

# 1N4001W~1N4007W

Rev.F May.-2024

## 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, HF Product.

## 用途 / Applications

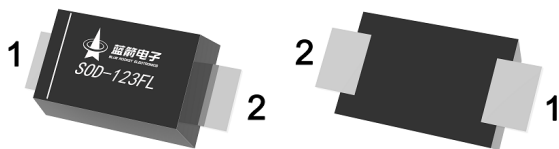
一般用途。

General purpose.

## 内部等效电路 / Equivalent Circuit

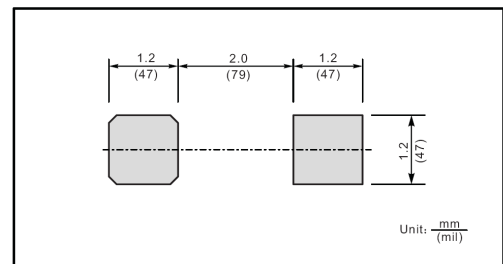


## 引脚排列 / Pinning



PIN	DESCRIPTION
1	Cathode
2	Anode

The recommended mounting pad size



## 印章代码 / Marking

见印章说明。

See Marking Instructions.

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DATA SHEET

## 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 <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at T <sub>a</sub> = 65°C	I <sub>F(AV)</sub>	1.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	30							A
Typical Junction Capacitance <sup>1)</sup>	C <sub>j</sub>	8							pF
Typical Thermal Resistance <sup>2)</sup>	R <sub>θJA</sub>	90							°C/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>stg</sub>	-55~+150							°C

Note:

1) Measured with I<sub>F</sub>=0.5A, I<sub>R</sub>=1A, I<sub>rr</sub>=0.25A.

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 <sub>F</sub>	I <sub>F</sub> =1.0A	1.1						V
Maximum DC Reverse Current at Maximum DC Blocking Voltage	I <sub>R</sub>	T <sub>a</sub> =25°C	5.0						μA
		T <sub>a</sub> =125°C	50						μA

电参数曲线图 / Electrical Characteristic Curve

Fig.1 Forward Current Derating Curve

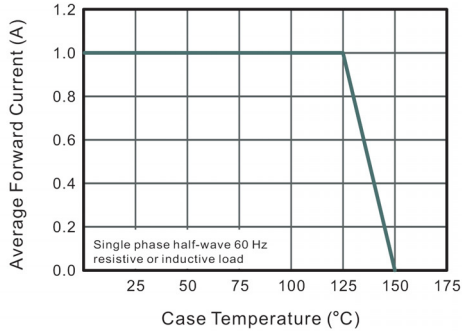


Fig.2 Typical Instantaneous Reverse Characteristics

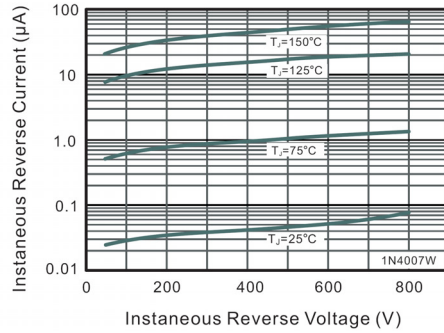


Fig.3 Typical Forward Characteristic

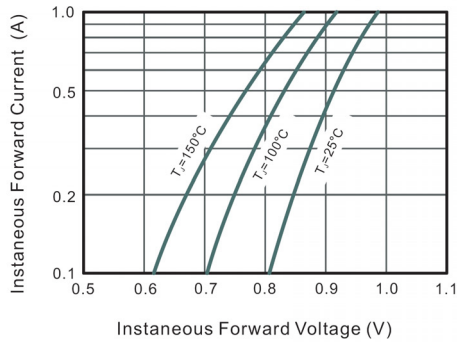


Fig.4 Typical Junction Capacitance

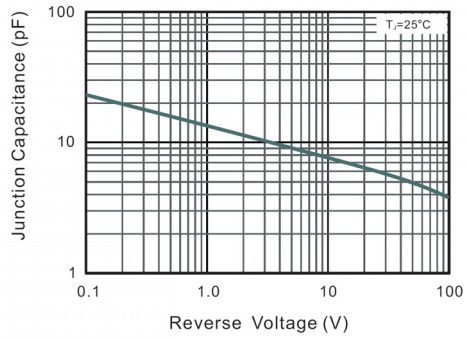
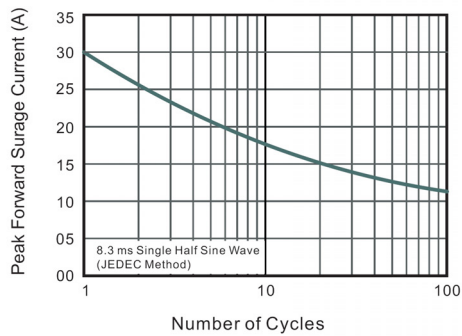
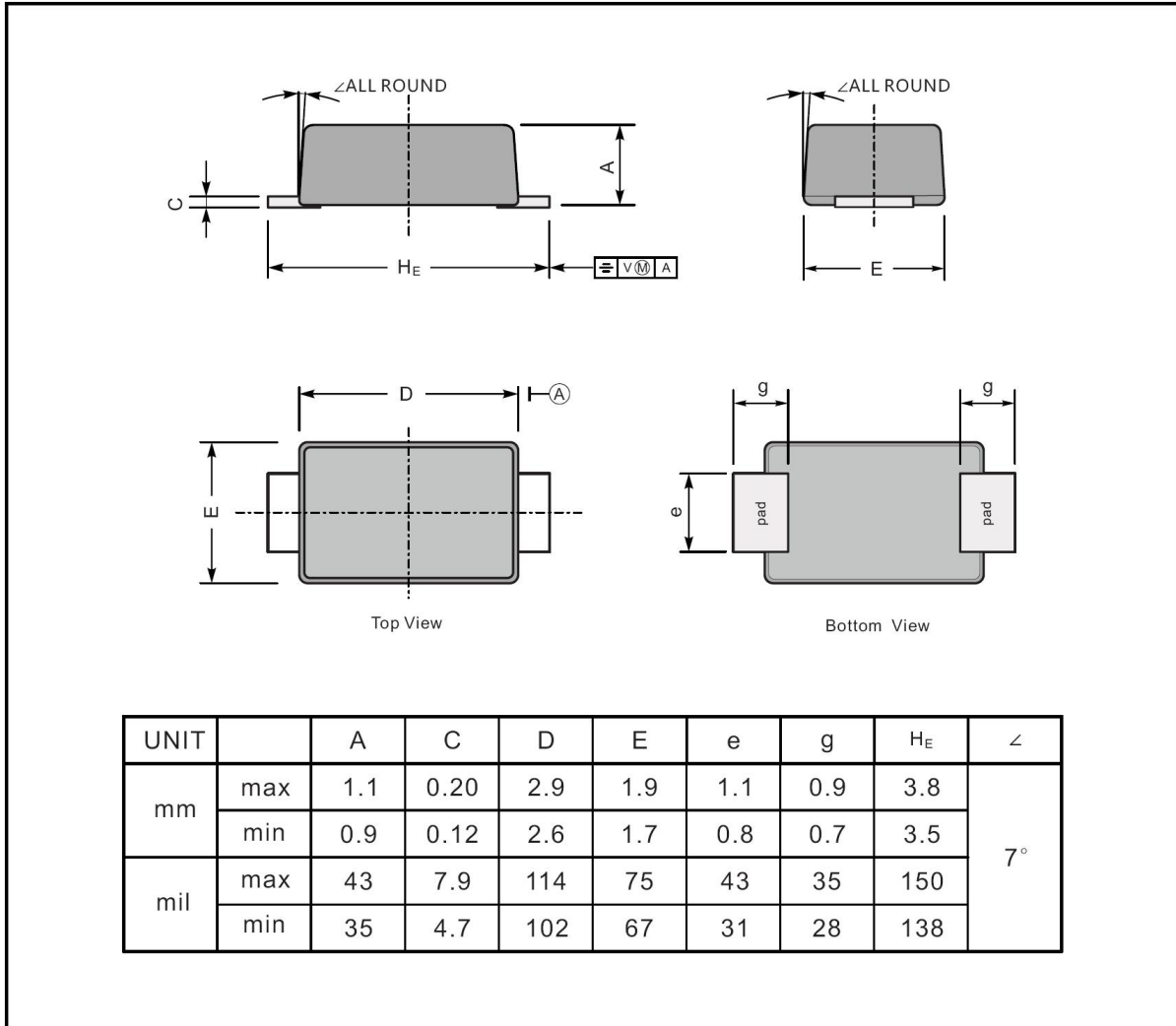


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

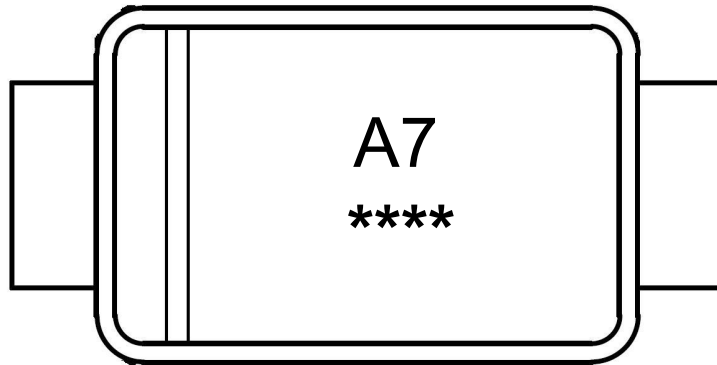


外形尺寸图 / Package Dimensions

SOD-123FL



印章说明 / Marking Instructions



说明：

A7： 为型号代码

\*\*\*\*： 为生产批号代码，随生产批号变化

Note:

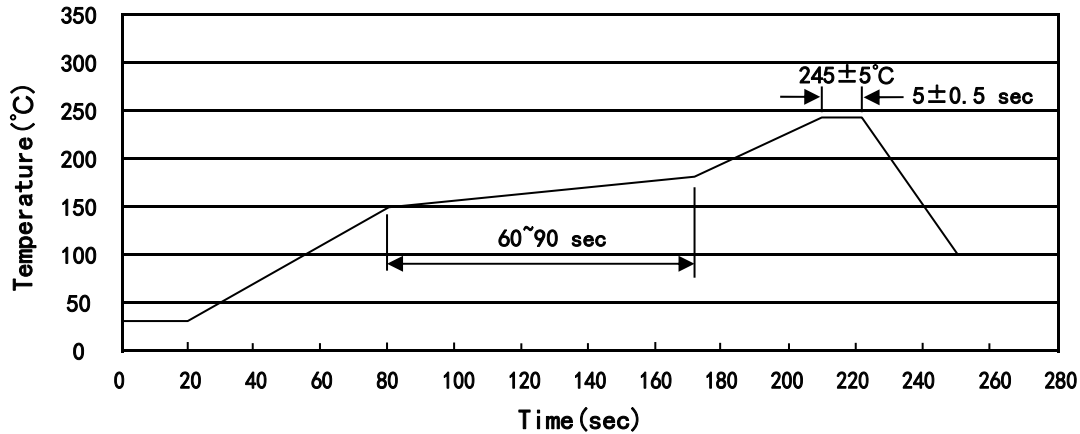
A7： Product Type Code

\*\*\*\*： Lot No. Code, code change with Lot No

**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 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 <sup>3</sup> )		
	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	3,000	8	24,000	6	144,000	7" ×8	185×180×105	390×385×205

**使用说明 / Notices**