

描述 / Descriptions

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

特征 / Features

开关速度快。无卤产品。
Fast switching diodes. HF Product.

用途 / Applications

用于小信号处理。
Small signal diode.

内部等效电路 / Equivalent Circuit



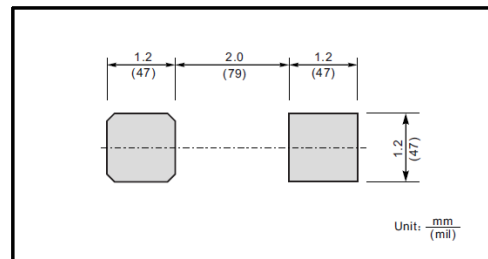
引脚排列 / Pinning



PIN1:Cathode

PIN2:Anode

The recommended mounting pad size



印章代码 / Marking

Marking	T4
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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
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Maximum RMS voltage	V_{RMS}	75	V
Continuous Forward Current	I_F	300	mA
Non-repetitive Peak Forward Surge Current at 1ms	I_{FSM}	4	A
Total Power Dissipation	P_{tot}	400	mW
Typical Thermal Resistance ⁽¹⁾	$R_{\theta JA}$	450	°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	°C

(1) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

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

参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Maximum Forward Voltage	V_F	$I_F=1\text{ mA}$			0.715	V
		$I_F=10\text{ mA}$			0.855	
		$I_F=50\text{ mA}$			1.00	
		$I_F=150\text{ mA}$			1.25	
		$I_F=300\text{ mA}$			1.5	
Peak Reverse Current	I_R	$V_R=20\text{V}$ $T_j=25^\circ\text{C}$			0.025	μA
		$V_R=75\text{V}$ $T_j=25^\circ\text{C}$			1	
		$V_R=25\text{V}$ $T_j=150^\circ\text{C}$			30	
		$V_R=75\text{V}$ $T_j=150^\circ\text{C}$			50	
Junction Capacitance	C_j	$V_R=0$ $f=1.0\text{MHz}$		5		pF
Maximum Reverse Recovery Time	t_{rr}	$I_F=10\text{mA}$ $I_{rr}=0.1 \times I_R$ $I_R=10\text{mA}$ $R_L=100\Omega$		8		ns

电参数曲线图 / Electrical Characteristic Curve

Fig.1 Forward Current Derating Curve

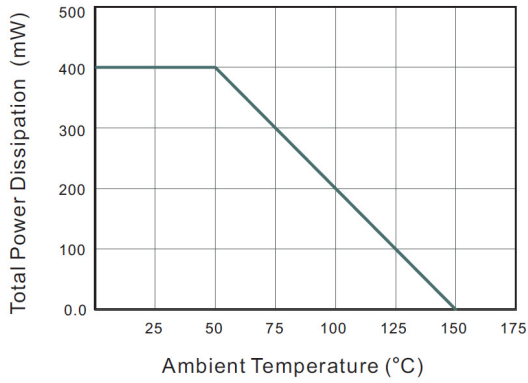


Fig.2 Typical Reverse Characteristics

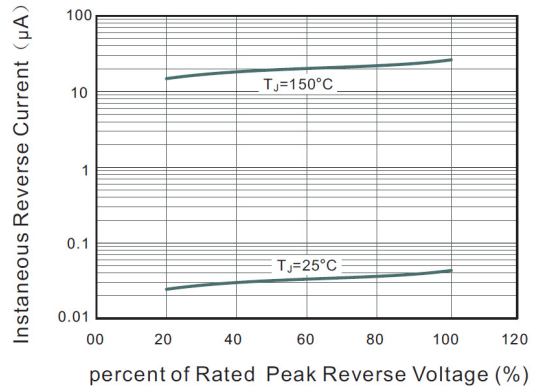


Fig.3 Typical Instantaneous Forward Characteristics

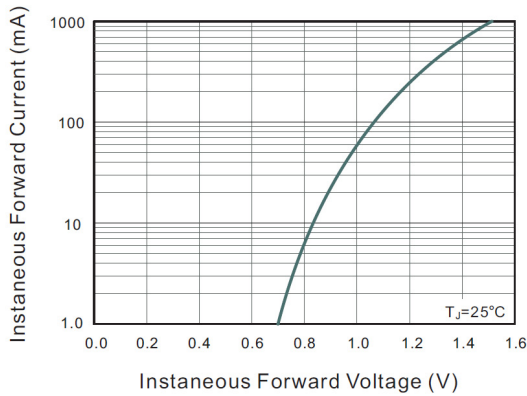
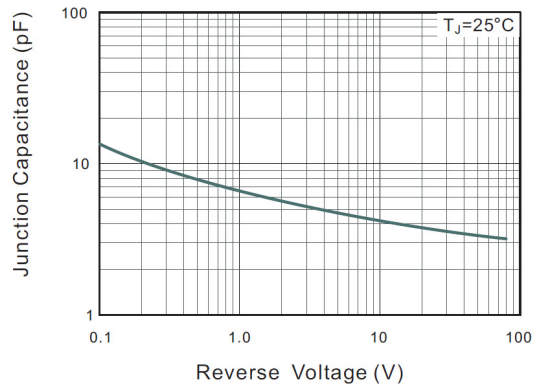
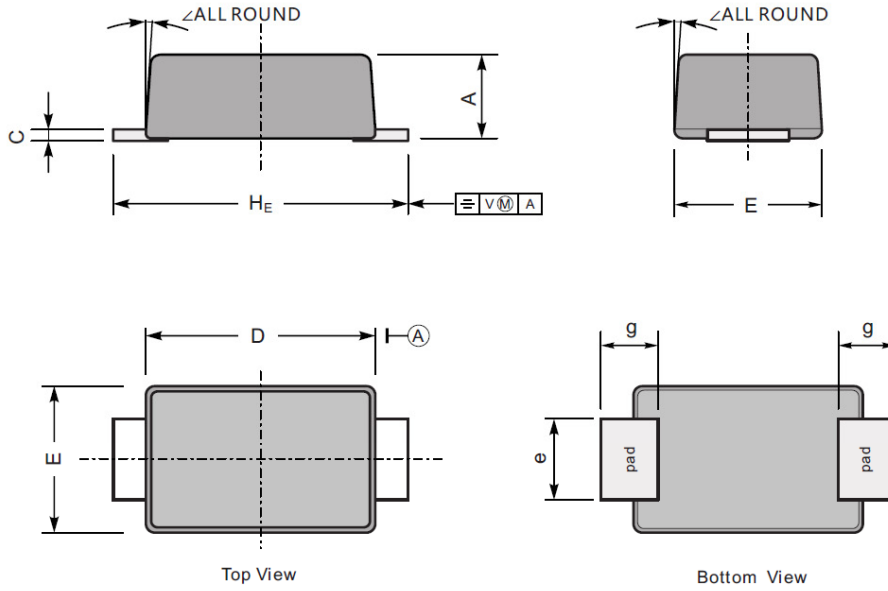


Fig.4 Typical Junction Capacitance



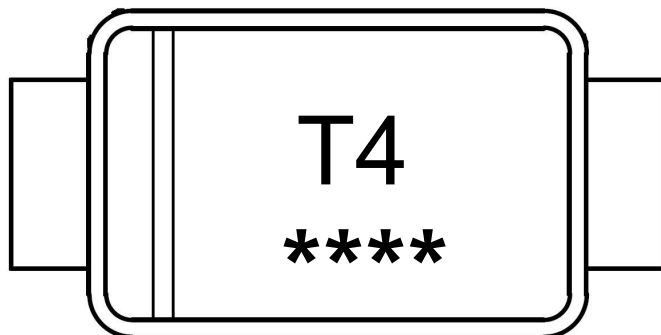
外形尺寸图 / Package Dimensions

SOD-123FL



UNIT		A	C	D	E	e	g	H_E	\angle
mm	max	1.1	0.20	2.9	1.9	1.1	0.9	3.8	7°
	min	0.9	0.12	2.6	1.7	0.8	0.7	3.5	
mil	max	43	7.9	114	75	43	35	150	
	min	35	4.7	102	67	31	28	138	

印章说明 / Marking Instructions



说明：

T4：为型号代码

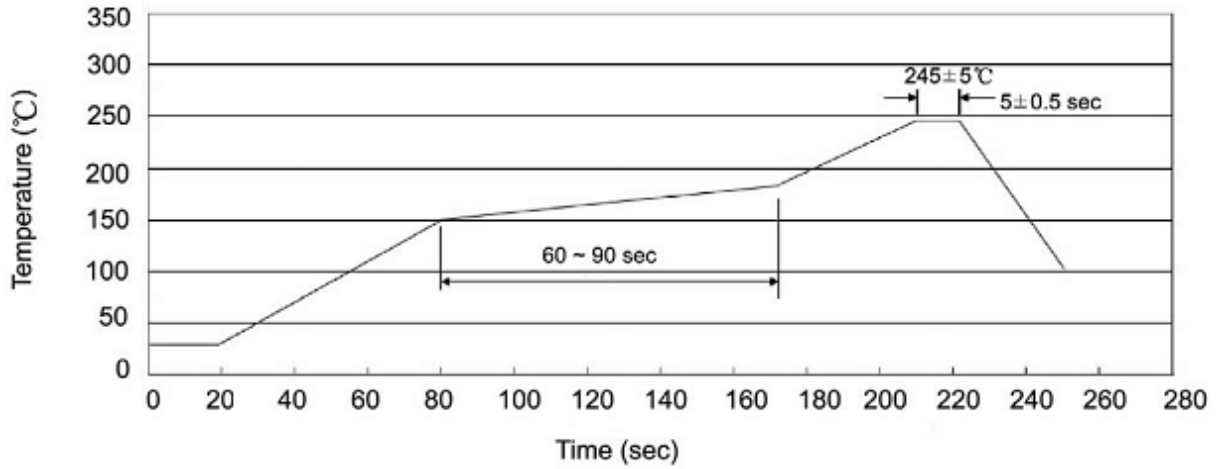
****：为生产批号追溯码，第1个*为年月代码，后面3个*为当月小批号代码

Note:

T4：Product Type Code

****：Lot No. Code，The 1st "*" means:YM Code，The last 3 "*" means:little Lot
No Code

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-123FL	3000	8	24000	5	120000	7" ×11	185X180X105	390X385X205

使用说明 / Notices