16/26     | 9      | -     | -     | -      | 1       | 16位 x 6,<br>6相16位 x 1 | -        | -              | 3       | -              | 1           | -           | -   | -     | -      | -  | -     | -   | -         | -                 | -  | -                 | -    | -         | -         | 8                   | 2  | DMA, ROMC                         | 2.3-2.7<br>3.0-3.6                            | 144-LQFP<br>(20 x 20)<br>161-FBGA<br>(13 x 13) | QB-MINI2<br>(MINICUBE2)<br>QB-V850MINI<br>(MINICUBE)<br>QB-V850EMA3<br>(IECUBE) |  |  |
|              |               | μ PD703131BY   |             |       |         | 16          |              |            |                  |        |           |        |       |       |        |         |                       |          |                |         |                |             |             |     |       |        |    |       |     |           |                   |    |                   |      |           |           |                     |  |                                   |   |  |   |  |  |
|              |               | μ PD703132BY   |             |       |         | 32          |              |            |                  |        |           |        |       |       |        |         |                       |          |                |         |                |             |             |     |       |        |    |       |     |           |                   |    |                   |      |           |           |                     |  |                                   |   |  |   |  |  |
|              | μ PD703133BY  | 512            | Flash       | ○     | 16      |             |              |            |                  |        |           |        |       |       |        |         |                       |          |                |         |                |             |             |     |       |        |    |       |     |           |                   |    |                   |      |           |           |                     |  |                                   |   |  |   |  |  |
| μ PD703134BY | 32            |                |             |       |         |             |              |            |                  |        |           |        |       |       |        |         |                       |          |                |         |                |             |             |     |       |        |    |       |     |           |                   |    |                   |      |           |           |                     |  |                                   |   |  |   |  |  |
|              | μ PD70F3134BY |                |             |       |         |             |              |            |                  |        |           |        |       |       |        |         |                       |          |                |         |                |             |             |     |       |        |    |       |     |           |                   |    |                   |      |           |           |                     |  |                                   |   |  |   |  |  |

注: Naito Densai Machida Mfg.Co., Ltd 生产。

备注: ROMC: ROM修正

通用(中端)





V850系列32位单片微控制器

| 设备            |               |              | 存储器           |          |           | 时钟          |           | I/O       | 总线    | 定时器    |        |       |       | 串行接口   |                    |          |          |                  | OCD     |                    | 外围功能       |     |         |        | 其他    |     |           | 应用 |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
|---------------|---------------|--------------|---------------|----------|-----------|-------------|-----------|-----------|-------|--------|--------|-------|-------|--------|--------------------|----------|----------|------------------|---------|--------------------|------------|-----|---------|--------|-------|-----|-----------|----|----------------------------|------|----------------------|-----------|-----------|----------|------|-----------|---|---|--|-----------------------|-----|-------|----|---|---------|----------|---|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|-----------------------|-----------------------------------|--------------------------------|---|----------|
| CPU内核         | 商业名称          | 产品名称         | ROM容量[KB]     | 单片机Flash | RAM容量[KB] | 最大工作频率[MHz] | 内部振荡器[Hz] | 外部振荡器[Hz] | I/O接口 | 外部总线地址 | 16位定时器 | 8位定时器 | 其他定时器 | 看门狗定时器 | PWM/通道             | UART     | UART/CSI | UART/CSI+LIN-bus | UART/iC | UART/RS485+LIN-bus | UART/RS485 | CSI | CSI/IIC | CSI/IC | IEBus | CAN | CAN/IEBus |    | UART/I2C/CAN/RS485+LIN-bus | 片上调试 | LCD segment x common | 12位A/D转换器 | 10位A/D转换器 | 8位D/A转换器 | 其它功能 | 电源回拉[V]   | 封装尺寸 [mm]                                     | 在线仿真器<br>在仿真板上                                |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
| V850ES        | V850ES/SG1    | μ PD703252Y  | 256           | Mask     | -         | 12          | 200 k     | 84        | 16/22 | 8      | -      | -     | 1     | 1      | 16位 x 5            | 2        | -        | -                | -       | -                  | -          | 2   | -       | 1      | -     | -   | -         | -  | -                          | -    | -                    | -         | -         | -        | -    | CLM, ROMC | 2.85~3.6                                      | 100-LQFP<br>(14 x 14)<br>100-QFP<br>(14 x 20) | QB-MINI2<br>(MINICUBE2)<br>QB-V850MINI<br>(MINICUBE)<br>QB-V850ESSX2<br>(IECUBE) | 汽车音响<br>(内置IEBus)     |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
|               |               | μ PD703270Y  | 384           | -        | 24        |             |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
|               |               | μ PD703271Y  |               | Flash    | ○         | 32          |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
|               |               | μ PD70F3271Y |               | -        | 40        |             |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
|               |               | μ PD703272Y  |               | Mask     | -         | 48          |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
|               |               | μ PD703273Y  |               | Flash    | ○         | 48          |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
|               | V850ES/SG2    | μ PD70F3273Y | 640           | Flash    | ○         | 48          |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
|               |               | μ PD703272HY | 512           | Mask     | -         | 40          |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
|               | V850ES/SG2-H  | μ PD703273HY |               | 640      | Flash     | ○           |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           | 48  |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
|               |               | V850ES/SJ2   | μ PD703274Y   | 384      | Mask      | -           |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           | 32  | 200 k   |  |                       | 128 | 16/24 | 11 | - | -       | 1        | 1 | 16位 x 12 | - | 1 | - | - | - | - | 4 | 1 | - | - | - | - | - | - | - | - | -        | -                     | -                                 | -                              | - | 2.85~3.6 |
|               | μ PD70F3274Y  |              | Flash         | ○        | 32        |             |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
|               | μ PD703275Y   |              | Mask          | -        | 40        |             |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
|               | μ PD703276Y   |              | 640           | Flash    | ○         | 48          |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
|               | μ PD70F3276Y  |              | Flash         | ○        | 48        |             |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
| μ PD703275HY  | 512           |              | Mask          | -        | 40        |             |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
| V850ES/SJ2-H  |               | μ PD703276HY | 640           | Flash    | ○         | 48          |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
|               | V850          | V850/SB2     | μ PD70F3276HY | 128      | Flash     | ○           | 8         | -         | 83    | 16/22  | 2      | 6     | -     | 1      | 16位 x 2,<br>8位 x 4 | -        | -        | 2                | -       | -                  | -          | -   | 1       | 2      | -     | -   | 1         | -  | -                          | -    | -                    | -         | -         | -        | -    | 4.0~5.5   | 100-LQFP<br>(14 x 14)<br>100-QFP<br>(14 x 20) |   | IE-703002-MC+<br>IE-703037-MC-EM1  | 汽车电子                  |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
| μ PD703034BY  |               |              | 256           | Mask     | -         | 16          |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
| μ PD703035BY  |               |              |               | Flash    | -         | 16          |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
| μ PD70F3035BY |               |              | 384           | Mask     | -         | 24          |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
| μ PD703036HY  |               |              | Flash         | -        | 24        |             |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
| μ PD70F3036HY |               |              | Flash         | -        | 24        |             |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
| μ PD703037HY  |               | 512          | Mask          | -        | 24        |             |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
| V850/SC2      | μ PD703069Y   | 512          | Mask          | -        | 24        | 18.87       | -         |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      | ○         | 124   | 16/22   |  |                       | 10  | -     | -  | 1 | 1       | 16位 x 10 | 2 | -        | 2 | - | - | 2 | 2 | - | - | 1 | - | - | - | - | - | - | - | - | -        | 3.5~5.5               | 144-LQFP<br>(20 x 20)             |                                |   |          |
|               | μ PD70F3089Y注 | 4.0~5.5      |               |          |           |             |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
| V850ES        | V850ES/SG3    | μ PD70F3335  | 256           | Flash    | ○         | 24          | 220 k     |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      | 84        | 16/22   | 8   |  |                       | -   | -     | 1  | 1 | 16位 x 9 | -        | - | -        | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 2.85~3.6 | 100-LQFP<br>(14 x 14) | IE-703002-MC+<br>IE-703037-MC-EM1 | 汽车音响<br>(内置CAN)<br>(ALL FLASH) |   |          |
|               |               | μ PD70F3336  | 384           |          | 32        |             |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
|               |               | μ PD70F3350  | 512           |          | 40        |             |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
|               |               | μ PD70F3351  | 640           |          | 48        |             |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
|               |               | μ PD70F3352  | 768           |          | 60        |             |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
|               |               | μ PD70F3353  | 1024          |          |           |             |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
|               | V850ES/SJ3    | μ PD70F3354  | 384           | Flash    | ○         | 32          |           | 220 k     | 128   | 16/24  | 11     | -     | -     | 1      | 1                  | 16位 x 12 | -        | 1                | -       | -                  | -          | -   | -       | 4      | 1     | -   | -         | -  | -                          | -    | -                    | -         | -         | -        | -    |           |   |   | 2.85~3.6   | 144-LQFP<br>(20 x 20) |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
|               |               | μ PD70F3355  | 512           |          | 40        |             |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
|               |               | μ PD70F3356  | 640           |          | 48        |             |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
|               |               | μ PD70F3357  | 768           |          | 60        |             |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
|               |               | μ PD70F3358  | 1024          |          |           |             |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
|               |               | μ PD70F3364  | 384           |          | 32        |             |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
|               |               | μ PD70F3365  | 512           |          | 40        |             |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
|               |               | μ PD70F3366  | 640           |          | 48        |             |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
|               |               | μ PD70F3367  | 768           |          | 60        |             |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |
| μ PD70F3368   | 1024          |              |               |          |           |             |           |           |       |        |        |       |       |        |                    |          |          |                  |         |                    |            |     |         |        |       |     |           |    |                            |      |                      |           |           |          |      |           |   |   |  |                       |     |       |    |   |         |          |   |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |                       |                                   |                                |   |          |

注: μ PD70F3089Y是V850/SC1, V850/SC2, V850/SC3共同的Flash存储器产品。

备注: LVI: 低电压检测电路 CLM: 时钟监视器 ROMC: ROM修正





# V850系列32位单片微控制器

| CPU内核       | 商业名称         | 产品名称         | 存储器       |       |         | 时钟        |             |            | I/O 总线           |       | 定时器       |        |       |       |        | 串行接口     |                      |            |            |            |            |            | OCD        |            | 外围功能       |            |            | 其他         |            | 应用 |            |      |         |                    |                    |                    |                    |   |                    |      |
|-------------|--------------|--------------|-----------|-------|---------|-----------|-------------|------------|------------------|-------|-----------|--------|-------|-------|--------|----------|----------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|----|------------|------|---------|--------------------|--------------------|--------------------|--------------------|---|--------------------|------|
|             |              |              | ROM容量[KB] | ROM类型 | 串行Flash | RAM容量[KB] | 最大工作频率[MHz] | 内部振荡器[HZ]  | 晶振频率(32.768 kHz) | I/O端口 | 外部总线数据/地址 | 16位定时器 | 8位定时器 | 其他定时器 | 看门狗定时器 | PWM寄存器   | UART/RS485           | UART/RS485 | UART/RS485 | UART/RS485 | UART/RS485 | UART/RS485 | UART/RS485 | UART/RS485 | UART/RS485 | UART/RS485 | UART/RS485 | UART/RS485 | UART/RS485 |    | UART/RS485 | 其他功能 | 电源电压[V] | 封装尺寸[mm]           | 在线仿真器              |                    |                    |   |                    |      |
| V850ES      | V850ES/FE3   | µ PD70F3370A | 128       | Flash | ○       | 8         | 32          | 8 M, 240 k | ○                | 51    | -/-       | 7      | -     | -     | 1      | 1        | 16位 x 8 (6相16位 x 1)  | -          | 2          | -          | -          | -          | -          | 2          | -          | -          | 1          | -          | 1          | -  | -          | ○    | -       | -                  | 10                 | -                  | POC, LVI, CLM, DMA | 3.5-5.5   | 64-LQFP (10 x 10)  | 汽车电子 |
|             |              | µ PD70F3371  | 256       | Flash | ○       | 8         | 32          | 8 M, 240 k | ○                | 67    | -/-       | 7      | -     | -     | 1      | 1        | 16位 x 8 (6相16位 x 1)  | -          | 2          | -          | -          | -          | -          | 2          | -          | -          | 1          | -          | 1          | -  | -          | ○    | -       | -                  | 12                 | -                  | POC, LVI, CLM, DMA | 3.5-5.5   | 80-LQFP (12 x 12)  |      |
|             | V850ES/FG3   | µ PD70F3374  | 128       | Flash | ○       | 8         | 32          | 8 M, 240 k | ○                | 84    | -/-       | 8      | -     | -     | 1      | 1        | 16位 x 11 (6相16位 x 1) | -          | 3          | -          | -          | -          | -          | 2          | -          | -          | 1          | -          | 2          | -  | -          | ○    | -       | -                  | 16                 | -                  | POC, LVI, CLM, DMA | 3.5-5.5   | 100-LQFP (14 x 14) |      |
|             |              | µ PD70F3375  | 256       |       |         | 16        | 48          |            |                  |       |           |        |       |       |        |          |                      |            |            |            |            |            |            |            |            |            |            |            |            |    |            |      |         |                    |                    |                    |                    |   |                    |      |
|             |              | µ PD70F3376A | 384       |       |         | 24        | 32          |            |                  |       |           |        |       |       |        |          |                      |            |            |            |            |            |            |            |            |            |            |            |            |    |            |      |         |                    |                    |                    |                    |   |                    |      |
|             | V850ES/FJ3   | µ PD70F3378  | 256       | Flash | ○       | 16        | 32          | 8 M, 240 k | ○                | 128   | -/-       | 9      | -     | -     | 1      | 1        | 16位 x 14 (6相16位 x 1) | -          | 3          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -  | ○          | -    | -       | 24                 | -                  | POC, LVI, CLM, DMA | 3.5-5.5            | 144-LQFP (20 x 20)  |                    |      |
|             |              | µ PD70F3379  | 384       |       |         | 24        | 40          |            |                  |       |           |        |       |       |        |          |                      |            |            |            |            |            |            |            |            |            |            |            |            |    |            |      |         |                    |                    |                    |                    |   |                    |      |
|             |              | µ PD70F3380  | 512       |       |         | 32        | 48          |            |                  |       |           |        |       |       |        |          |                      |            |            |            |            |            |            |            |            |            |            |            |            |    |            |      |         |                    |                    |                    |                    |   |                    |      |
|             |              | µ PD70F3381  | 768       |       |         | 40        | 48          |            |                  |       |           |        |       |       |        |          |                      |            |            |            |            |            |            |            |            |            |            |            |            |    |            |      |         |                    |                    |                    |                    |   |                    |      |
|             | V850ES/FK3   | µ PD70F3383  | 512       | Flash | ○       | 32        | 48          | 8 M, 240 k | ○                | 152   | -/-       | 12     | -     | -     | 1      | 1        | 16位 x 17 (6相16位 x 1) | -          | 8          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | ○  | -          | -    | 24 + 16 | -                  | POC, LVI, CLM, DMA | 3.5-5.5            | 176-LQFP (24 x 24) |   |                    |      |
|             |              | µ PD70F3384  | 768       |       |         | 48        | 60          |            |                  |       |           |        |       |       |        |          |                      |            |            |            |            |            |            |            |            |            |            |            |            |    |            |      |         |                    |                    |                    |                    |   |                    |      |
|             | V850ES/FE3-L | µ PD70F3610  | 64        | Flash | ○       | 6         | 20          | 8 M, 240 k | ○                | 51    | -/-       | 6      | -     | -     | 1      | 1        | 16位 x 5              | -          | 2          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -  | ○          | -    | -       | 10                 | -                  | POC, LVI, CLM      | 3.5-5.5            | 64-LQFP (7 x 7)<br>64-LQFP (10 x 10)<br>64-LQFP (10 x 10) |                    |      |
|             |              | µ PD70F3611  | 96        |       |         | 12        | 16          |            |                  |       |           |        |       |       |        |          |                      |            |            |            |            |            |            |            |            |            |            |            |            |    |            |      |         |                    |                    |                    |                    |   |                    |      |
|             |              | µ PD70F3612  | 128       |       |         | 12        | 16          |            |                  |       |           |        |       |       |        |          |                      |            |            |            |            |            |            |            |            |            |            |            |            |    |            |      |         |                    |                    |                    |                    |   |                    |      |
|             |              | µ PD70F3613  | 192       |       |         | 12        | 16          |            |                  |       |           |        |       |       |        |          |                      |            |            |            |            |            |            |            |            |            |            |            |            |    |            |      |         |                    |                    |                    |                    |   |                    |      |
|             | V850ES/FF3-L | µ PD70F3615  | 64        | Flash | ○       | 6         | 20          | 8 M, 240 k | ○                | 67    | -/-       | 6      | -     | -     | 1      | 1        | 16位 x 5              | -          | 2          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | ○  | -          | -    | 12      | -                  | POC, LVI, CLM      | 3.5-5.5            | 80-LQFP (12 x 12)  |   |                    |      |
|             |              | µ PD70F3616  | 96        |       |         | 12        | 16          |            |                  |       |           |        |       |       |        |          |                      |            |            |            |            |            |            |            |            |            |            |            |            |    |            |      |         |                    |                    |                    |                    |   |                    |      |
|             |              | µ PD70F3617  | 128       |       |         | 12        | 16          |            |                  |       |           |        |       |       |        |          |                      |            |            |            |            |            |            |            |            |            |            |            |            |    |            |      |         |                    |                    |                    |                    |   |                    |      |
|             |              | µ PD70F3618  | 192       |       |         | 12        | 16          |            |                  |       |           |        |       |       |        |          |                      |            |            |            |            |            |            |            |            |            |            |            |            |    |            |      |         |                    |                    |                    |                    |   |                    |      |
|             | V850ES/FG3-L | µ PD70F3620  | 128       | Flash | ○       | 8         | 20          | 8 M, 240 k | ○                | 84    | -/-       | 6      | -     | -     | 1      | 1        | 16位 x 5              | -          | 3          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | ○  | -          | -    | 16      | -                  | POC, LVI, CLM      | 3.5-5.5            | 100-LQFP (14 x 14) |   |                    |      |
|             |              | µ PD70F3621  | 192       |       |         | 12        | 16          |            |                  |       |           |        |       |       |        |          |                      |            |            |            |            |            |            |            |            |            |            |            |            |    |            |      |         |                    |                    |                    |                    |   |                    |      |
|             |              | µ PD70F3622  | 256       |       |         | 12        | 16          |            |                  |       |           |        |       |       |        |          |                      |            |            |            |            |            |            |            |            |            |            |            |            |    |            |      |         |                    |                    |                    |                    |   |                    |      |
|             | V850ES/FE2   | µ PD703230   | 64        | Mask  | -       | 4         | 20          | 200 k      | ○                | 51    | -/-       | 6      | -     | -     | 1      | 1        | 16位 x 7              | -          | 2          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | ○  | -          | -    | 10      | -                  | POC, LVI, CLM      | 3.5-5.5            | 64-LQFP (10 x 10)  |   |                    |      |
|             |              | µ PD703231   | 128       |       |         | 6         |             |            |                  |       |           |        |       |       |        |          |                      |            |            |            |            |            |            |            |            |            |            |            |            |    |            |      |         |                    |                    |                    |                    |   |                    |      |
|             | V850ES/FF2   | µ PD703232   | 128       | Flash | ○       | 6         | 20          | 200 k      | ○                | 67    | -/-       | 6      | -     | -     | 1      | 1        | 16位 x 7              | -          | 2          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | ○  | -          | -    | 12      | -                  | POC, LVI, CLM      | 3.5-5.5            | 80-TQFP (12 x 12)  |   |                    |      |
|             |              | µ PD703233   | 256       |       |         | 12        |             |            |                  |       |           |        |       |       |        |          |                      |            |            |            |            |            |            |            |            |            |            |            |            |    |            |      |         |                    |                    |                    |                    |   |                    |      |
|             |              | µ PD703233   | 256       |       |         | 12        |             |            |                  |       |           |        |       |       |        |          |                      |            |            |            |            |            |            |            |            |            |            |            |            |    |            |      |         |                    |                    |                    |                    |   |                    |      |
|             |              | µ PD703233   | 256       |       |         | 12        |             |            |                  |       |           |        |       |       |        |          |                      |            |            |            |            |            |            |            |            |            |            |            |            |    |            |      |         |                    |                    |                    |                    |   |                    |      |
|             | V850ES/FG2   | µ PD703234   | 128       | Mask  | -       | 6         | 20          | 200 k      | ○                | 84    | -/-       | 7      | -     | -     | 1      | 1        | 16位 x 10             | -          | 3          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | ○  | -          | -    | 16      | -                  | POC, LVI, CLM, DMA | 3.5-5.5            | 100-LQFP (14 x 14) |   |                    |      |
|             |              | µ PD70F3234  | 256       |       |         | 12        |             |            |                  |       |           |        |       |       |        |          |                      |            |            |            |            |            |            |            |            |            |            |            |            |    |            |      |         |                    |                    |                    |                    |   |                    |      |
| µ PD70F3235 |              | 384          | 16        |       |         |           |             |            |                  |       |           |        |       |       |        |          |                      |            |            |            |            |            |            |            |            |            |            |            |            |    |            |      |         |                    |                    |                    |                    |   |                    |      |
| V850ES/FJ2  | µ PD70F3236  | 384          | Flash     | ○     | 12      | 20        | 200 k       | ○          | 128              | 16/16 | 8         | -      | -     | 1     | 1      | 16位 x 13 | -                    | 3          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | ○          | -  | -          | 24   | -       | POC, LVI, CLM, DMA | 3.5-5.5            | 144-LQFP (20 x 20) |                    |   |                    |      |
|             | µ PD70F3237  | 256          |           |       | 4       |           |             |            |                  |       |           |        |       |       |        |          |                      |            |            |            |            |            |            |            |            |            |            |            |            |    |            |      |         |                    |                    |                    |                    |   |                    |      |
|             | µ PD70F3238  | 376          |           |       | 4       |           |             |            |                  |       |           |        |       |       |        |          |                      |            |            |            |            |            |            |            |            |            |            |            |            |    |            |      |         |                    |                    |                    |                    |   |                    |      |

备注:  
 POC: 上电清零电路      LVI: 低电压检测电路      CLM: 时钟监视器      ROMC: ROM修正



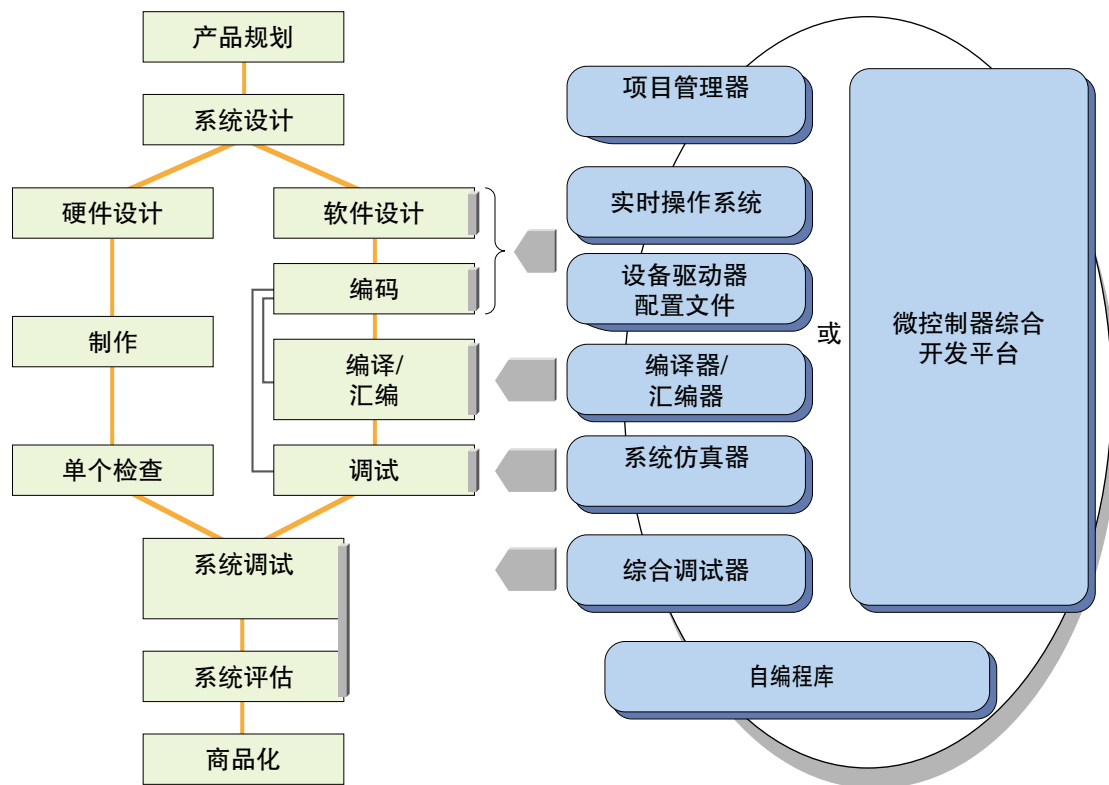


V850系列32位单片微控制器

| 设备     |           |             | 存储器       |       |         | 时钟        |             |              | I/O 总线  |       | 定时器       |        |       |       |        |        | 串行接口     |          |                  |                  |         |         |         |                  |          |          | OCD | 外围功能   |    |       |     | 其他        |                         |      | 应用     |    |           |   |   |                    |                    |  |           |                   |
|--------|-----------|-------------|-----------|-------|---------|-----------|-------------|--------------|---------|-------|-----------|--------|-------|-------|--------|--------|----------|----------|------------------|------------------|---------|---------|---------|------------------|----------|----------|-----|--------|----|-------|-----|-----------|-------------------------|------|--------|----|-----------|---|---|--------------------|--------------------|--|-----------|-------------------|
| CPU内核  | 商业名称      | 产品名称        | ROM容量[KB] | ROM类型 | 数据Flash | RAM容量[KB] | 最大工作频率[MHz] | 内部振荡器频率[kHz] | 温度补偿振荡器 | I/O接口 | 外部总线数据/地址 | 16位定时器 | 8位定时器 | 其它定时器 | 看门狗定时器 | PWM/输出 | UART     | UART/CSI | UART/CSI LIN-bus | UART/CSI LIN-bus | UART/PC | UART/PC | UART/PC | UART/CSI LIN-bus | UART/CSI | UART/CSI | CSI | CSI/PC | IC | IEBus | CAN | CAN/IEBus | UART/IC/CAN/CSI LIN-bus | 大小脚位 |        |    | 12位A/D转换器 | LCD(segment x common)                                 | 其它功能  | 8位D/A转换器           | 10位A/D转换器          | 电源电压[V]  | 封装尺寸 [mm] | 在线仿真器             |
| V850E1 | V850E/DG3 | μ PD70F3416 | 128       | Flash | ○       | 6         | 16          | 240k         | ○       | 80    | -/ -      | 7      | -     | -     | 1      | 1      | 16位 x 9  | -        | 2                | -                | -       | -       | -       | -                | -        | 1        | -   | -      | -  | -     | -   | -         | -                       | ○    | 40 x 4 | -  | 8         | -   | 仪表驱动 x 4, POC, CLM, ROMC, 声音发生器             | 3.2-5.5            | 100-LQFP (14 x 14) | QB-V850MINI (MINICUBE)<br>QB-V850EDJ3 (IECUBE) | 汽车电子      | 仪表盘控制 (ALL FLASH) |
|        |           | μ PD70F3417 | 256       |       |         | 12        |             |              |         |       |           |        |       |       |        |        |          |          |                  |                  |         |         |         |                  |          |          |     |        |    |       |     |           |                         |      |        |    |           |   |   |                    |                    |  |           |                   |
|        | V850E/DJ3 | μ PD70F3421 | 256       | Flash | ○       | 12        | 24          | 240k         | ○       | 114   | -/ -      | -      | -     | -     | 1      | 1      | 16位 x 16 | -        | 2                | -                | -       | -       | -       | -                | -        | -        | 2   | -      | 2  | -     | -   | -         | -                       | ○    | 40 x 4 | -  | 12        | -   | 仪表驱动 x 6, POC, CLM, DMA, ROMC, 电压比较器, 声音发生器 | 3.2-5.5            | 144-LQFP (20 x 20) |  |           |                   |
|        |           | μ PD70F3422 | 384       |       |         | 16        |             |              |         |       |           |        |       |       |        |        |          |          |                  |                  |         |         |         |                  |          |          |     |        |    |       |     |           |                         |      |        |    |           |   |   |                    |                    |  |           |                   |
|        |           | μ PD70F3423 | 512       |       |         | 20        |             |              |         |       |           |        |       |       |        |        |          |          |                  |                  |         |         |         |                  |          |          |     |        |    |       |     |           |                         |      |        |    |           |   |   |                    |                    |  |           |                   |
|        |           | μ PD70F3424 |           |       |         | 24        |             |              |         |       |           |        |       |       |        |        |          |          |                  |                  |         |         |         |                  |          |          |     |        |    |       |     |           |                         |      |        |    |           |   |   |                    |                    |  |           |                   |
|        |           | μ PD70F3425 |           |       |         | 32        |             |              |         |       |           |        |       |       |        |        |          |          |                  |                  |         |         |         |                  |          |          |     |        |    |       |     |           |                         |      |        |    |           |   |   |                    |                    |  |           |                   |
|        |           | μ PD70F3426 |           |       |         | 84        |             |              |         |       |           |        |       |       |        |        |          |          |                  |                  |         |         |         |                  |          |          |     |        |    |       |     |           |                         |      |        |    |           |   |   |                    |                    |  |           |                   |
|        | V850E/DL3 | μ PD70F3427 | 1024      | Mask  | -       | 60        | 64          | 240k         | ○       | 117   | 32/24     | 17     | -     | -     | 1      | 1      | 16位 x 16 | -        | 2                | -                | -       | -       | -       | -                | -        | 2        | -   | 2      | -  | -     | -   | -         | ○                       | -    | -      | 16 | -         | 仪表驱动 x 6, POC, CLM, DMA, ROMC, 电压比较器, 声音发生器, LCD 总线接口 | 3.2-5.5                                     | 208-LQFP (28 x 28) |                    |  |           |                   |

备注:  
POC: 上电清零电路      LVI: 低电压检测电路      CLM: 时钟监视器      ROMC: ROM修正

# 78K、V850微控制器开发工具介绍



| 类型        | 78K0S微控制器                 | 78K0微控制器  | 78K0R微控制器  | V850微控制器  |
|-----------|---------------------------|---|--|---|
| 软件包       | SP78K0S                   | SP78K0  | SP78K0R  | SP850   |
| 项目管理器     | PM+/Cubesuite             | PM+/Cubesuite                                       | PM+/Cubesuite                                      | PM+/Cubesuite   |
| C编译器      | CC78K0S                   | CC78K0  | CC78K0R  | CA850   |
| 系统仿真器     | SM+ <sup>注1</sup> SM78K0S | SM+ <sup>注2</sup> SM78K0                            | 用于78K0R/KX3的SM+ (指令+外围仿真)<br>用于78K0R的SM+ (指令+外围仿真) | SM850,<br>用于V850ES/Hx2,<br>V850ES/Jx2 <sup>注4</sup> ,<br>V850ES/Kx2 <sup>注4</sup> ,<br>V850E/Lx3 <sup>注4</sup> 的SM+ |
| 综合调试器     | ID78K0S-QB,<br>ID78K0S-NS | ID78K0-QB,<br>ID78K0-NS                             | ID78K0R-QB   | ID850, ID850-QB   |
| 实时操作系统    | 无                         | 无   | RX78K0R  | RX850, RX850 Pro, RX850V4   |
| 自编程库      | 样例程序                      | Selflib   | SelfLib  | SelfLib   |
| 设备驱动器配置文件 | Applilet <sup>注1</sup>    | Applilet <sup>注2</sup> ,<br>Applilet2 <sup>注3</sup> | 用于78K0R/KX3的Applilet2                              | 用于V850ES/Hx2,<br>V850ES/Jx2,<br>V850ES/Kx2的Applilet,<br>用于V850ES/Lx3的Applilet                                       |

备注:  
 注1: 仅支持78K0S/Kx1+  
 注2: 仅支持78K0/Kx2  
 注3: 仅支持78K0/Kx2, 78K0/Fx2, 78K0/Lx2, 78K0/Lx3  
 注4: 开发中

## ■ 微控制器综合开发平台

- 除编译、调试外，还能实现端口配置管理，生成微控制器外围功能代码和高速化构建等

## ■ 软件包

- 在一张光盘上提供项目管理器，C编译器，汇编器，系统仿真，综合调试等

## ■ 项目管理器

- 可以在Windows平台上运行各种开发工具
- 可以进行编辑，建立，调试和启动等一系列操作

## ■ C编译器

- 兼容ANSI-C标准
- 支持78K0S, 78K0, 78K0R, V850微控制器特有的扩展功能
- 嵌入式系统最适合的开发功能

## ■ 系统仿真器

- 使用与综合调试器相同的GUI设计
- 完成目标系统之前，可以进行无目标板评估

## ■ 综合调试器

- 在Windows上操作
- 易懂易用的GUI (Graphical User Interface)
- 常用指令集
- 仅单击鼠标即可启动

## ■ 汇编器

- 把汇编语言的源程序转换为机器语言
- 包含下列6个部分
  - ◆ 结构化汇编预处理器
  - ◆ 汇编器
  - ◆ 链接器
  - ◆ 目标转换器
  - ◆ 数据库
  - ◆ 列表转换程序
- 包括项目管理器PM+

## ■ 实时操作系统

- 兼容μTRON4.0

## ■ 自编程库

- 不使用编程器，Flash存储器自身就可以进行编程
- 掉电时，为了保护启动区域，内置了引导交换程序

## ■ 设备驱动器配置文件

- 简单生成复杂外围功能(定时器，UART等)的初始化程序

## 78K、V850微控制器开发工具介绍

| 项目           | 在线仿真器                                   |                               |                     |                               | 片上调试器                        |                   | QB-V850MINIL (MINICUBE) |
|--------------|---|-------------------------------|---------------------|-------------------------------|------------------------------|-------------------|-------------------------|
|              | QB-78K0Rxxx (IECUBE)                    | QB-78K0xxx (IECUBE)           | QB-V850xxx (IECUBE) | QB-78K0SKX1 (IECUBE)          | QB-78K0SKX1 (IECUBE)         |                   |                         |
| 最大工作频率       | 与目标设备相同 (Internal/External)             |                               |                     |                               | 与目标设备相同(Internal)            |                   |                         |
| 仿真存储容量       | 内部ROM                                   | 最大512 KB                      | 最大512 KB            | 1 MB                          | 目标设备的内部Flash ROM容量           |                   |                         |
|              | 内部RAM                                   | 最大61.75 KB                    | 最大61 KB             | 60 KB                         | 目标设备的内部RAM容量                 |                   |                         |
|              | 内部扩展RAM                                 | 与目标设备相同                       | 最大14 KB             | -                             | 无目标设备                        | 无                 | 无                       |
|              | 外部存储器                                   | 与目标设备相同                       |                     | 16MB(可选)                      | 无目标设备                        | 无                 | 无                       |
| 事件功能         | 执行事件                                    | 8                             |                     | 10                            | 无                            | 1(使用软件中断时为0)注1, 2 | 执行/访问复用引脚2个             |
|              | 访问事件                                    | 8                             | 10                  | 6                             | 1注1, 2                       |                   |                         |
| 中断功能         | 硬件中断                                    | 20~24                         | 34                  | 16                            | 1                            | 2注1, 2            | 2(部分设备不支持)              |
|              | 软件中断                                    | 2000                          |                     |                               | 2000                         |                   | 2000                    |
|              | 强制中断                                    | 允许                            | 允许                  | 允许                            | 允许                           | 允许                | 允许                      |
|              | 单步执行                                    | 允许                            | 允许                  | 允许                            | 允许                           | 允许                | 允许                      |
| 保护区访问中断      | 允许                                      | 允许                            | 允许                  | 允许                            | 允许                           | 允许注1, 3           | 禁止                      |
| 跟踪功能         | 跟踪存储器容量                                 | 128 K帧                        | 128 K帧              | 256 K帧                        | 1 K帧                         | 无                 |                         |
|              | 跟踪条目                                    | 状态, 指令执行, 访问, 时间标记            | 状态, 指令执行, 访问        | 跳转, 访问, 时间标记, 改写功能            | 指令执行                         |                   |                         |
| 时间测定功能       | 执行编程时间测定                                | 允许                            | 允许                  | 允许                            | 允许                           | 允许                | 允许(V850/ME2,V850/SV2禁止) |
|              | 间隔事件测量                                  | 允许(2)                         | 允许(2)               | 允许(8)                         | 禁止                           | 禁止                | 禁止                      |
|              | 间隔事件测量结果的显示条目                           | 合计, 通过次数, 最大值, 最小值, 平均值       |                     |                               | 禁止                           | 禁止                | 禁止                      |
|              | 超时中断                                    | 允许                            | 允许                  | 允许                            | 禁止                           | 禁止                | 禁止                      |
| 实时定时器RAM监视功能 | 点数                                      | 无限制                           |                     | 8                             | 8注1                          |                   | 禁止(允许仿真RAM监视器功能)        |
|              | 最大容量                                    | 内部ROM/内部RAM区域(同一时刻可在全存储器区域中断) |                     | 2KB                           | 无                            |                   |                         |
| 覆盖功能         | 存储器容量                                   | 内部ROM空间 + 外部存储器空间             |                     | 内部ROM空间 + 1M存储器空间             | 禁止                           | 禁止                | 禁止                      |
|              | 执行覆盖                                    | 允许                            |                     | 允许                            | 禁止                           | 禁止                | 禁止                      |
|              | 访问覆盖                                    | 允许                            |                     | 禁止                            | 禁止                           | 禁止                | 禁止                      |
| 可屏蔽引脚        | TARGET RESET, WAIT, NMI, INTERNAL RESET |                               |                     | RESET, WAIT, HLDRO, NMI, STOP | TARGET RESET, INTERNAL RESET |                   |                         |
| PC接口         | USB2.0, USB1.1                          | USB2.0, USB1.1                | USB2.0, USB1.1      | USB2.0, USB1.1                | USB2.0, USB1.1               | USB2.0, USB1.1    | USB2.0, USB1.1          |

注1: 当QB-MINI2(MINICUBE2)用于78K0S微控制器时, 不支持该功能。

注2: 当QB-MINI2(MINICUBE2)用于78K0R微控制器时, 执行或访问事件后, 一个事件可以被设置为其中任何一种事件。

注3: 当QB-MINI2(MINICUBE2)用于V850微控制器时, 不支持该功能。

## 78K、V850微控制器开发工具介绍

| 项目      | PG-FP5  | MINICUBE2  |
|---------|---|---|
| 尺寸      | 147x95x30mm   | 48x48x13.9mm  |
| 重量      | 约230g   | 约40g  |
| 目标设备    | 单/双电压的微控制器  | 单电压的微控制器  |
| 主机I/F   | USB2.0, USB1.1, 串行接口  | USB2.0, USB1.1  |
| 外部控制I/F | 允许  | 禁止  |
| 终端控制    | 允许  | 禁止  |
| 自检功能    | 允许  | 允许  |
| 目标I/F   | CSI(最大5MHz), CSI-H/S(最大5MHz), UART, IIC, PORT   | CSI-H/S(最大2MHz), UART   |
| 编程器电压   | 1.2-5.5V(额定最大电流: 200mA)(内部切换)   | 3.1或5.0V(开关切换)  |
| 时钟      | 可选择(1-20MHz)  | 可选择(4.8, 16MHz)   |
| ROM容量   | 最高可达16M(可分为8或4个区域)  | 最高可达4M  |
| 设备规格    | PG-FP5参数文件(*.pr5)(最高可加载8个文件)  | MINICUBE2参数文件(*.prm)(只能加载一个文件)  |
| 安全设置    | 可以设置安全命令  | 可以设置安全命令  |
| 独立模式下编程 | 可以使用NEXT, ENTER, CANCEL按钮, START可以进行编程  | 不能  |
| 目标线     | 16pin   | 16pin   |
| 供电电源    | AC适配器(15V, 1A), 单独销售  | USB供电(5V)   |
| GUI     | 用于PG-FP5的GUI  | QB-programming  |

## 芯片封装说明

| 封装名称  | 引脚数 | 封装尺寸 (mm)    | 引脚间距 (mm) | 安装高度(最大值)(mm) |
|-------|-----|--------------|-----------|---------------|
| SDIP  | 20  | 6.3 x 19     | 1.778     | 4.50          |
|       | 64  | 17 x 56.4    | 1.778     | 5.08          |
| SOP   | 32  | 11.3 x 20.45 | 1.27      | 3.00          |
| SSOP  | 42  | 8.4 x 17.5   | 0.80      | 2.40          |
| LSSOP | 20  | 4.4 x 6.5    | 0.65      | 1.45          |
| QFP   | 64  | 14 x 14      | 0.80      | 3.05          |
|       | 80  | 14 x 14      | 0.65      | 3.05          |
|       | 100 | 14 x 20      | 0.65      | 3.10          |
|       | 128 | 14 x 20      | 0.50      | 3.15          |
|       | 144 | 20 x 20      | 0.50      | 3.05          |
| LQFP  | 32  | 7 x 7        | 0.80      | 1.70          |
|       | 48  | 7 x 7        | 0.50      | 1.70          |
|       | 48  | 10 x 10      | 0.65      | 1.70          |
|       | 52  | 10 x 10      | 0.65      | 1.70          |
|       | 64  | 10 x 10      | 0.50      | 1.70          |
|       | 64  | 14 x 14      | 0.80      | 1.70          |
|       | 80  | 12 x 12      | 0.50      | 1.70          |
|       | 100 | 14 x 14      | 0.50      | 1.70          |
|       | 120 | 14 x 14      | 0.40      | 1.70          |
|       | 128 | 14 x 20      | 0.50      | 1.70          |
|       | 144 | 20 x 20      | 0.50      | 1.70          |
| TQFP  | 80  | 14 x 14      | 0.65      | 1.20          |
|       | 100 | 12 x 12      | 0.40      | 1.20          |
|       | 120 | 14 x 14      | 0.40      | 1.70          |
|       | 144 | 20 x 20      | 0.50      | 1.70          |
| BGA   | 112 | 10 x 10      | 0.80      | 1.40          |
|       | 112 | 10 x 10      | 0.80      | 1.20          |
|       | 176 | 13 x 13      | 0.80      | 1.40          |
| LGA   | 113 | 8 x 8        | 0.65      | 1.20          |
| HWQFN | 28  | 5 x 5        | 0.50      | 0.80          |
| QFN   | 32  | 5 x 6        | 0.50      | 0.95          |
| TFLGA | 64  | 6 x 6        | 0.65      | 1.05          |
|       | 85  | 7 x 7        | 0.65      | 1.05          |

注:

表中未包含的封装类型, 请查阅硬件手册或到瑞萨网站获取相关信息

## 瑞萨芯片的典型封装图



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