

RJK4034DJE

400V - 1.6A - 场效应晶体管
快速电源开关

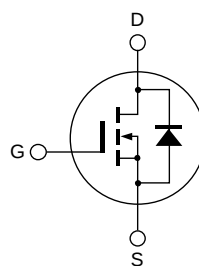
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修订版本 1.00
Nov 05, 2012

特点

- 低漏极/源极通态电阻
 $R_{DS(on)} = 3.7 \Omega$ 典型值 ($I_D = 0.8 A$, $V_{GS} = 10 V$, $T_a = 25^\circ C$)
- 低驱动电流
- 快速开关时间

封装形式

RENESAS 封装代码: PRSS0003DC-A
(封装名称: TO-92 Mod)



1. 源极
2. 漏极
3. 栅极

绝对最大额定值

($T_a = 25^\circ C$)

参数	符号	额定值	单位
漏极/源极电压	V_{DSS}	400	V
栅极/源极电压	V_{GSS}	± 30	V
漏极电流	I_D 注1	1.6	A
脉冲漏极电流	$I_{D(pulse)}$ 注2	3.2	A
体二极管反向漏极电流	I_{DR} 注1	1.6	A
体二极管反向脉冲漏极电流	$I_{DR(pulse)}$ 注2	3.2	A
沟道最大容许损耗	P_{ch} 注3	0.9	W
沟道-环境热阻	θ_{ch-a}	139	$^\circ C/W$
沟道温度	T_{ch}	150	$^\circ C$
储存温度	T_{stg}	-55 to +150	$^\circ C$

- 注:
1. 限于 T_{ch} 的最大值
 2. 脉宽限于安全工作区域
 3. 在 $T_c = 25^\circ C$ 的容许值

电特性

(Ta = 25°C)

参数	符号	最小值	典型值	最大值	单位	测定条件
漏极/源极破坏电压	$V_{(BR)DSS}$	400	—	—	V	$I_D = 10 \text{ mA}$, $V_{GS} = 0$
漏极截止电流	I_{DSS}	—	—	1	μA	$V_{DS} = 400 \text{ V}$, $V_{GS} = 0$
栅极截止电流	I_{GSS}	—	—	± 0.1	μA	$V_{GS} = \pm 30 \text{ V}$, $V_{DS} = 0$
栅极/源极截止电压	$V_{GS(off)}$	3	—	5	V	$V_{DS} = 10 \text{ V}$, $I_D = 1 \text{ mA}$
静态漏极/源极通态电阻	$R_{DS(on)}$	—	3.7	4.5	Ω	$I_D = 0.8 \text{ A}$, $V_{GS} = 10 \text{ V}$ 注4
输入电容	C_{iss}	—	117	—	pF	$V_{DS} = 25 \text{ V}$ $V_{GS} = 0$ $f = 1 \text{ MHz}$
输出电容	C_{oss}	—	18	—	pF	
反向传输电容	C_{rss}	—	2	—	pF	
接通延迟时间	$t_{d(on)}$	—	11	—	ns	$I_D = 0.8 \text{ A}$ $V_{GS} = 10 \text{ V}$ $R_L = 300 \Omega$ $R_g = 10 \Omega$
上升时间	t_r	—	11	—	ns	
关断延迟时间	$t_{d(off)}$	—	18	—	ns	
下降时间	t_f	—	54	—	ns	
栅极充电电荷量	Q_g	—	4.9	—	nC	$V_{DD} = 360 \text{ V}$ $V_{GS} = 10 \text{ V}$ $I_D = 1.6 \text{ A}$
栅极/源极充电电荷量	Q_{gs}	—	1.0	—	nC	
栅极/漏极充电电荷量	Q_{gd}	—	2.8	—	nC	
体二极管正向电压	V_{DF}	—	0.87	1.45	V	$I_F = 1.6 \text{ A}$, $V_{GS} = 0$ 注4
体二极管反向恢复时间	t_{rr}	—	193	—	ns	$I_F = 1.6 \text{ A}$, $V_{GS} = 0$ $di_F/dt = 100 \text{ A}/\mu\text{s}$

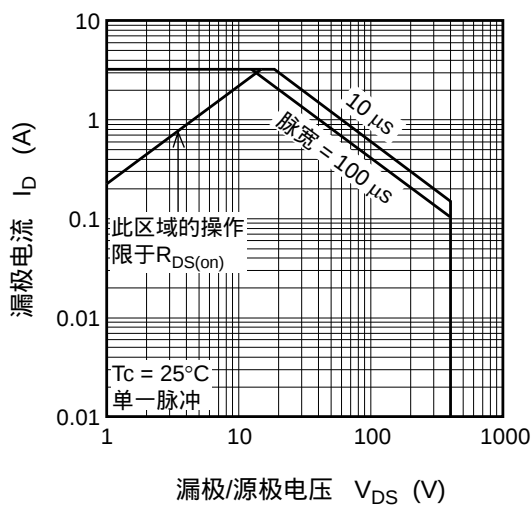
注: 4. 脉冲测试

5. 由于此器件配备高电压 FET 芯片 ($V_{DSS} \geq 400 \text{ V}$), 含高电压供给。因此, 请务必确认漏极终端与其他终端之间的静电放电。

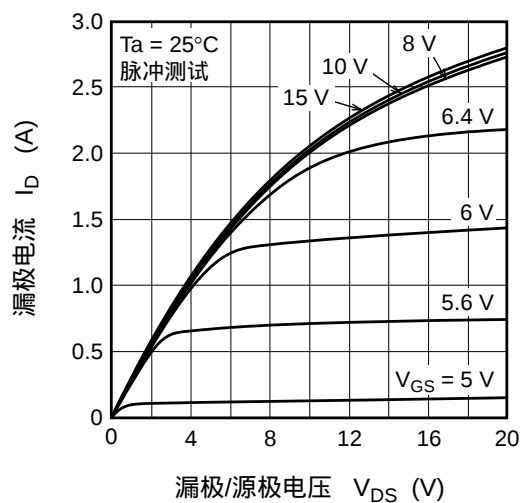
6. 此为静电敏感器件, 请谨慎处理此产品。

主要特性

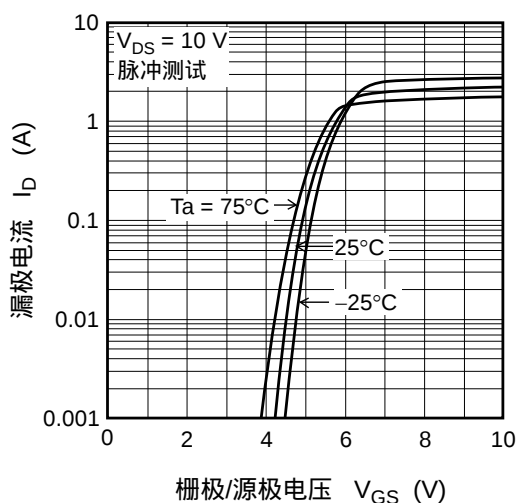
最大安全工作区域



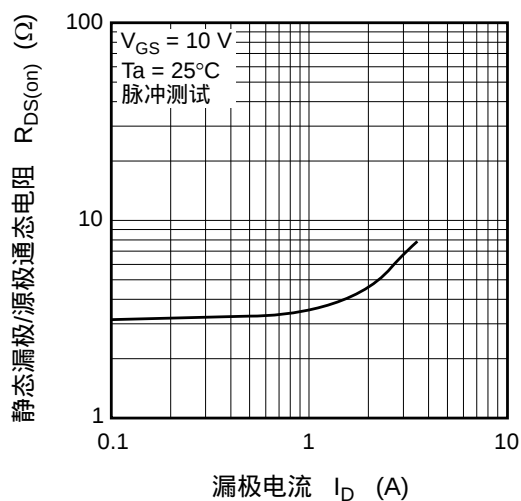
典型输出特性



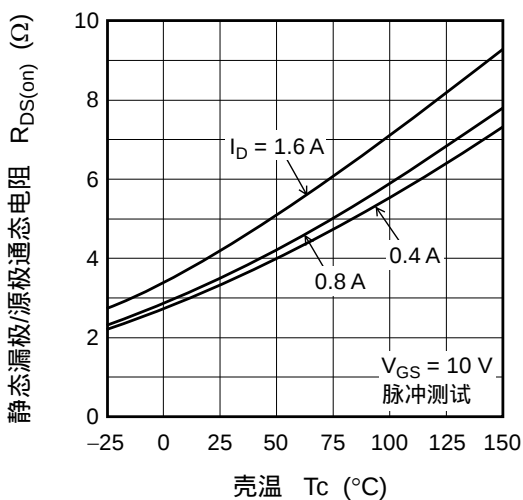
典型传输特性



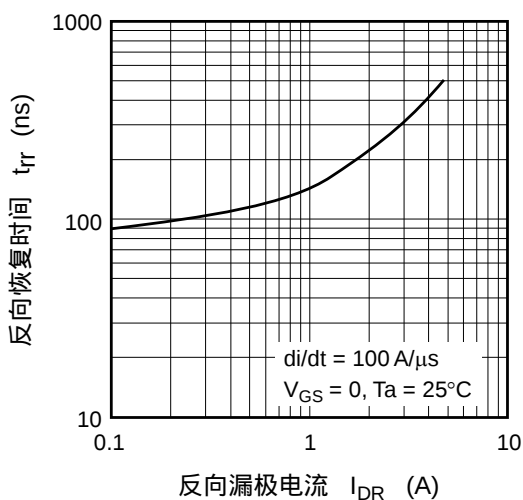
静态漏极/源极通态电阻-漏极电流 (典型)



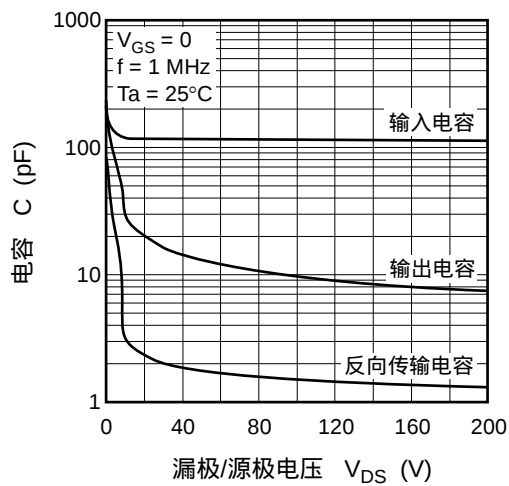
静态漏极/源极通态电阻-壳温 (典型)



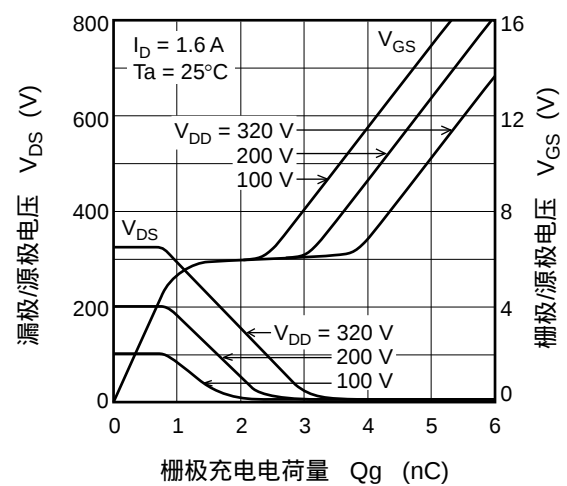
体二极管反向恢复时间 (典型)



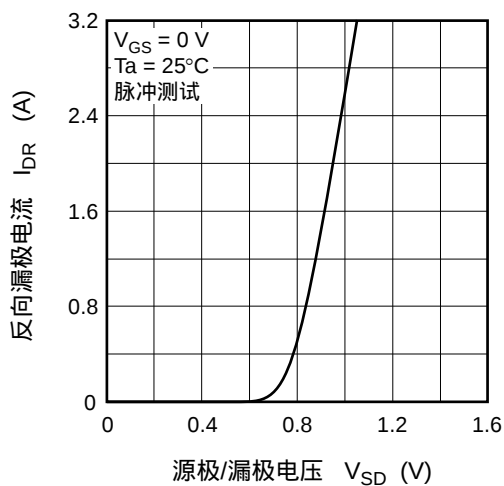
典型电容-漏极/源极电压



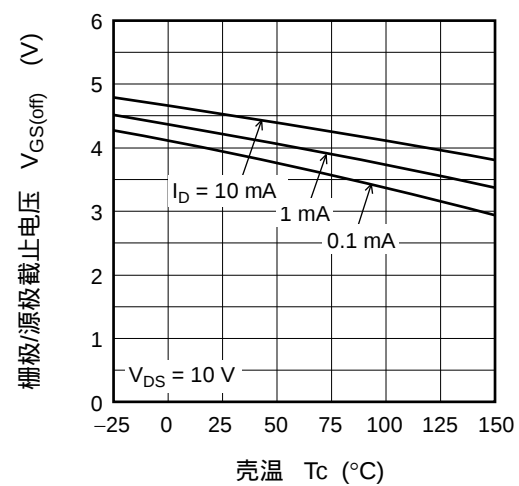
输入时序特性 (典型)



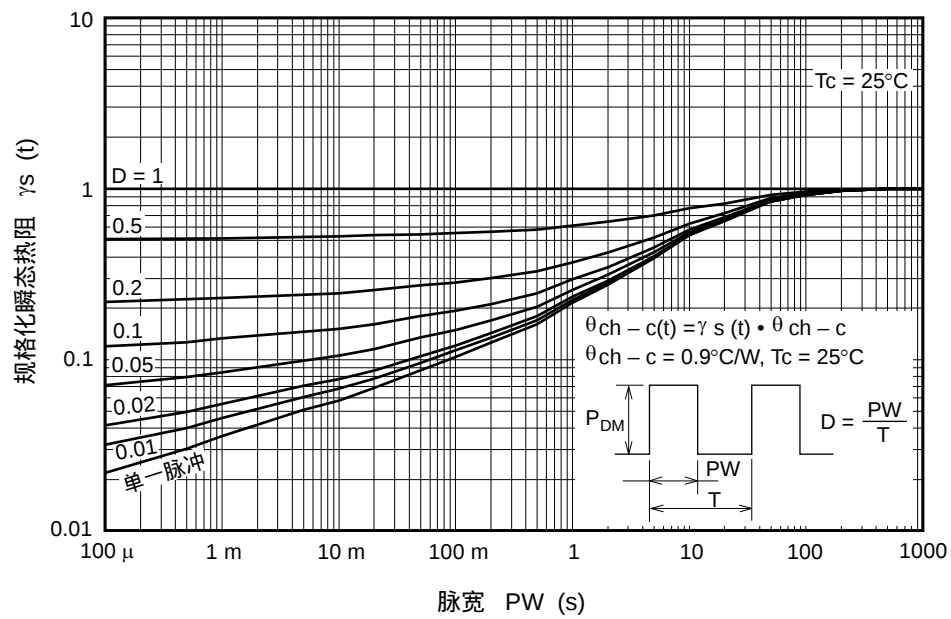
反向漏极电流-源极/漏极电压 (典型)



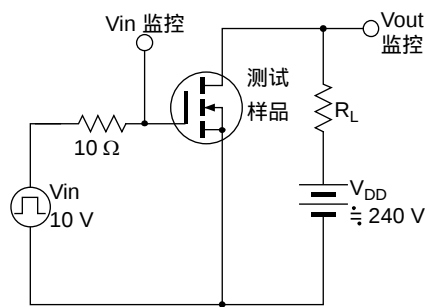
栅极/源极截止电压-亮温 (典型)



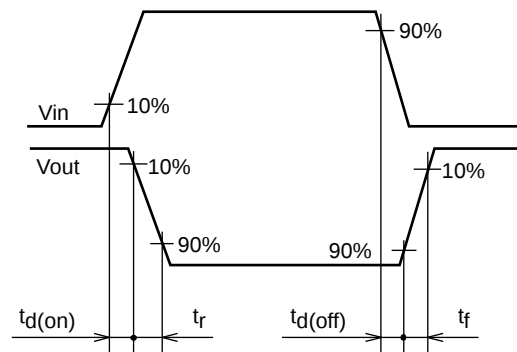
瞬态热阻特性规格化



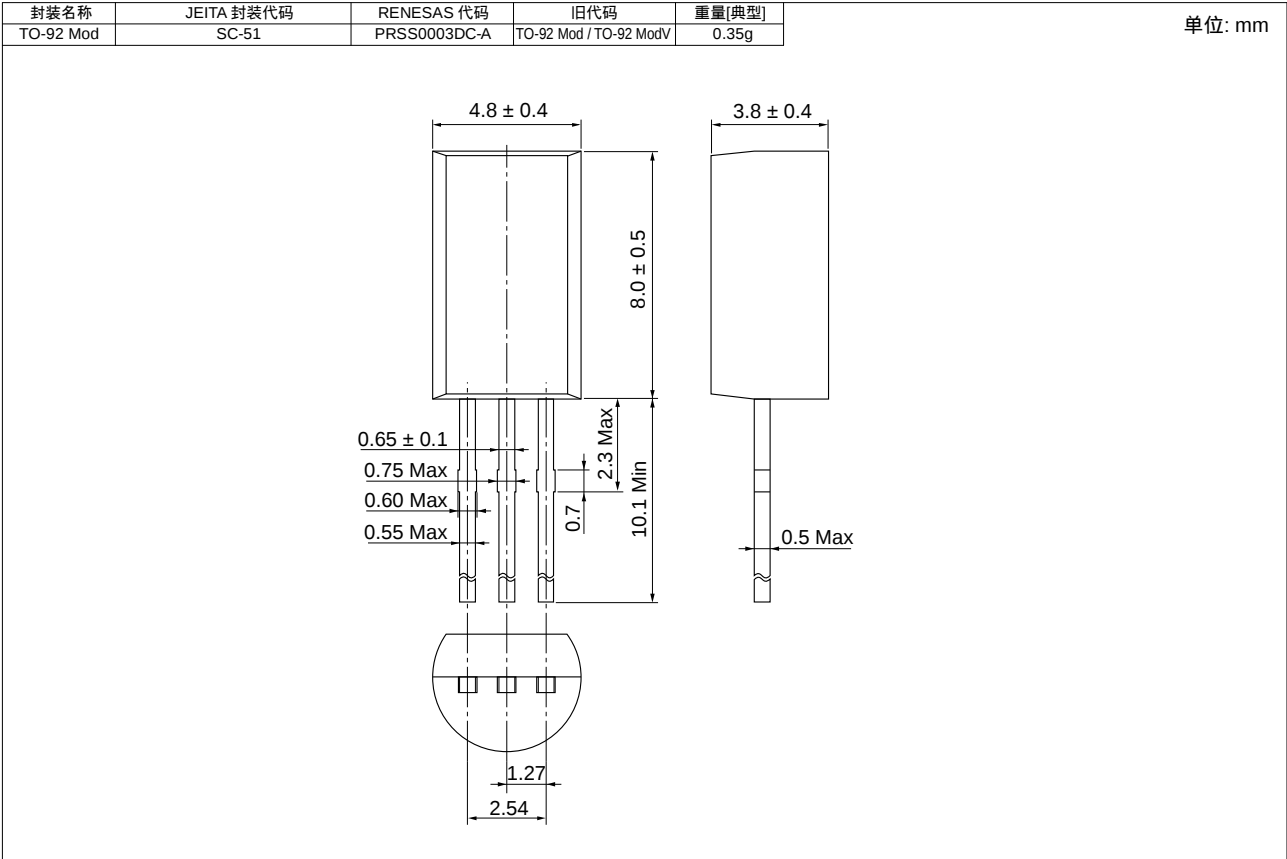
开关时间测定电路



波形



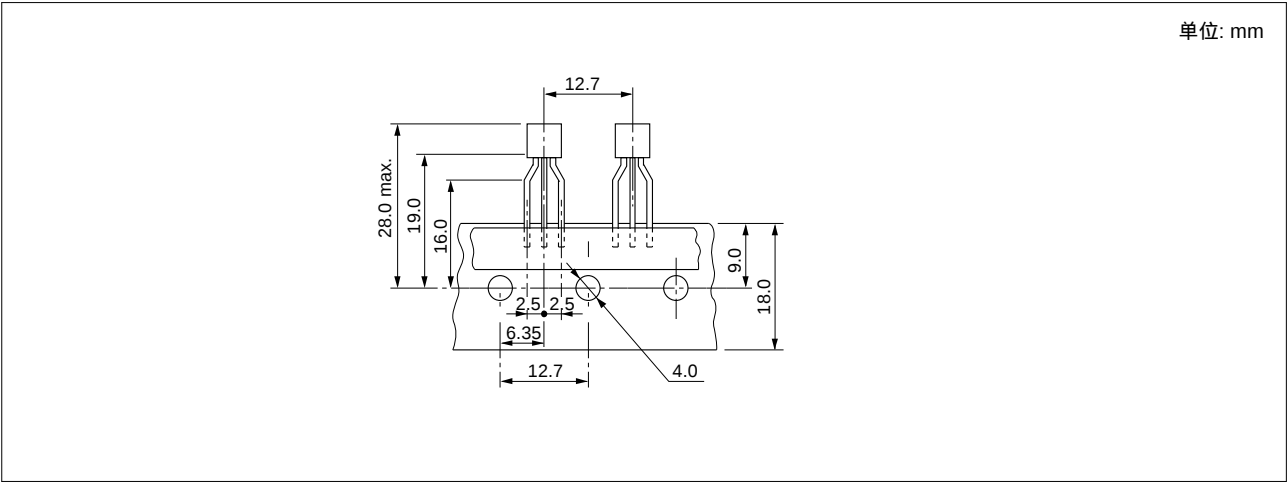
封装尺寸



订购信息

订购型号	数量	运输包装
RJK4034DJE-00#Z0	2500 枚	带卷包装

注： 下图显示引脚弯曲方式。



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