

描述 / Descriptions

SOD-123 塑封封装 硅半导体二极管。
Silicon Diode in a SOD-123 Plastic Package.

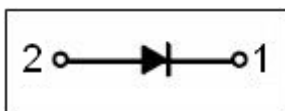
特征 / Features

低正向压降、保护环结构的瞬态保护、高电导。无卤产品。
Low forward voltage drop, Guard ring construction for transient Protection , High conductance.
HF Product.

用途 / Applications

半导体二极管。
Silicon Diode.

内部等效电路 / Equivalent Circuit



引脚排列 / Pinning



PIN1:Cathode PIN2:Anode

放大及印章代码 / h_{FE} Classifications & Marking

Marking	HSD
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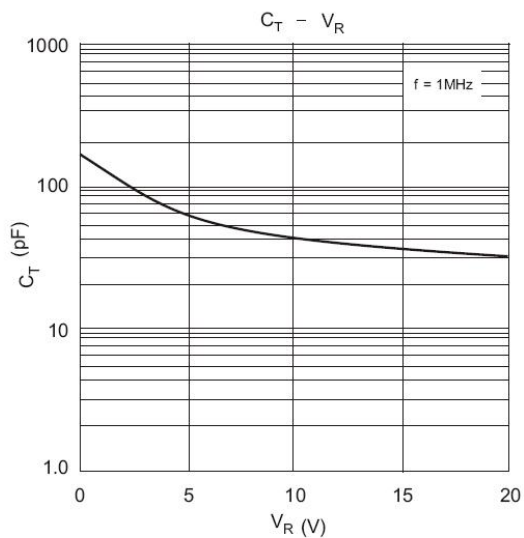
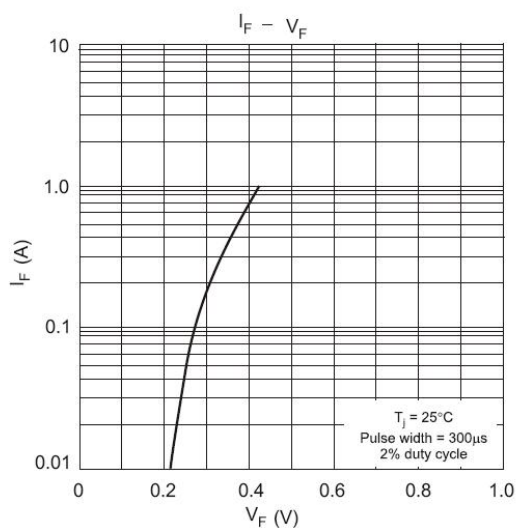
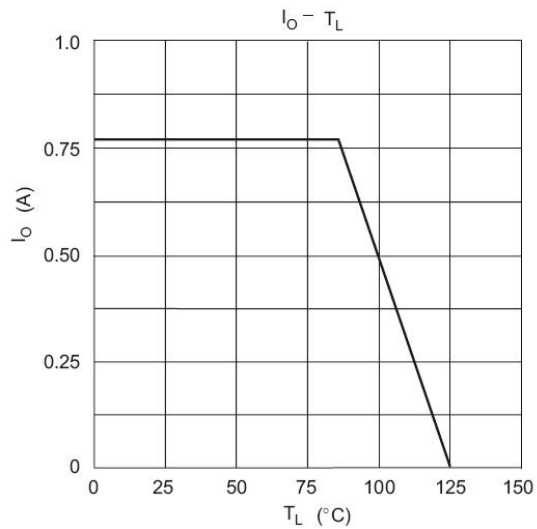
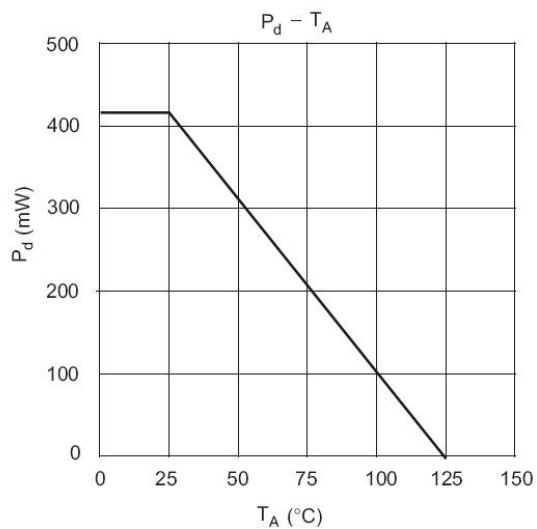
极限参数 / Absolute Maximum Ratings(Ta=25°C)

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Peak Repetitive Reverse Voltage	V_{RRM}	20	V
Working Peak Reverse Voltage, DC Reverse Voltage	V_{RWM}, V_R	20	V
RMS Reverse Voltage	$V_R (RMS)$	14	V
Non-Repetitive Peak Forward Surge Current	I_{FSM}	5.5	A
Average Rectified Output Current	I_O	0.5	A
Power Dissipation	P_d	410	mW
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	244	°C/W
Junction and Storage Temperature Range	T_j, T_{STG}	-65~125	°C
Voltage Rate of Change	dv/dt	1000	V/μs

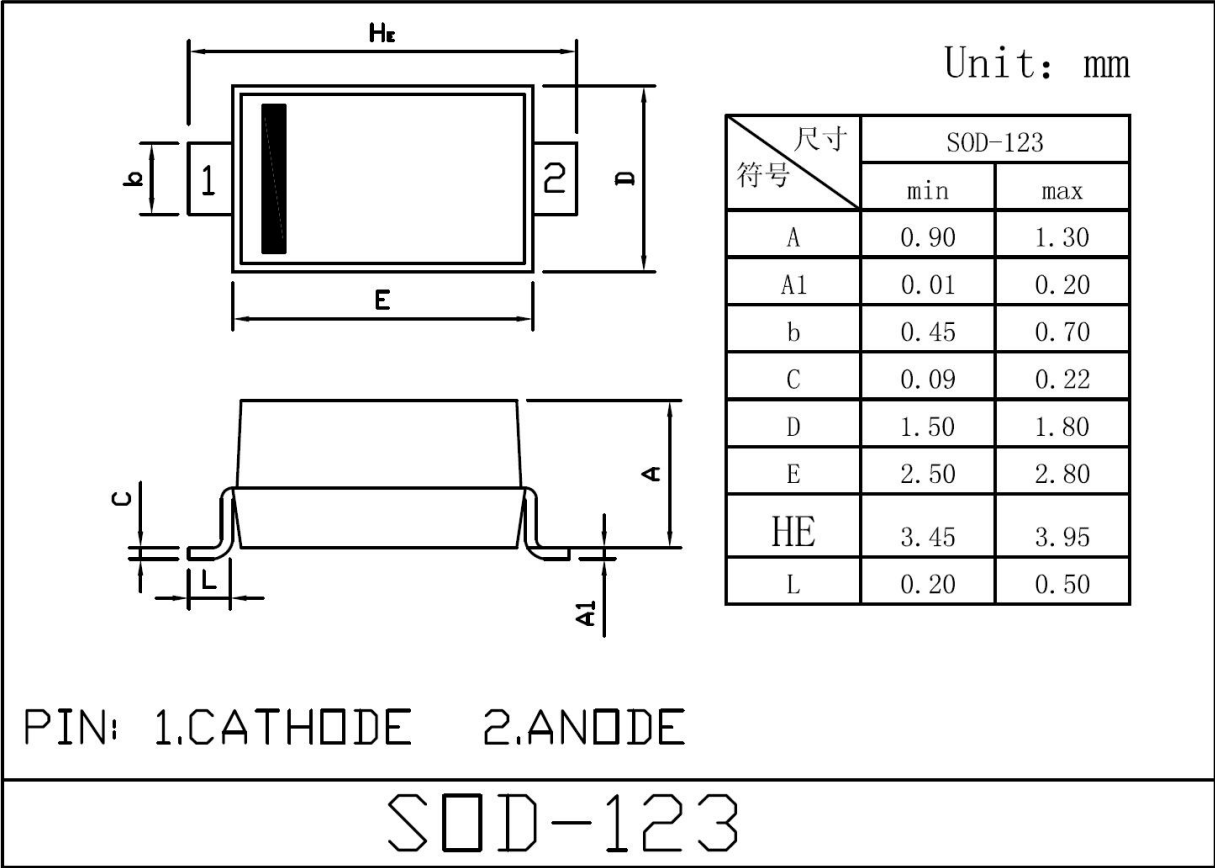
电性能参数 / Electrical Characteristics(Ta=25°C)

参数 Parameter	符号 Symbol	测试条件 Test Conditions	数值 Rating	单位 Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R=250\mu A$	20	V
Peak Forward Voltage	V_{FM}	$I_F=100mA \quad T_j=25^\circ C$	0.300	V
		$I_F=500mA \quad T_j=25^\circ C$	0.385	
		$I_F=100mA \quad T_j=100^\circ C$	0.220	
		$I_F=500mA \quad T_j=100^\circ C$	0.330	
Instantaneous Reverse Current	I_{RM}	$V_R=10V \quad T_j=25^\circ C$	75	μA
		$V_R=20V \quad T_j=25^\circ C$	250	
		$V_R=10V \quad T_j=100^\circ C$	5.0	mA
		$V_R=20V \quad T_j=100^\circ C$	8.0	
Capacitance	C_J	$V_R=0VDC \quad f=1.0MHz$	170	pF

电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions



印章说明 / Marking Instructions



说明：

H： 为公司代码

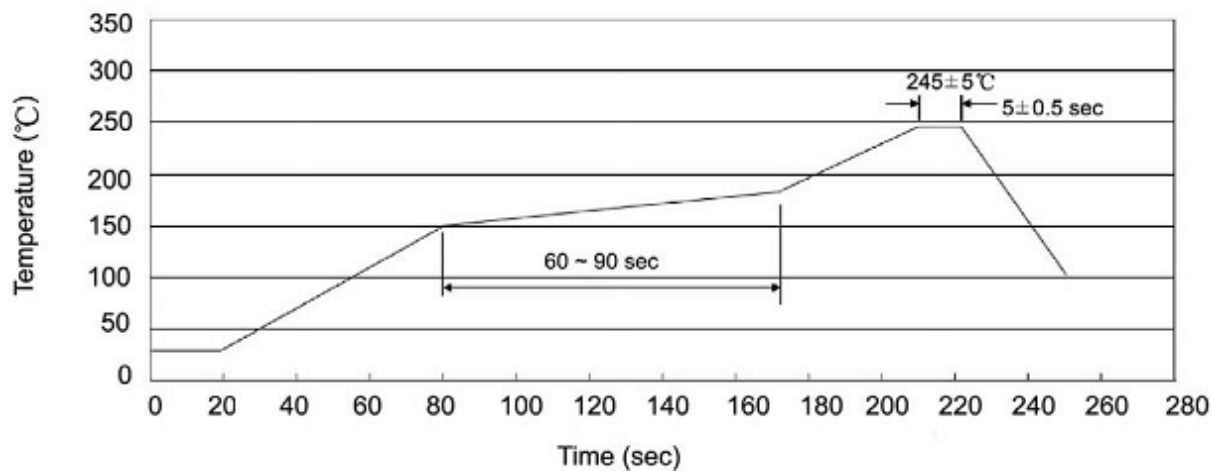
SD： 为型号代码

Note:

H: Company Code.

SD: Product Type.

回流焊温度曲线图(无铅) / Temperature Profile for IR Reflow Soldering(Pb-Free)



说明：

- 1、预热温度 150 ~ 180°C，时间 60 ~ 90sec;
- 2、峰值温度 245±5°C，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2 ~ 10°C/sec.

Note:

- 1.Preheating:150~180°C, Time:60~90sec.
- 2.Peak Temp.:245±5°C, Duration:5±0.5sec.
3. Cooling Speed: 2~10°C/sec.

耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions

温度：260±5°C

时间：10±1 sec.

Temp.:260±5°C

Time:10±1 sec

包装规格 / Packaging SPEC.

卷盘包装 / REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
SOD-123	3,000	10	30,000	6	180,000	7" ×8	180×120×180	390×385×205

使用说明 / Notices