

# FR101W~FR107W

Rev.E Jan.-2018

## 描述 / Descriptions

快恢复二极管, 反向电压: 50V~1000V, 正向电流: 1.0A, 薄型 SOD-123FL 封装。

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

## 特征 / Features

玻璃钝化芯片, 反向恢复时间快, 无铅符合欧盟 RoHS 指令 2011/65/EU, 适用于表面贴装。无卤产品。

Glass Passivated Chip Junction, Fast reverse recovery time, Lead free in comply with EU RoHS 2011/65/EU directives, For surface mounted applications. Halogen free product.

## 用途 / Applications

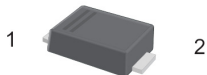
一般用途。

General purpose.

## 内部等效电路 / Equivalent Circuit

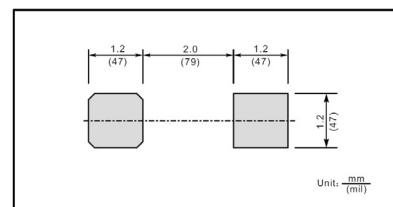


## 引脚排列 / Pinning



PIN	DESCRIPTION
1	Cathode
2	Anode

The recommended mounting pad size



## 印章代码 / Marking

型号 Type number	FR101W	FR102E	FR103W	FR104W	FR105W	FR106W	FR107W
印章 Marking code	F2				F5	F7	

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

参数 Parameter	符号 Symbol	数值 Rating							单位 Unit
		FR101W	FR102W	FR103W	FR104W	FR105W	FR106W	FR107W	
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 at $V_R=4\text{V}, f=1\text{MHz}$	$C_j$	15							pF
Typical Thermal Resistance <sup>1)</sup>	$R_{\theta JA}$	120							$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55~+150							$^\circ\text{C}$

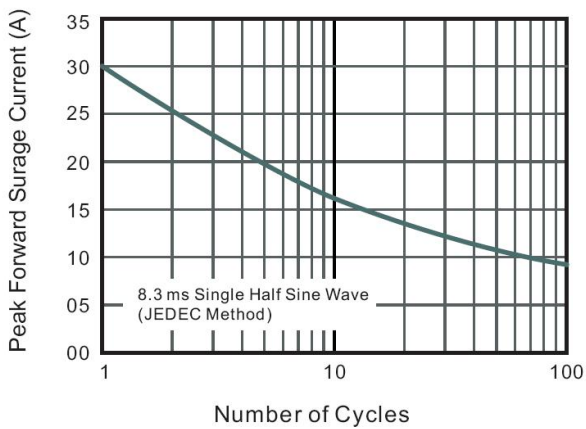
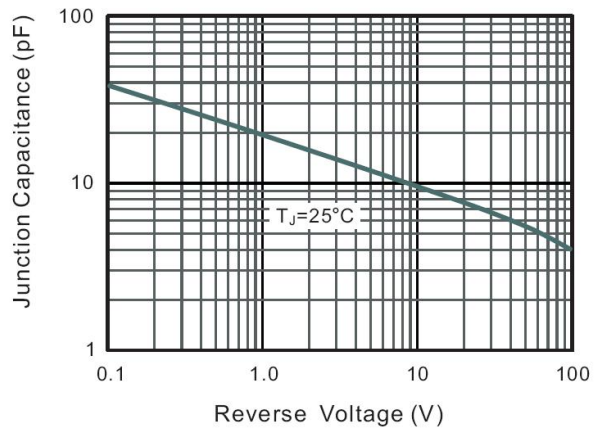
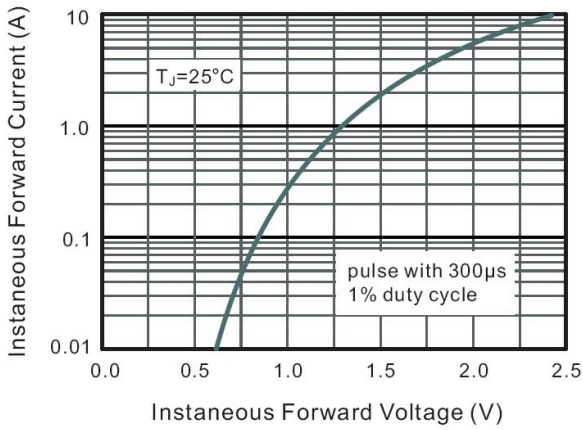
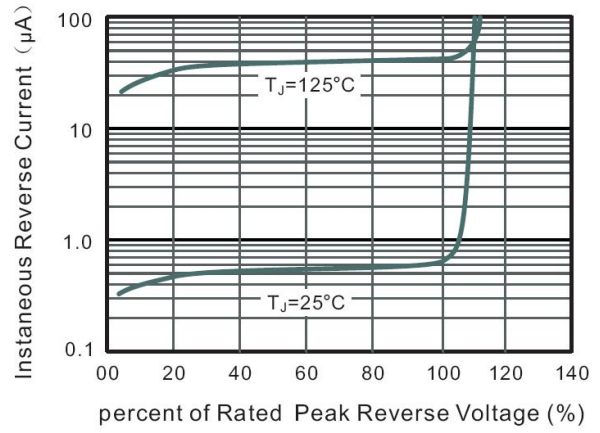
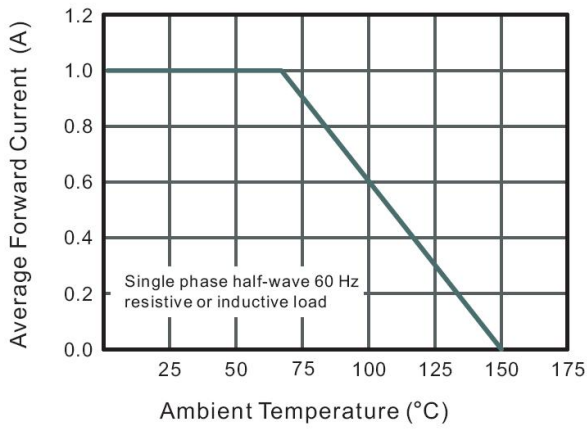
Note:

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

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

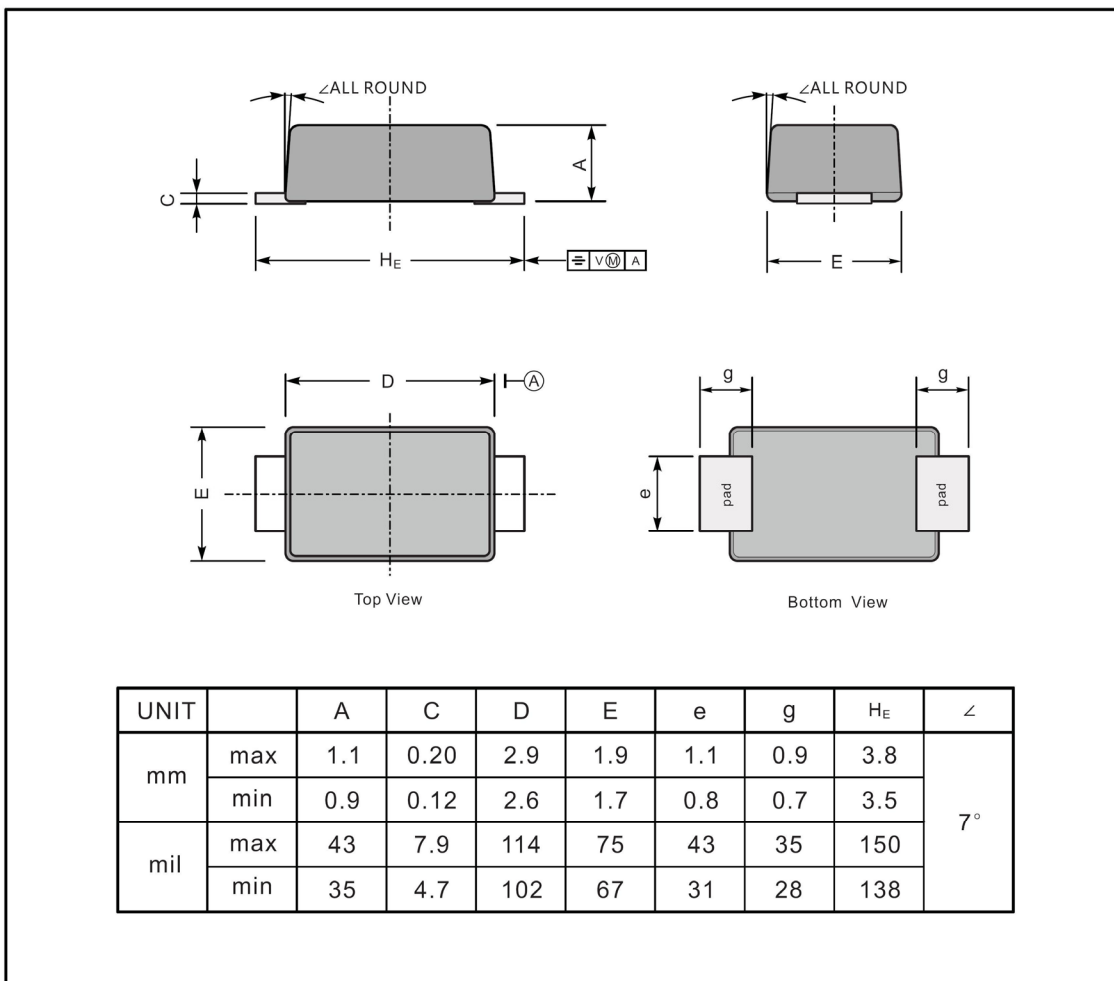
参数 Parameter	符号 Symbol	测试条件 Test Conditions	数值 Rating						单位 Unit
			FR101W	FR102W	FR103W	FR104W	FR105W	FR106W	
Maximum Instantaneous Forward Voltage	$V_F$	$I_F=1.0\text{A}$	1.3						V
Maximum DC Reverse Current at Maximum DC Blocking Voltage	$I_R$	$T_a=25^\circ\text{C}$	5.0						$\mu\text{A}$
		$T_a=125^\circ\text{C}$	50						$\mu\text{A}$
Maximum Reverse Recovery Time	$t_{rr}$	$I_F=0.5\text{A}$ $I_R=1\text{A}$ $I_{rr}=0.25\text{A}$	150			250	500		ns

电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions

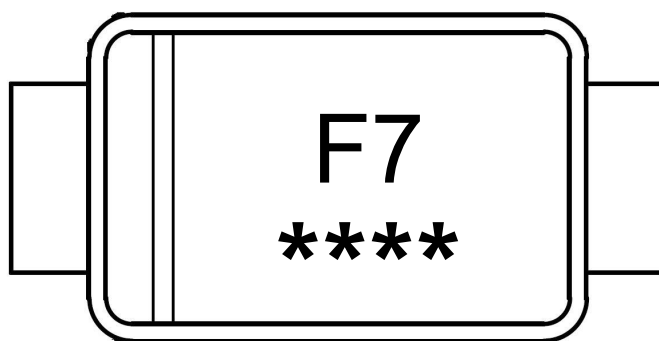
SOD-123FL



## Marking

Type number	Marking code
FR101W	F2
FR102W	
FR103W	
FR104W	
FR105W	F5
FR106W	F7
FR107W	

印章说明 / Marking Instructions



说明：

F7： 为型号代码

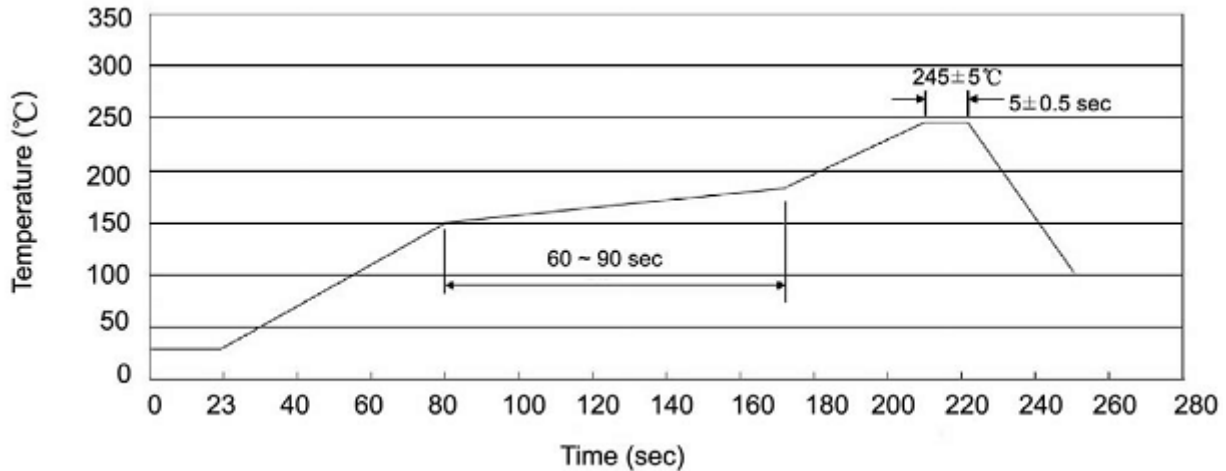
\*\*\*\*： 为生产批号追溯码，第1个\*为年月代码，后面3个\*为当月小批号代码

Note:

F7： 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 ~ 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 <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	3000	8	24000	5	120000	7" ×11	185X180X105	390X385X205

**使用说明 / Notices**

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