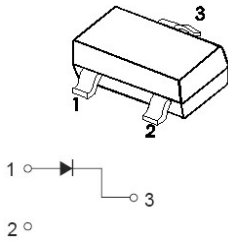
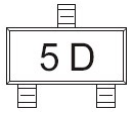


SOT-23

SOT-23 Plastic-Encapsulate Switching Diode



MARKING: 5D



**特征 Features**

- 开关速度小于 4.0nS; Fast Switching Device (TRR <4.0 nS)
- 最大功率耗散 350mW; Power Dissipation of 350mW
- 高稳定性和可靠性。High Stability and High Reliability
- 反向漏电流小。Low reverse leakage

**机械数据 Mechanical Data**

- 封装: SOT-23 封装 SOT-23 Small Outline Plastic Package
- 环氧树脂 UL 易燃等级 Epoxy UL: 94V-0
- 安装位置: 任意 Mounting Position: Any

极限值和温度特性(TA = 25℃ 除非另有规定)

**Maximum Ratings & Thermal Characteristics** (Ratings at 25℃ ambient temperature unless otherwise specified.)

参数 Parameters	符号 Symbol	数值 Value	单位 Unit
反向电压 Reverse Voltage	V <sub>R</sub>	100	V
反向峰值电压 Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	100	V
功率消耗 Power Dissipation	P <sub>d</sub>	350	mW
平均整流电流 Average Rectified Current	I <sub>o</sub>	300	mA
正向(不重复)浪涌电流 Non-Repetitive Peak Forward Surge Current @t=8.3ms; TA=25℃	I <sub>FSM</sub>	2.0	A
工作结温 Operating junction temperature	T <sub>j</sub>	150	℃
存储温度 Storage temperature range	T <sub>s</sub>	-55-+150	℃
热阻抗 Thermal Resistance from Junction to Ambient	R <sub>θJA</sub>	357	℃/W

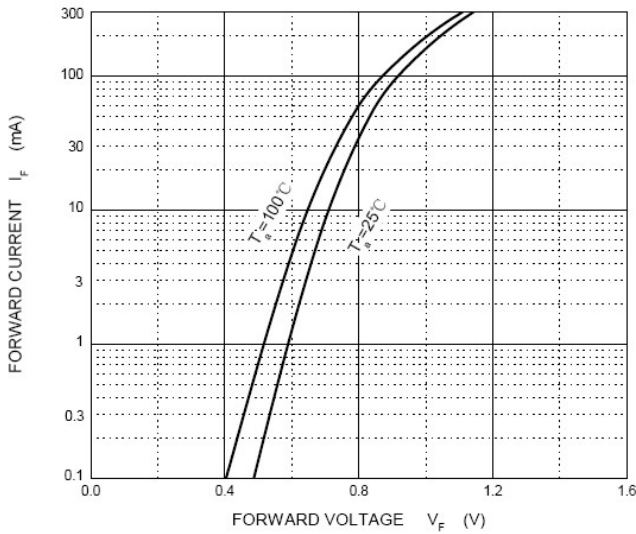
Valid provided that electrodes are kept at ambient temperature.

电特性 **Electrical Characteristics** (Ratings at 25℃ ambient temperature unless otherwise specified).

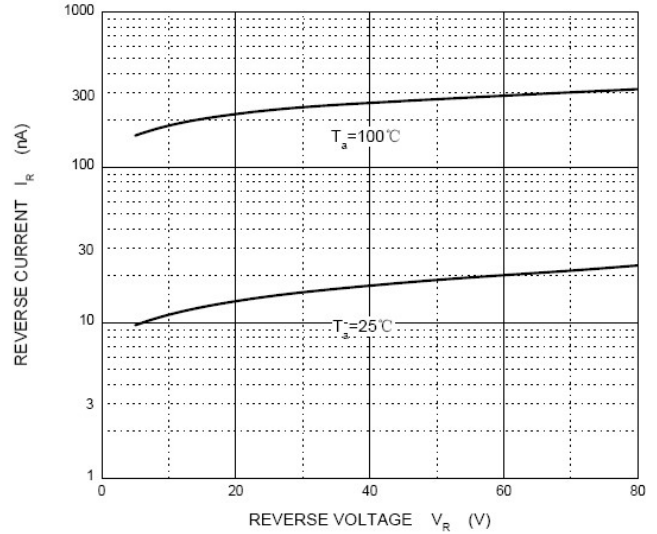
符号 Symbols	参数 Parameter	测试条件 Test Condition	界限 Limits		单位 Unit
			Min	Max	
V(BR)	反向电压 Reverse Voltage	IR=100uA	100		V
I <sub>R</sub>	反向漏电流 Reverse Leakage Current	VR=75V	---	1.0	uA
		VR=20V	---	25	nA
V <sub>F</sub>	正向电压 Forward Voltage	IF=1.0mA	---	0.715	V
		IF=10mA	---	0.855	
		IF=50mA	---	1.00	
		IF=150mA	---	1.25	
TRR	反向恢复时间 Reverse Recovery Time	IF= IR=10mA	---	4	nS
		RL=100Ω			
		IRR=0.1 X IR			
CT	结电容 Capacitance	VR=0V, f=1MHZ	---	2	pF

**Typical Characteristics**

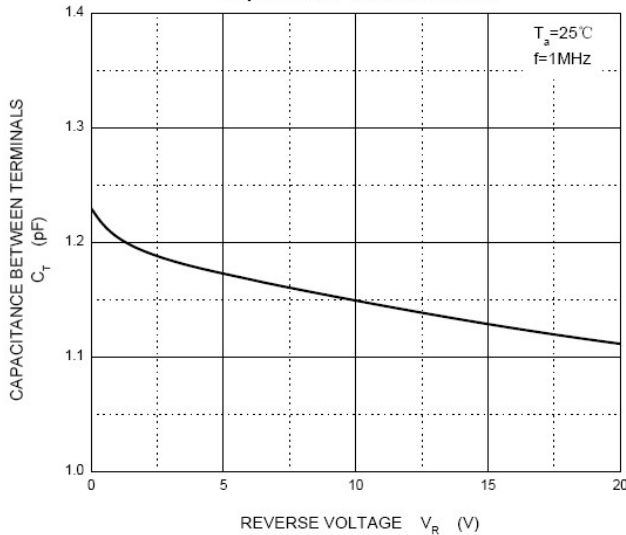
**Forward Characteristics**



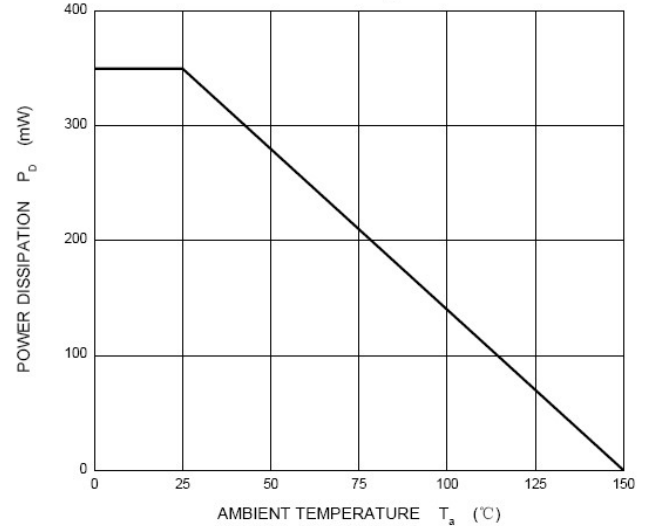
**Reverse Characteristics**



**Capacitance Characteristics**

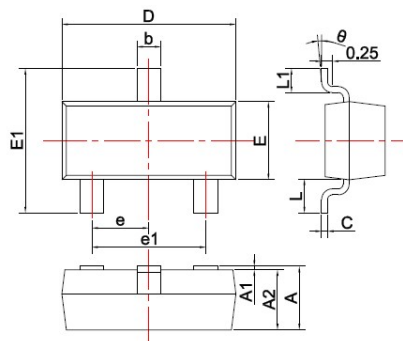


**Power Derating Curve**



**SOT-23 PACKAGE OUTLINE**

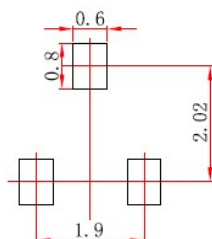
Plastic surface mounted package



SYMBOL	DIMENSIONS	
	MIN	MAX
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
θ	0°	8°

Unit: mm

焊盘设计参考 Precautions: PCB Design(Recommended land dimensions for SOT-23 diode. Electrode patterns for PCBs)



- Note:
1. Controlling dimension; in millimeters.
  2. General tolerance: ±0.05mm.
  3. The pad layout is for reference purposes only.