RNA62782LP

CMOS System Reset IC

R03DS0054EJ0202
Rev.2.02
Mar 01, 2013

Description

RNA62782 is microcomputer and system reset signal to be generated.
Delay time of reset is released at the internal circuit fixed to 100 ms, the external components unnecessary.

Features

- Reset detection voltage: 4.0 V ± 4.0%
- Built-in long delay time: 100 ms
- Circuit current: 10 μA
- Open drain output
- Wide supply voltage range: 1.8 V to 5.5 V

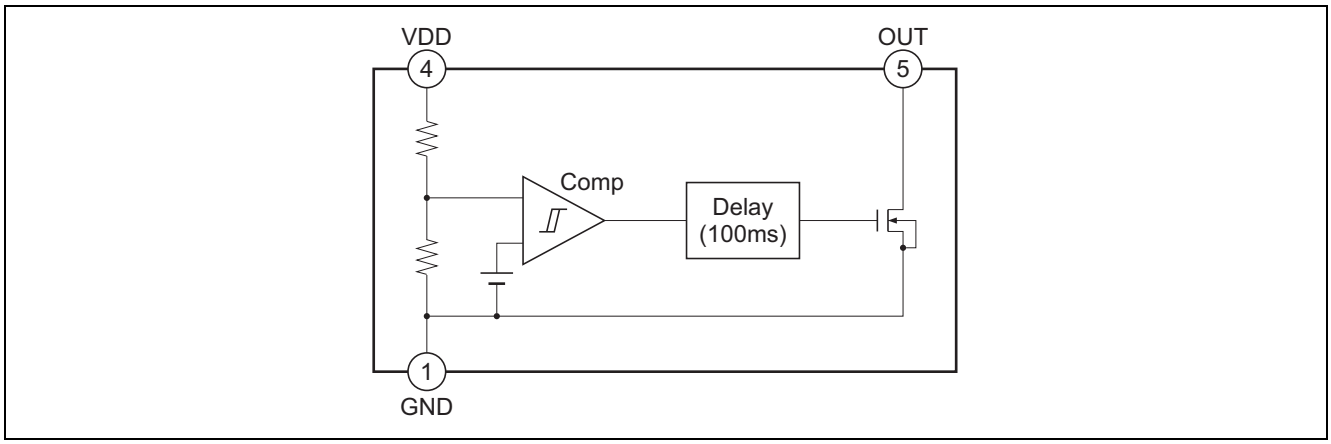
Ordering Information

Part Name	Package Type	Package Code	Package Abbreviation	Taping Abbreviation (Quantity)	Surface Treatment
RNA62782LPH1	MPAK-5	PLSP0005ZB-A	LP	H (3,000 pcs/reel)	1 (Sn/Bi)

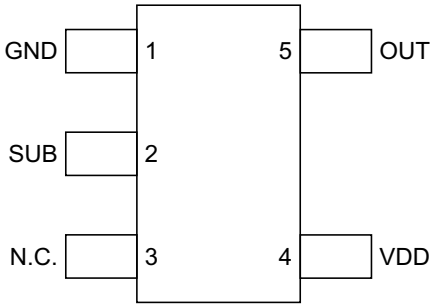
Application

- Power supply voltage monitoring for microprocessors
- Computers and notebook computers
- Digital still camera, digital video camera, and PDA
- Industrial equipment

Block Diagram



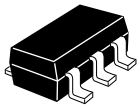
Pin Arrangement



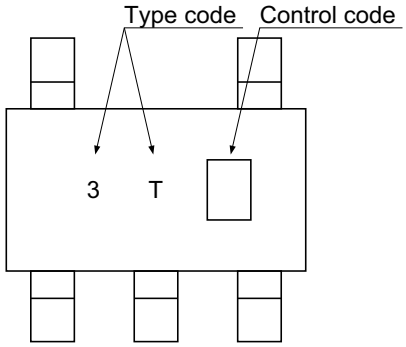
(Top view)

Mark Indication

RNA62782LP (Example)



MPAK-5



Control code	Starting in January "A", "B", "C", "D", "E", "F", "G", "H", "J", "K", "L", "M"

Pin Description

Pin No.	Pin Name	I/O	Function
1	GND	—	• Ground
2	SUB	—	• TAB is connected to inside. • Same as 1 pin and ground.
3	N.C.	—	• No Connection
4	VDD	—	• Sorcing power-supply voltage. (To detect this voltage)
5	OUT	O	• Power-supply voltage reaches the value below the detection voltage, low is output • Open drain output • Range pull-up resistance: 2.2(kΩ) to 100(kΩ)

Absolute Maximum Ratings

Item	Symbol	Ratings	Unit
Supply voltage	V_{DD}	6.5	V
Output voltage (open-drain type)	V_{OUT}	–0.3 to +6.5	V
Input voltage	V_{IN}	–0.3 to V_{DD}	V
Output current	I_{OUT}	6	mA
Power dissipation	Pd	120 (Ta = 25°C)	mW
Operating temperature	Topr	–30 to +85	°C
Storage temperature	Tstg	–40 to +125	°C

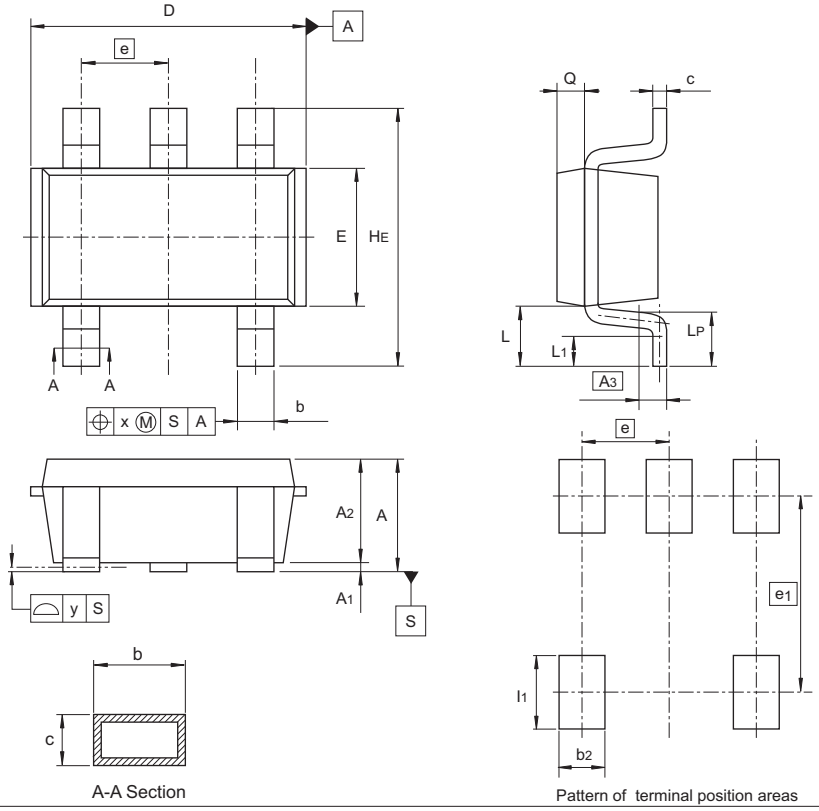
Electrical Characteristics

(V_{DD} = 5.0 V, Ta = 25°C, unless otherwise noted)

Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Threshold operating voltage	V_{OUL}	—	—	0.9	V	R_L = 2.2 (kΩ), V_{OUT} < 0.4 V
Circuit current	I_{DD}	—	10	20	μA	V_{DD} = 5.0 V, V_{OUT} = Hi (V_{DD})
Detecting voltage	V_S	3.84	4.00	4.16	V	
Detecting voltage temperature coefficient	$V_S/\Delta T$	—	±100	—	ppm/°C	
Hysteresis voltage	V_{HYS}	50	80	110	mV	
Output low voltage	V_{OL}	—	0.2	0.4	V	I_{OUT} = 4 mA, V_{DD} = 3.5 V
Output leakage current	I_{LK}	—	—	30	nA	V_{OUT} = V_{DD} = 5.0 V
Delay time	td	60	100	140	ms	

Package Dimensions

Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
MPAK-5	SC-74A	PLSP0005ZB-A	MPAK-5 / MPAK-5V	0.015g



Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
A	1.0	–	1.4
A_1	0	–	0.1
A_2	1.0	1.1	1.3
$\boxed{A_3}$	–	0.25	–
b	0.35	0.4	0.5
c	0.11	0.16	0.26
D	2.8	2.95	3.1
E	1.5	1.6	1.8
$\boxed{e}$	–	0.95	–
H_E	2.5	2.8	3.0
L	0.3	–	0.7
L_1	0.1	–	0.5
L_P	0.2	–	0.6
x	–	–	0.05
y	–	–	0.05
b_2	–	–	0.55
$\boxed{e_1}$	–	2.15	–
l_1	–	–	0.85
Q	–	0.3	–

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