

MARKING:

**SOD-123**

**特征 Features**

**SOD-123 贴片塑封二极管**

- 开关速度小于 4.0nS; Fast Switching Device (TRR <4.0 nS)
- 最大功率耗散 500mW; Power Dissipation of 500mW
- 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: SOD-123 封装 SOD-123 Small Outline Plastic Package
- 极性: 色环端为负极Polarity: Color band denotes cathode end
- 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.)

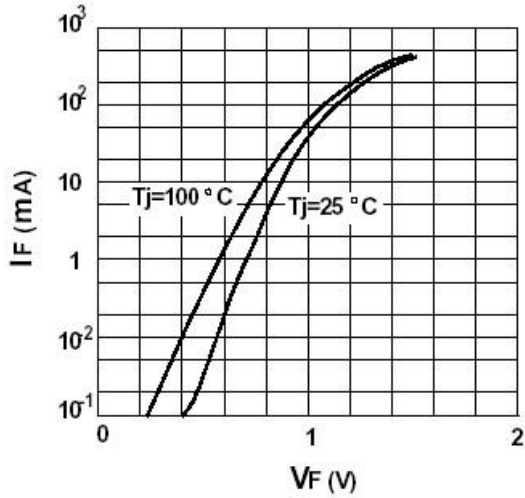
参数 Parameters	符号 Symbol	数值 Value	单位 Unit
反向峰值电压 Peak Reverse Voltage	V <sub>RM</sub>	100	V
功率消耗 Power Dissipation	P <sub>d</sub>	500	mW
工作结温 Operating junction temperature	T <sub>j</sub>	150	℃
存储温度 Storage temperature range	T <sub>STG</sub>	-65-+150	℃
热阻 Thermal Resistance from Junction to Ambient	R <sub>θJA</sub>	250	℃/W
平均整流电流 Average Rectified Current	I <sub>O</sub>	150	mA
正向(不重复)电流 Non-repetitive Peak Forward Current	I <sub>FM</sub>	300	mA
正向(不重复)浪涌电流 Peak Forward Surge Current @tp=1us; TA=25℃	I <sub>FSM</sub>	2.0	A

Valid provided that electrodes are kept at ambient temperature.

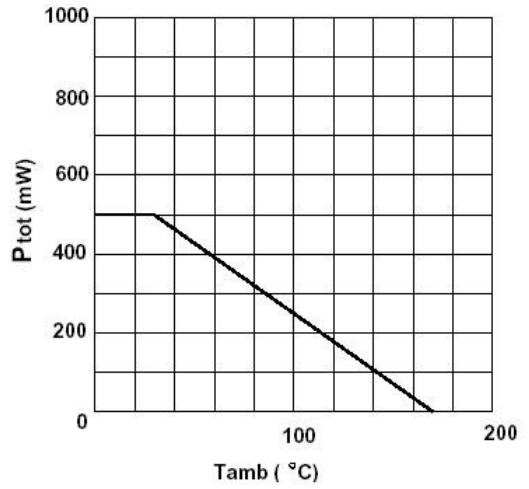
电特性 **Electrical Characteristics** (Ratings at 25℃ ambient temperature unless otherwise specified).

符号 Symbols	参数 Parameter	测试条件 Test Condition	界限 Limits		单位 Unit
			Min	Max	
<b>BV</b>	反向击穿电压 Breakdown Voltage	IR=100uA	100		V
<b>IR</b>	反向漏电流 Reverse Leakage Current	VR=20V	---	25	nA
		VR=20V Tj=150℃	---	50	uA
		VR=75	---	5	uA
<b>VF</b>	正向电压 Forward Voltage	IF=10mA	---	1.00	V
		IF=100mA	---	1.25	
<b>TRR</b>	反向恢复时间 Reverse Recovery Time	IF = IR = 10mA,	---	4	nS
		Irr=0.1XIR			
		RL=100Ω			
<b>C</b>	结电容 Capacitance	VR=0V, f=1MHZ	---	4	pF

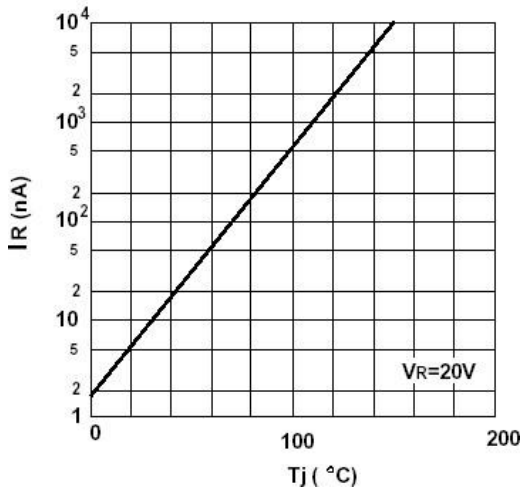
Forward characteristics



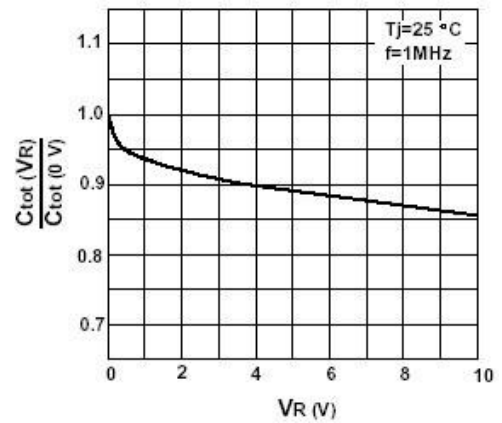
Admissible power dissipation versus ambient temperature



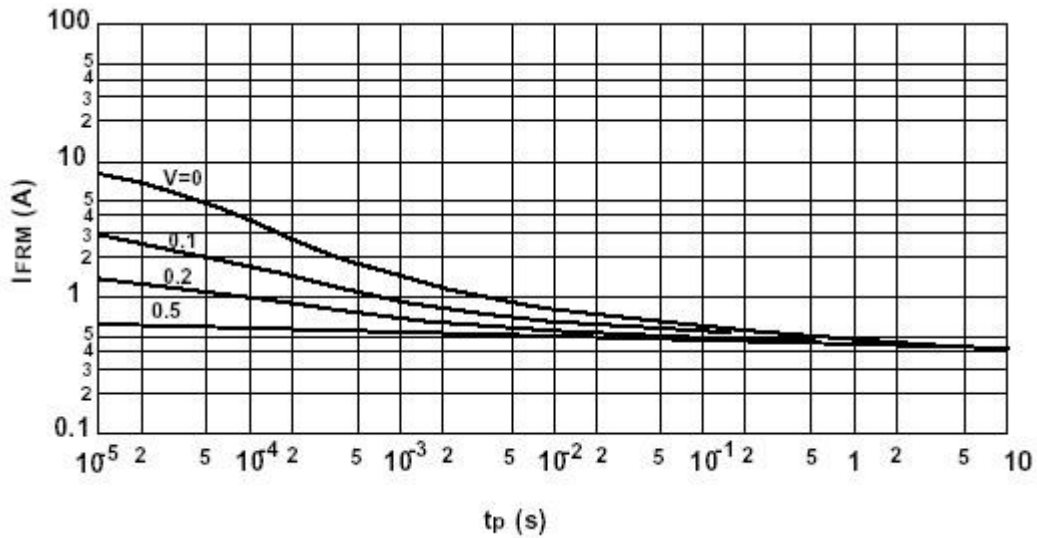
Leakage current versus junction temperature



Reverse capacitance VS. reverse voltage

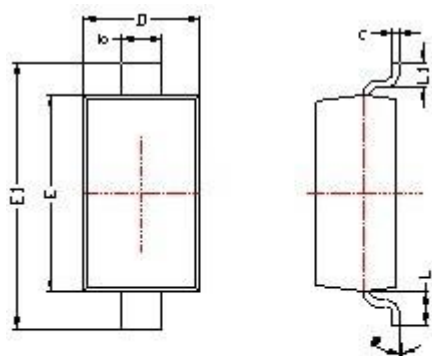


Admissible repetitive peak forward current VS. pulse duration

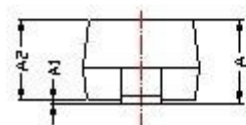


**SOD-123 PACKAGE OUTLINE**

Plastic surface mounted package



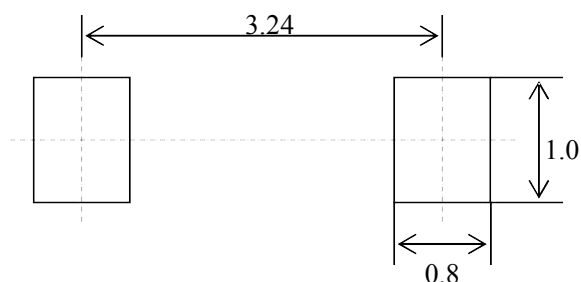
SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	1.050	1.250
A1	0.000	0.100
A2	1.050	1.150
b	0.450	0.650
c	0.080	0.150
D	1.500	1.700
E	2.600	2.800
E1	3.550	3.850
L	0.500REF	
L1	0.250	0.450
θ	0°	8°



焊盘设计参考

Precautions: PCB Design

Recommended land dimensions for SOD-123 diode. Electrode patterns for PCBs



中心距: 3.24  
 脚宽: 0.55  
 焊盘宽: 1.00  
 脚长: 0.50  
 焊盘长: 0.80

技术要求:

- 1, 塑封体尺寸: 2.70 X 1.60
- 2, 未注公差为: ±0.05
- 3, 所有单位: mm