RJH1BF6RDPQ-80

硅 N 沟道绝缘栅双极晶体管
快速电源开关

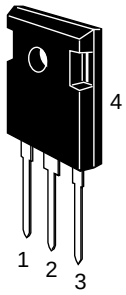
R07DS0393CJ0100
修订版本 1.00
Dec 05, 2011

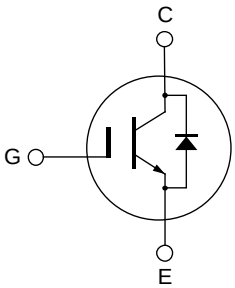
特点

- 电压谐振电路用途
- 逆导绝缘栅双极晶体管与单片体二极管
- 用于感应加热的高效率产品
- 低集电极/发射极饱和电压
  $V_{CE(sat)}$ = 1.7 V 典型值 (I_C = 30 A, V_{GE} = 15 V, Tj = 25°C)
- 栅极/发射极额定电压 ±30 V
- 无铅电镀引脚

封装形式

RENESAS 封装代码: PRSS0003ZE-A
(封装名称: TO-247)





1. 栅极
2. 集电极
3. 发射极
4. 集电极

绝对最大额定值

(Tc = 25°C)

参数		符号	额定值	单位
集电极/发射极电压		V_{CES}	1100	V
栅极/发射极电压		V_{GES}	±30	V
集电极电流	Tc = 25°C	I_C	55	A
	Tc = 100°C	I_C	30	A
集电极脉冲电流		ic(peak) 注 1	100	A
集电极/发射极二极管正向电流		i_{DF}	20	A
集电极最大允许功率损耗		P_C	227.2	W
结壳热阻		θj-c	0.55	°C/W
结温		Tj	150	°C
储存温度		Tstg	–55 to +150	°C

注: 1. 脉冲宽度限于安全工作区域。

电特性

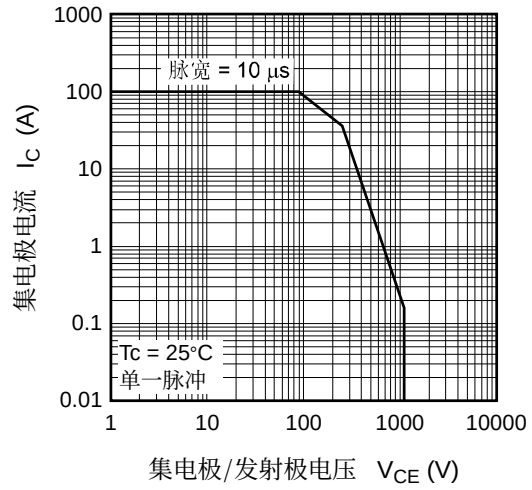
(Tj = 25°C)

参数	符号	最小值	典型值	最大值	单位	测定条件
集电极/发射极断路电流	I_{CES}	—	—	100	μA	V_{CE} = 1100 V, V_{GE} = 0
栅极/发射极漏泄电流	I_{GES}	—	—	±1	μA	V_{GE} = ±30 V, V_{CE} = 0
栅极/发射极截止电压	$V_{GE(off)}$	3.5	5.0	7.0	V	V_{CE} = 10 V, I_C = 1 mA
集电极/发射极饱和电压	$V_{CE(sat)}$	—	1.7	2.2	V	I_C = 30 A, V_{GE} = 15V 注 2
		—	2.0	2.7	V	I_C = 55 A, V_{GE} = 15V 注 2
输入电容	Cies	—	2595	—	pF	V_{CE} = 25 V V_{GE} = 0 V f = 1 MHz
输出电容	Coes	—	54	—	pF	
反向传输电容	Cres	—	44	—	pF	
接通延迟时间	$t_{d(on)}$	—	49	—	ns	I_C = 30 A V_{CE} = 600 V, V_{GE} = 15 V Rg = 5 Ω 注 2 电阻负载
上升时间	t_r	—	44	—	ns	
关断延迟时间	$t_{d(off)}$	—	142	—	ns	
下降时间	t_f	—	247	—	ns	
集电极/发射极二极管正向电压	V_F	—	3.0	3.9	V	I_F = 10 A 注 2

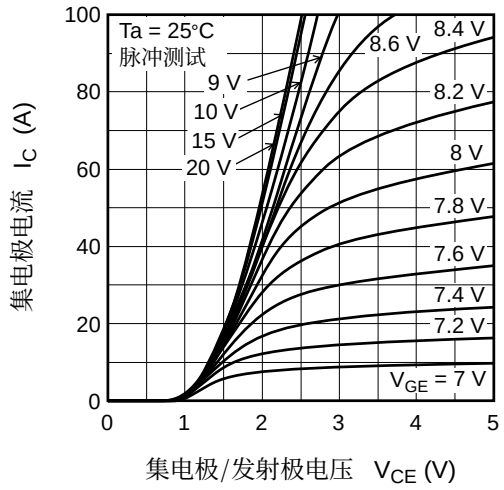
注: 2. 脉冲测试

主要特性

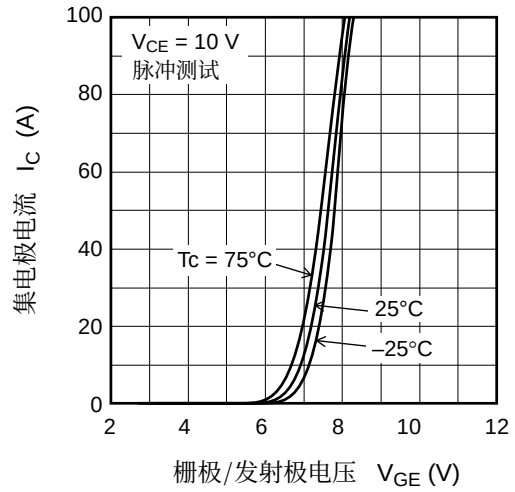
最大安全工作区域



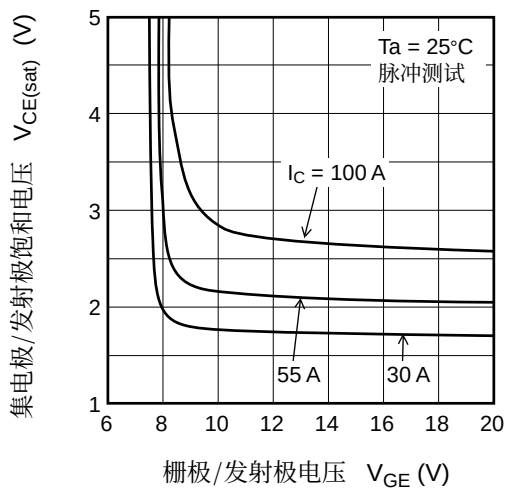
典型输出特性



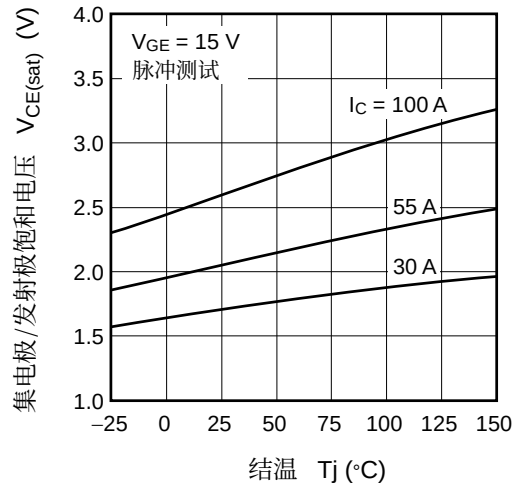
典型传输特性



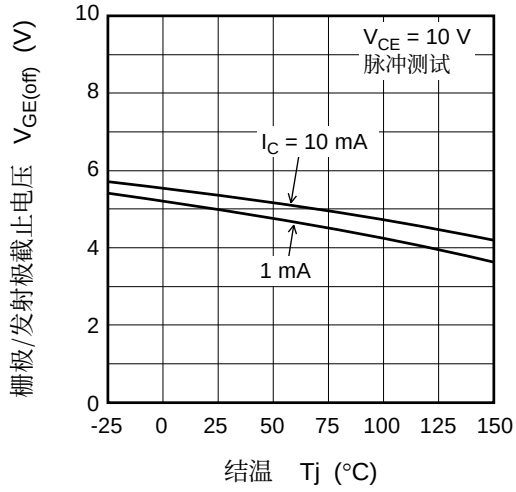
集电极/发射极饱和电压-栅极/发射极电压 (典型)



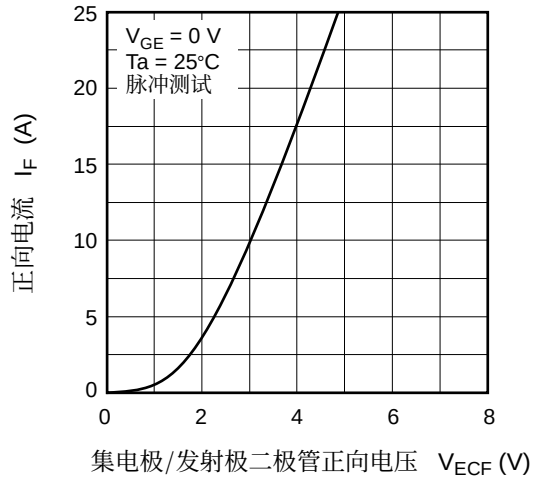
集电极/发射极饱和电压-结温 (典型)



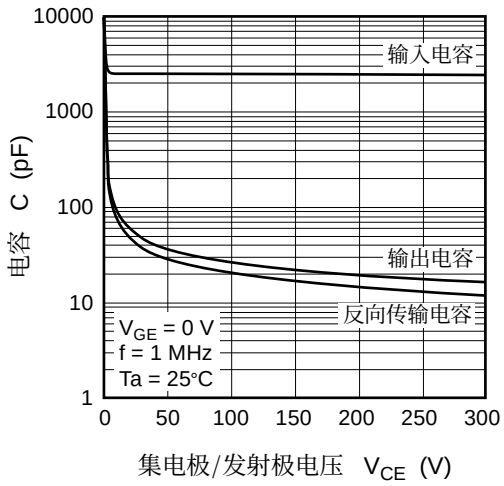
栅极/发射极截止电压-结温 (典型)



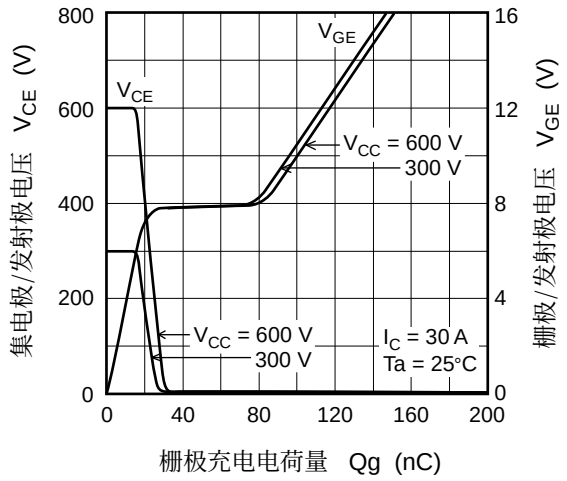
正向电流-正向电压(典型)



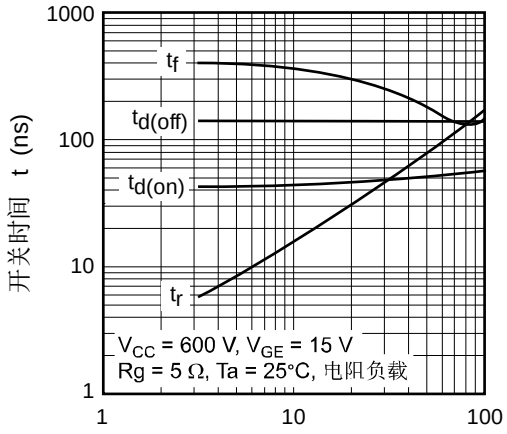
典型电容-集电极/发射极电压



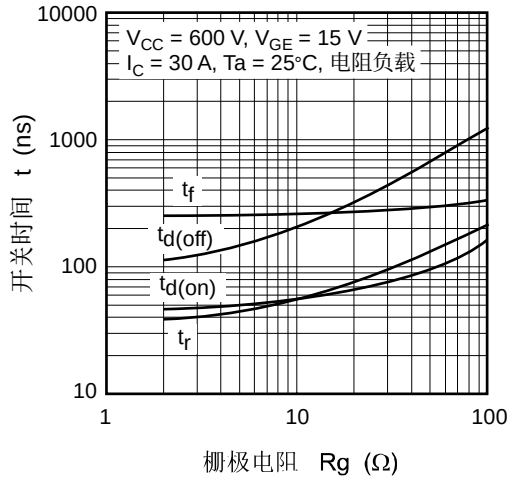
输入时序特性 (典型)



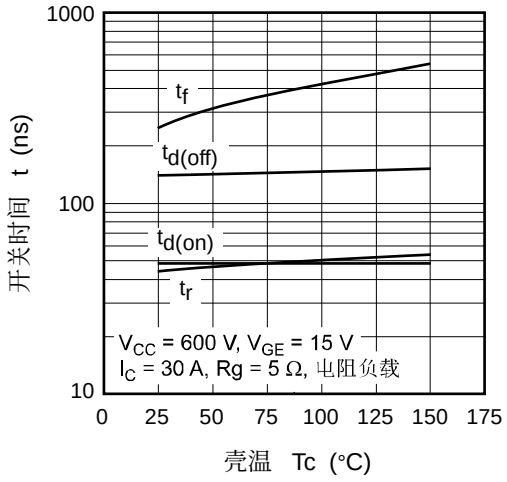
开关特性 (典型) (1)



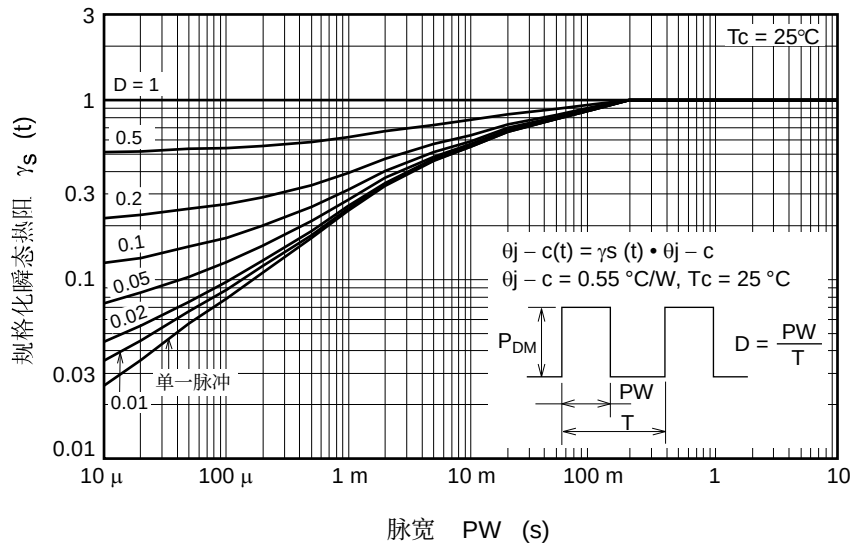
开关特性 (典型) (2)



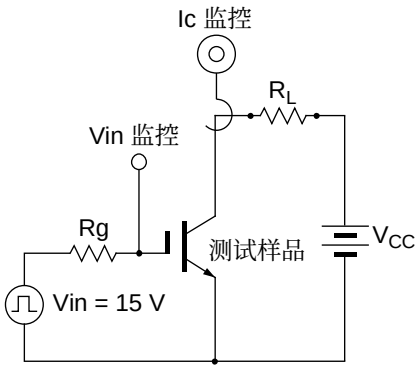
开关特性 (典型) (3)



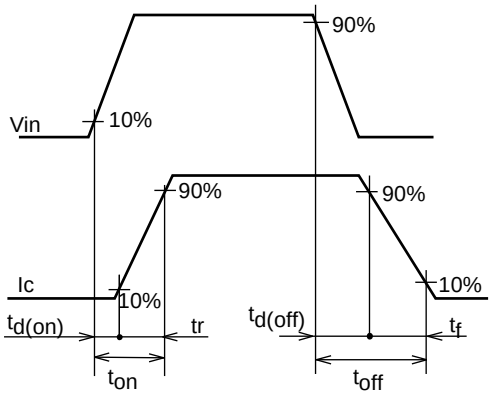
瞬态热阻特性规格化-脉宽



开关时间测定电路



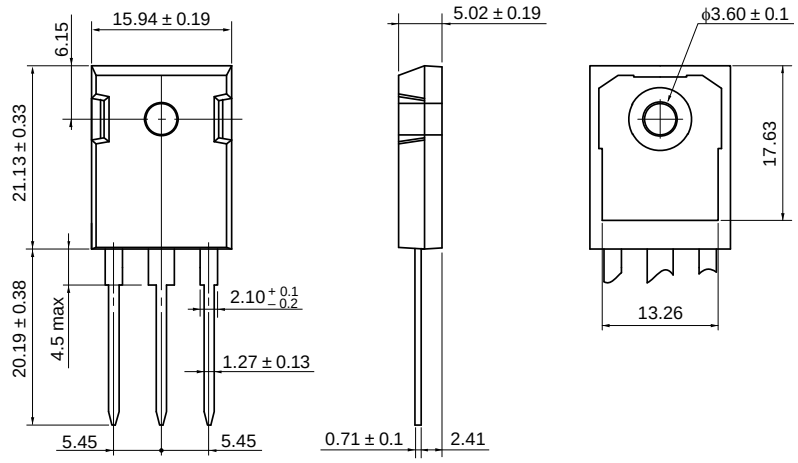
运行波形



封装尺寸

封装名称	JEITA 封装代码	RENESAS 代码	旧代码	重量[典型]
TO-247	—	PRSS0003ZE-A	—	6.0g

单位: mm



订购信息

订购型号	数量	运输包装
RJH1BF6RDPQ-80-#T2	450 枚	纸盒包装 (管状容器)

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