

1N4001W~1N4007W

Rev.C Feb.-2015

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

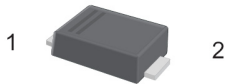
一般用途.

General purpose.

内部等效电路 / Equivalent Circuit

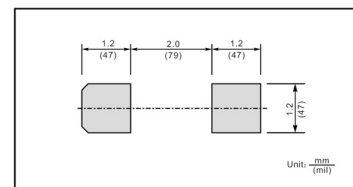


引脚排列 / Pinning



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	9.0							pF
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	120							$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	T_j, T_{stg}	-55~+150							$^\circ\text{C}$

Note:

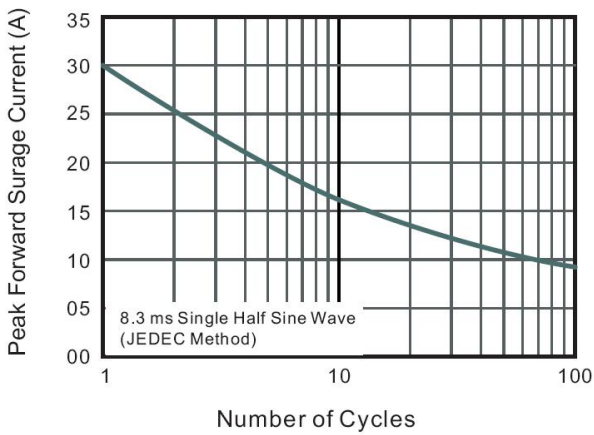
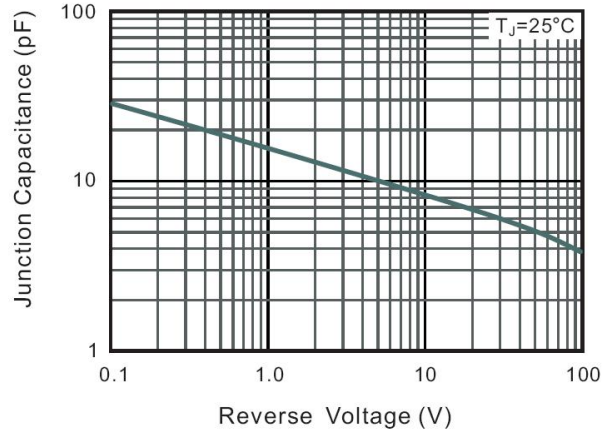
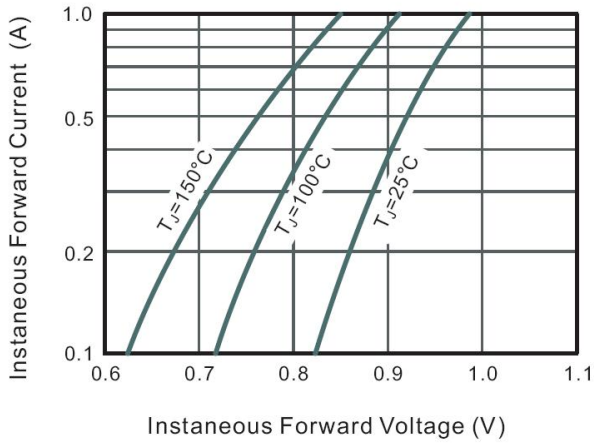
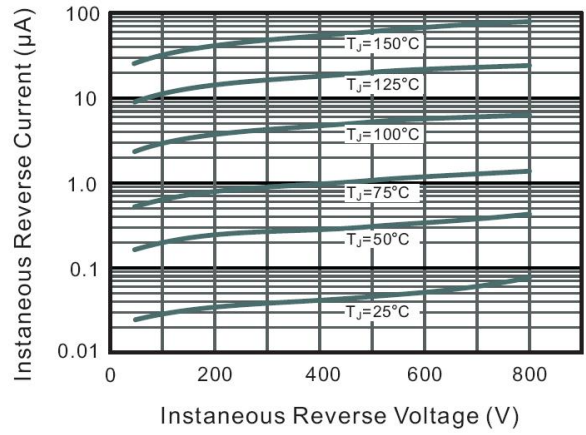
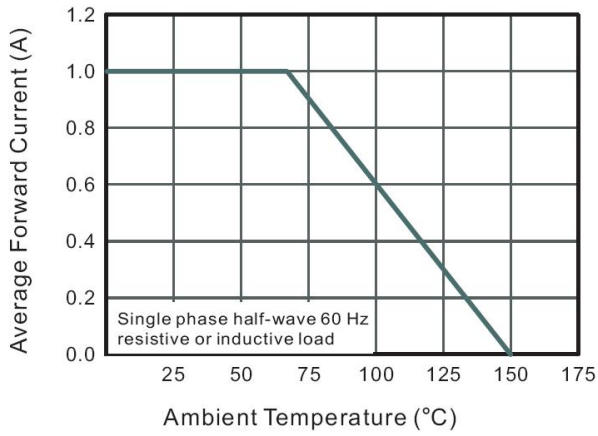
1) Measured with $I_F=0.5\text{A}, I_R=1\text{A}, I_{rr}=0.25\text{A}$.

2) P.C.B. mounted with 0.2X0.2" (5X5mm) copper pad areas.

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

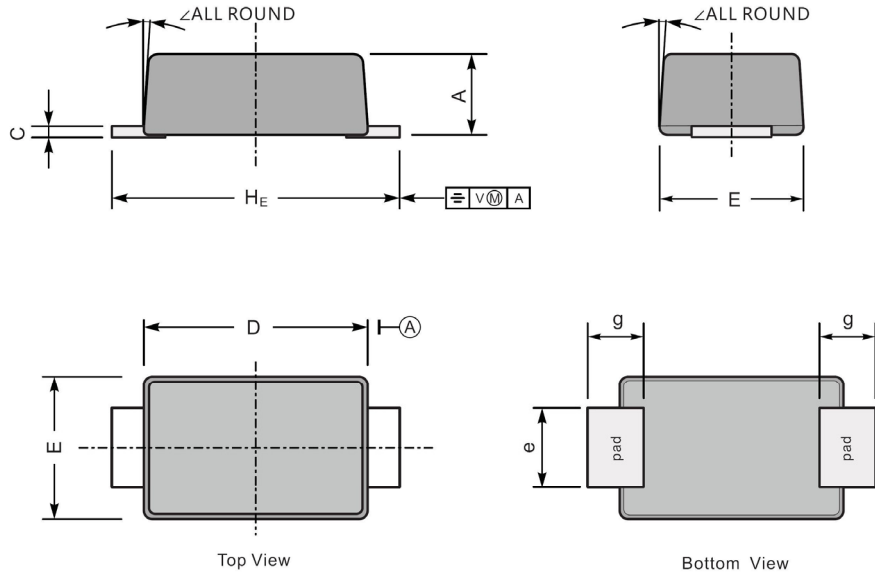
参数 Parameter	符号 Symbol	测试条件 Test Conditions	数值 Rating						单位 Unit
			1N4001W	1N4002W	1N4003W	1N4004W	1N4005W	1N4006W	
Maximum Instantaneous Forward Voltage	V_F	$I_F=1.0\text{A}$	1.1						V
Maximum DC Reverse Current at Maximum DC Blocking Voltage	I_R	$T_a=25^\circ\text{C}$	5.0						μA
		$T_a=125^\circ\text{C}$	50						μA

电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions

SOD-123FL

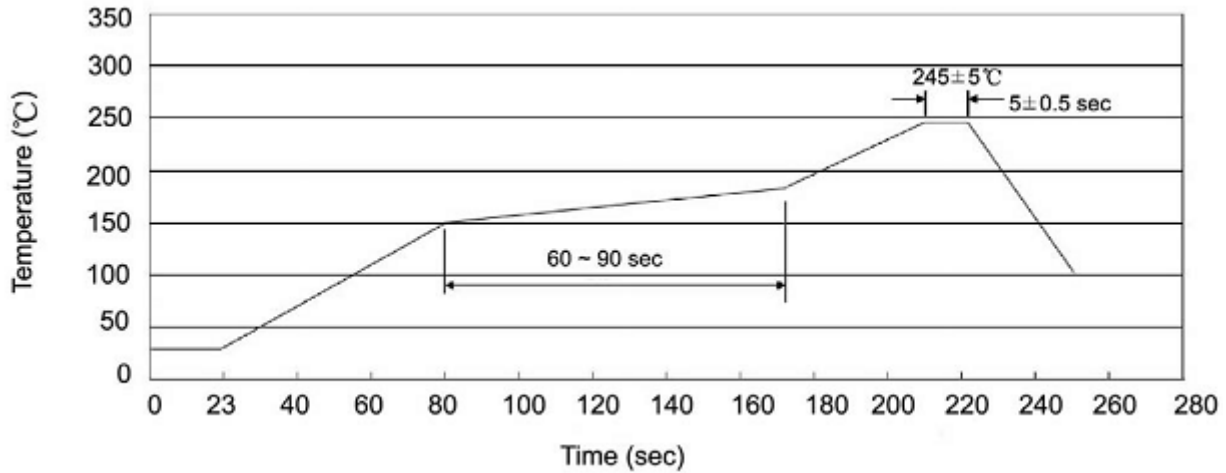


UNIT		A	C	D	E	e	g	H_E	\angle
mm	max	1.1	0.20	2.9	1.9	1.1	0.9	3.8	7°
	min	0.9	0.12	2.6	1.7	0.8	0.7	3.5	
mil	max	43	7.9	114	75	43	35	150	
	min	35	4.7	102	67	31	28	138	

Marking

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

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 ~ 150°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:25~150°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	550X210X220

使用说明 / Notices