

描述 / Descriptions

表面贴装整流二极管，反向电压：50V~1000V，正向电流：1.0A，薄型 SOD-123FL 封装。

Surface Mount General Purpose Silicon Rectifiers, Reverse Voltage: 50 to 1000V, Forward Current: 1.0A, SOD-123FL thin package.

特征 / Features

玻璃钝化芯片,适用于自动放置，铅符合欧盟 RoHS 指令 2011/65/EU，适用于表面贴装。无卤产品。

Glass Passivated Chip Junction, Ideal for automated placement, Lead free in comply with EU RoHS 2011/65/EU directives, For surface mounted applications. Halogen free product.

用途 / Applications

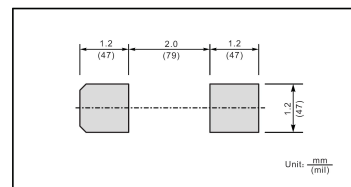
一般用途。

General purpose.

内部等效电路 / Equivalent Circuit**引脚排列 / Pinning**

PIN	DESCRIPTION
1	Cathode
2	Anode

The recommended mounting pad size

**印章代码 / Marking**

见印章说明。See Marking Instructions.

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

参数 Parameter	符号 Symbol	数值 Rating							单位 Unit
		1N4001W	1N4002W	1N4003W	1N4004W	1N4005W	1N4006W	1N4007W	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at $T_a=65^{\circ}\text{C}$	$I_F (AV)$	1.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	30							A
Typical Junction Capacitance ¹⁾	C_j	8							pF
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	90							$^{\circ}\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	-55~+150							$^{\circ}\text{C}$

Note:

1) Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{rr}=0.25\text{A}$.

2) P.C.B. mounted with 0.2X0.2" (5X5mm) 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	数值 Rating							单位 Unit
			1N4001W	1N4002W	1N4003W	1N4004W	1N4005W	1N4006W	1N4007W	
Maximum Instantaneous Forward Voltage	V_F	$I_F=1.0\text{A}$	1.1							V
Maximum DC Reverse Current at Maximum DC Blocking Voltage	I_R	$T_a=25^{\circ}\text{C}$	5.0							μA
		$T_a=125^{\circ}\text{C}$	50							μA

电参数曲线图 / Electrical Characteristic Curve

Fig.1 Forward Current Derating Curve

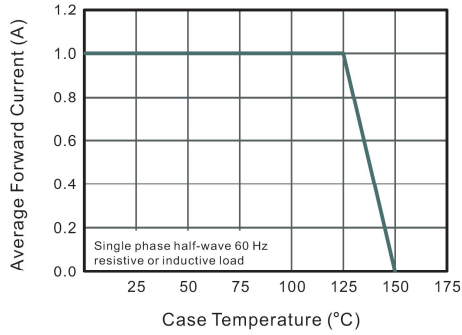


Fig.2 Typical Instantaneous Reverse Characteristics

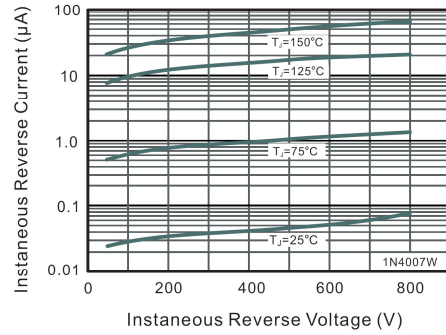


Fig.3 Typical Forward Characteristic

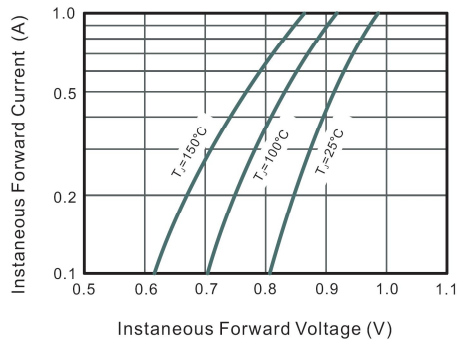


Fig.4 Typical Junction Capacitance

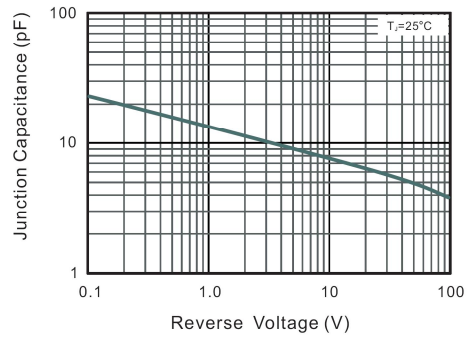
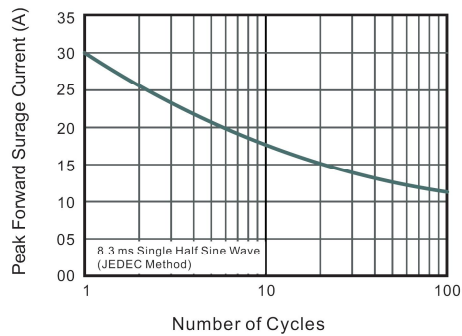
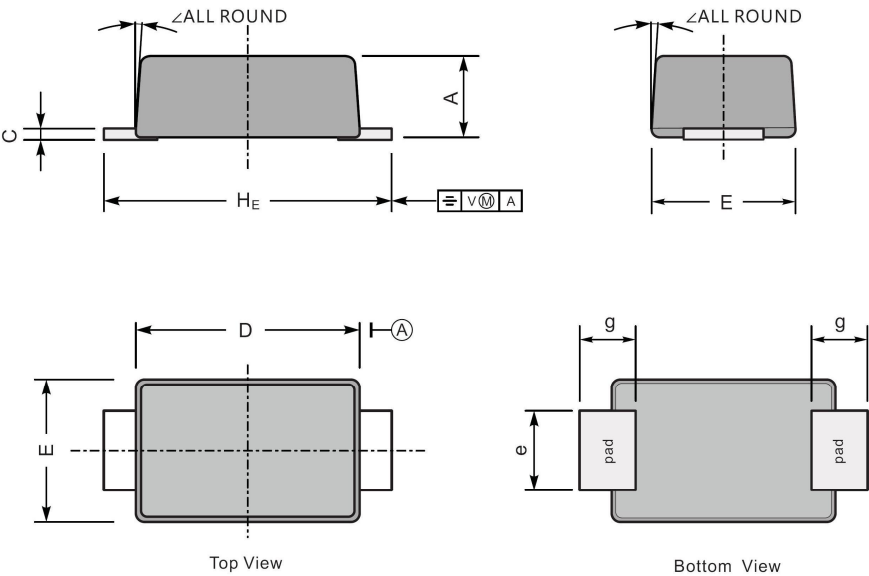


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



外形尺寸图 / Package Dimensions

SOD-123FL



UNIT		A	C	D	E	e	g	H _E	∠
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	

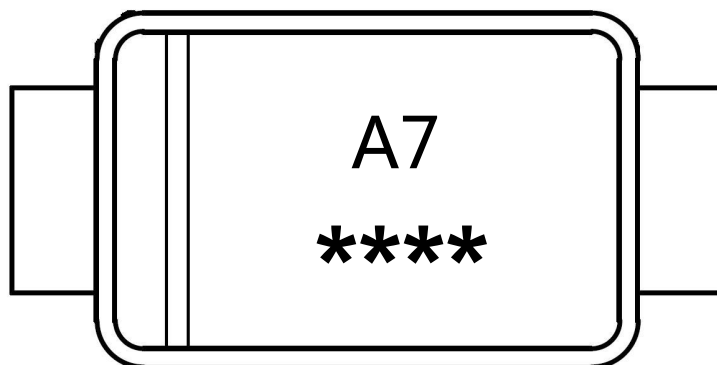
印章说明 / Marking Instructions

Marking

Type number	Marking code
1N4001W	A1
1N4002W	A2
1N4003W	A3
1N4004W	A4
1N4005W	A5
1N4006W	A6
1N4007W	A7



印章说明 / Marking Instructions



说明：

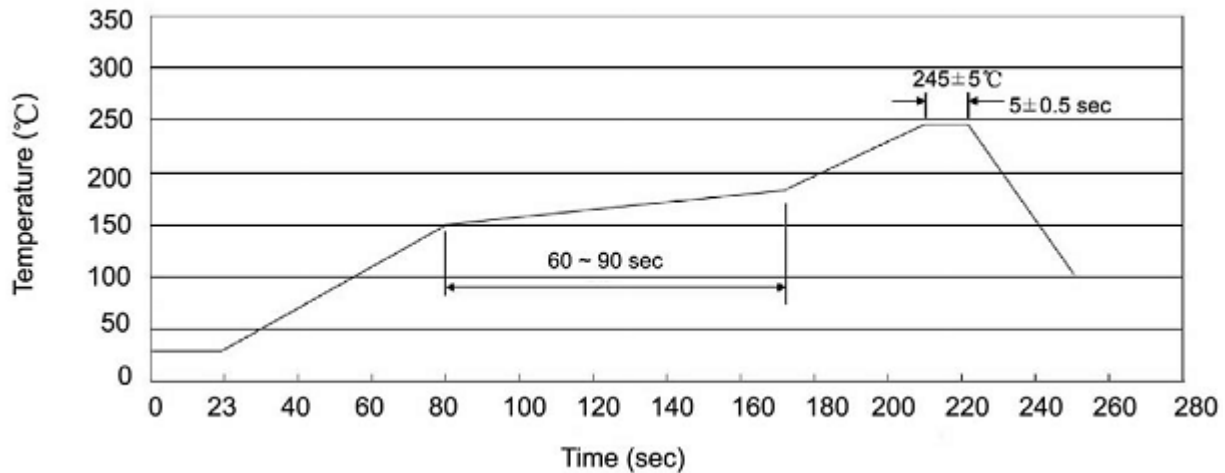
A7： 为型号代码

****： 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:

A7： 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 $25 \sim 150^{\circ}\text{C}$ ，时间 $60 \sim 90\text{sec}$;
- 2、峰值温度 $245 \pm 5^{\circ}\text{C}$ ，时间持续为 $5 \pm 0.5\text{sec}$;
- 3、焊接制程冷却速度为 $2 \sim 10^{\circ}\text{C}/\text{sec}$.

Note:

- 1.Preheating: $25 \sim 150^{\circ}\text{C}$, Time: $60 \sim 90\text{sec}$.
- 2.Peak Temp.: $245 \pm 5^{\circ}\text{C}$, Duration: $5 \pm 0.5\text{sec}$.
3. Cooling Speed: $2 \sim 10^{\circ}\text{C}/\text{sec}$.

耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions
温度： $260 \pm 5^{\circ}\text{C}$ 时间： 10 ± 1 sec.Temp.: $260 \pm 5^{\circ}\text{C}$ 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