

**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

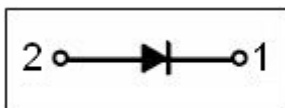
低正向压降、用于瞬态保护的护环结构。无卤产品。

Low forward voltage drop, Guard ring construction for transient Protection. 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

Model	B0530W	B0540W
Marking	HSE	HSF


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

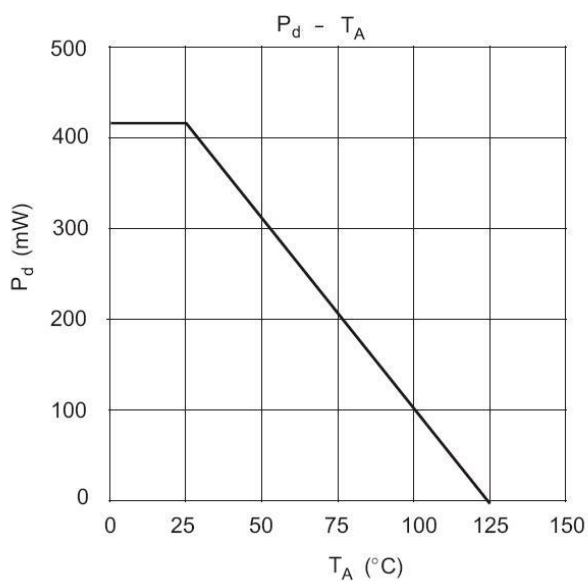
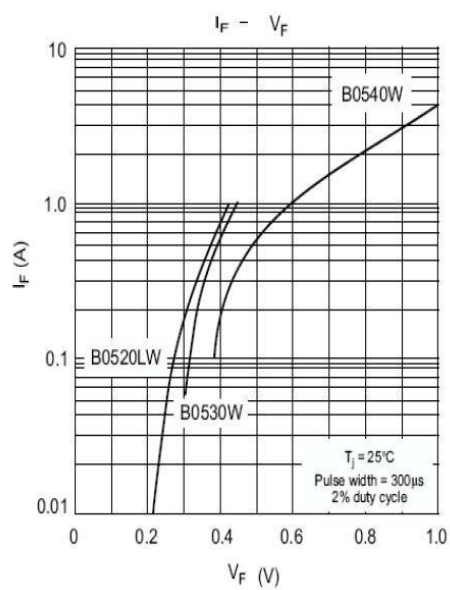
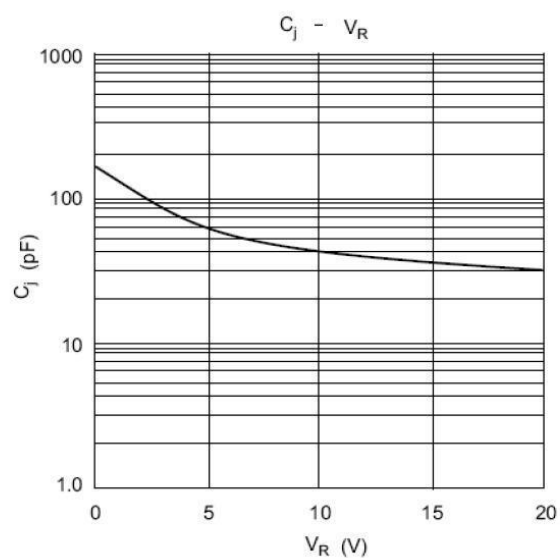
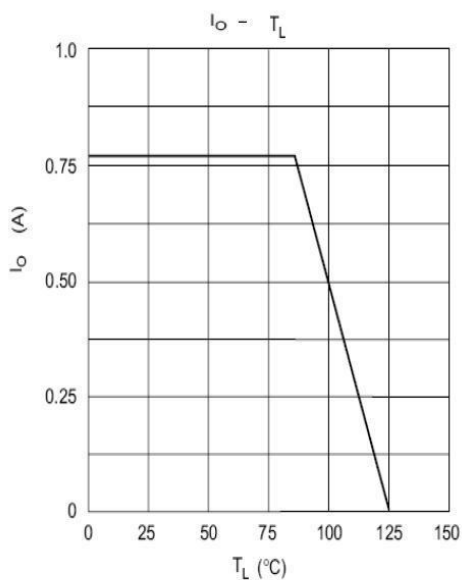
参数 Parameter	符号 Symbol	数值 Rating		单位 Unit
		B0530W	B0540W	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Reverse Voltage	V_{RRM} V_{RWM} V_R	30	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	21	28	V
Non-Repetitive Peak Forward Surge Current	I_{FSM}	5.5		A
Average Rectified Output Current @ $T_L = 100^\circ\text{C}$	I_O	0.5		A
Power Dissipation	P_D	410		mW
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	244		$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	T_j, T_{stg}	-65 to 125		$^\circ\text{C}$
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
			B0530W	B0540W	
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R=130\mu\text{A}$	30		V
		$I_R=20\mu\text{A}$		40	V
Peak Forward Voltage	V_{FM}	$I_F=100\text{mA}$ $T_j=25^\circ\text{C}$	0.375		V
		$I_F=500\text{mA}$ $T_j=25^\circ\text{C}$	0.430	0.510	
		$I_F=1.0\text{A}$ $T_j=25^\circ\text{C}$		0.620	
		$I_F=500\text{mA}$ $T_j=100^\circ\text{C}$		0.460	
		$I_F=1.0\text{A}$ $T_j=100^\circ\text{C}$		0.610	
Instantaneous Reverse Current	I_{RM}	$V_R=15\text{V}$ $T_j=25^\circ\text{C}$	20		μA
		$V_R=20\text{V}$ $T_j=25^\circ\text{C}$		10	
		$V_R=30\text{V}$ $T_j=25^\circ\text{C}$	130		
		$V_R=40\text{V}$ $T_j=25^\circ\text{C}$		20	
		$V_R=20\text{V}$ $T_j=100^\circ\text{C}$		5.0	mA
		$V_R=40\text{V}$ $T_j=100^\circ\text{C}$		13	
Capacitance	C_J	$V_R=0\text{V DC}$ $f=1.0\text{MHz}$	170		pF

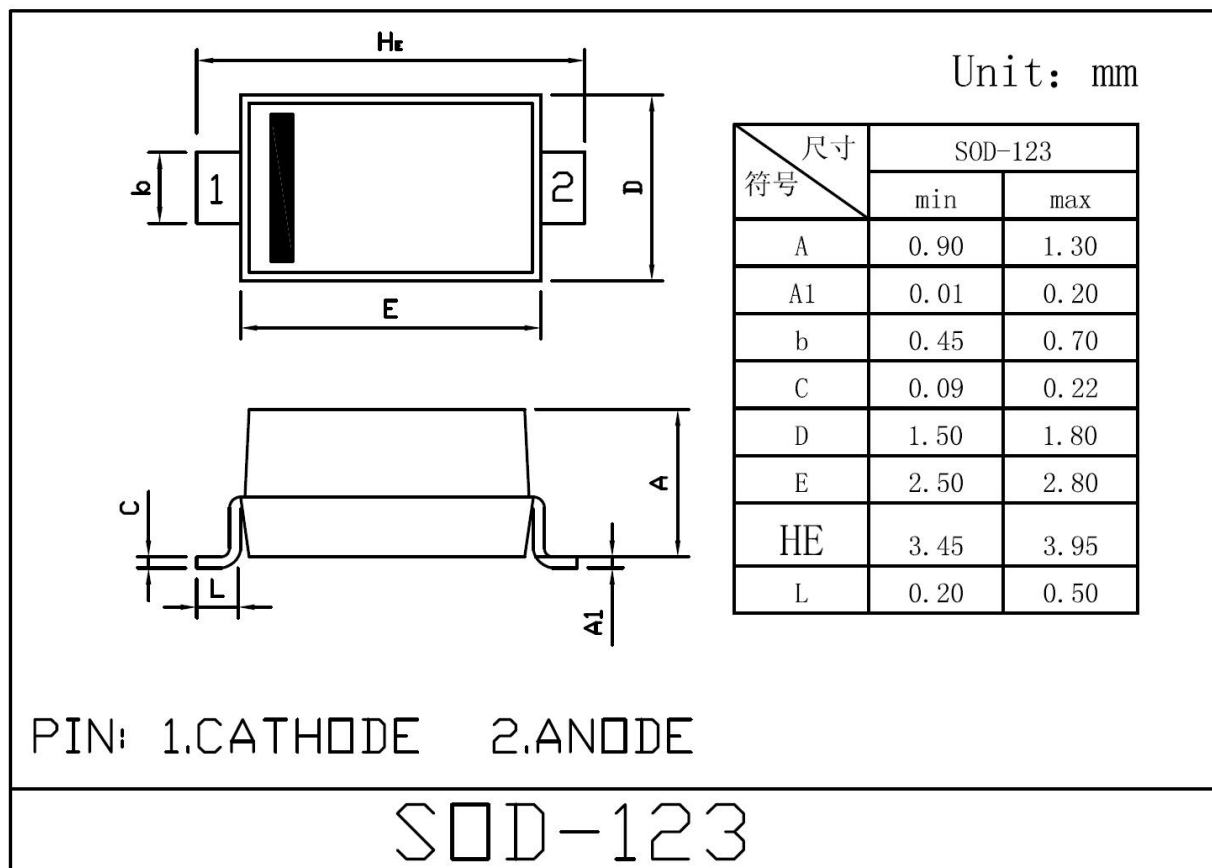


电参数曲线图 / Electrical Characteristic Curve





外形尺寸图 / Package Dimensions



印章说明 / Marking Instructions



说明：

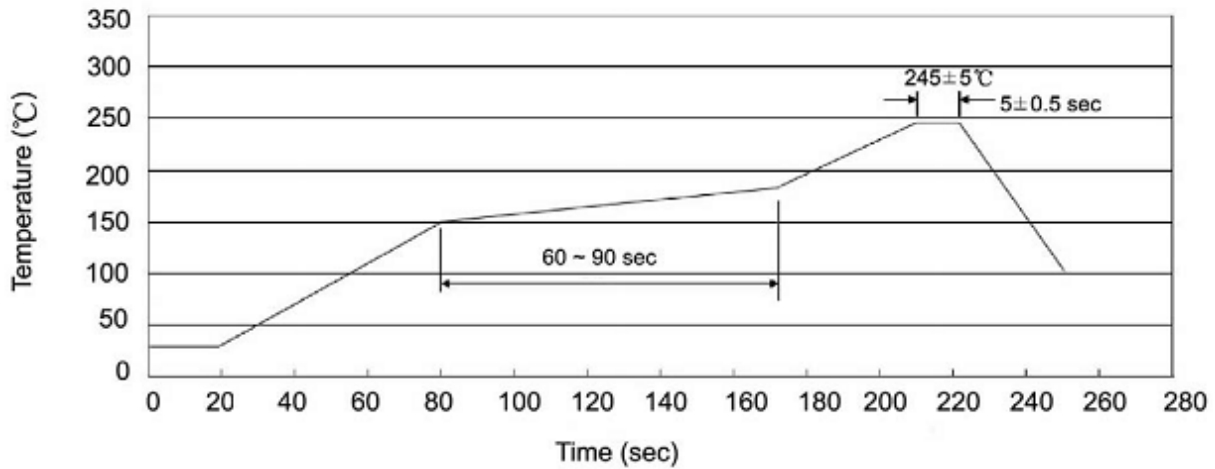
H： 为公司代码

SE： 为型号代码

Note:

H: Company Code.

SE: 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:105~180°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