

# DS12W~DS120W

Rev.D May.-2017

## 描述 / Descriptions

表面贴装肖特基整流二极管，反向电压：20~200V，正向电流：1.0A，薄型 SOD-123FL 封装。

Surface Mount Schottky Barrier Rectifier, Reverse Voltage: 20 to 200 V, Forward Current: 1.0A, SOD-123FL thin package.

## 特征 / Features

低功率损失，效率高，浪涌电流大，应用于低压、高频转换和极性保护，适用于表面贴装。无卤产品。

Low power loss, high efficiency, High forward surge current capability, For use in low voltage, high frequency inverters, and polarity protection applications, For surface mounted applications. Halogen free product.

## 用途 / Applications

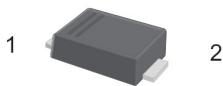
一般用途。

General purpose.

## 内部等效电路 / Equivalent Circuit

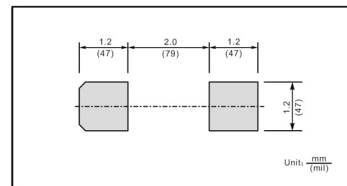


## 引脚排列 / Pinning



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
		DS12W	DS14W	DS16W	DS18W	DS110W	DS112W	DS115W	DS120W	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	40	60	80	100	120	150	200	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	28	42	56	70	84	105	140	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	40	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current	I <sub>F(AV)</sub>	1.0								A
Peak Forward Surge Current,8.3ms Single Half sine-wave Superimposed on Rated Load (JEDEC method)	I <sub>FSM</sub>	40				30				A
Typical Junction Capacitance <sup>1)</sup>	C <sub>i</sub>	110			80					pF
Typical Thermal Resistance <sup>2)</sup>	R <sub>θJA</sub>	115								°C/W
Operating Junction Temperature Range	T <sub>j</sub>	-55~+125								°C
Storage Temperature Range	T <sub>stg</sub>	-55~+150								°C

Note:

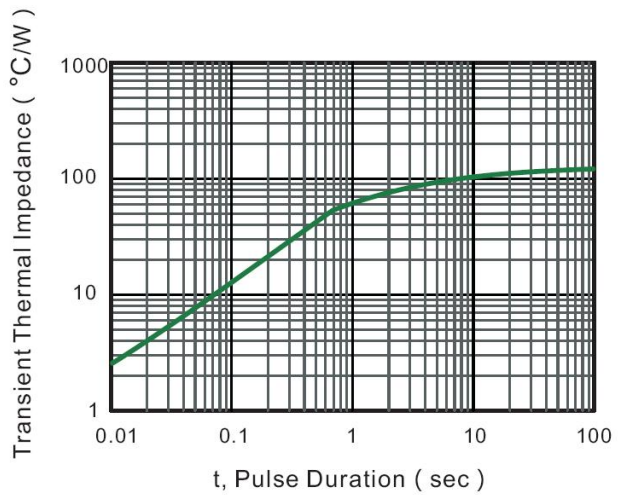
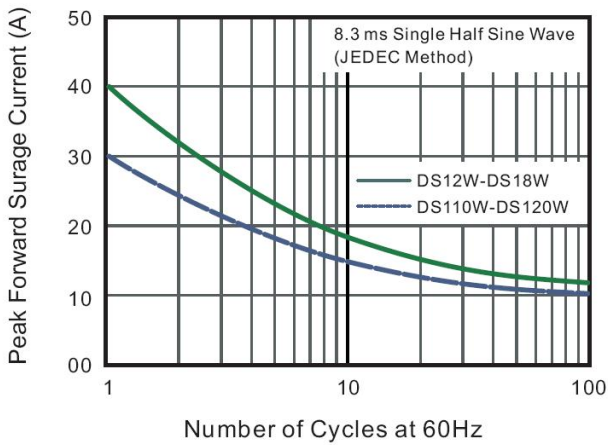
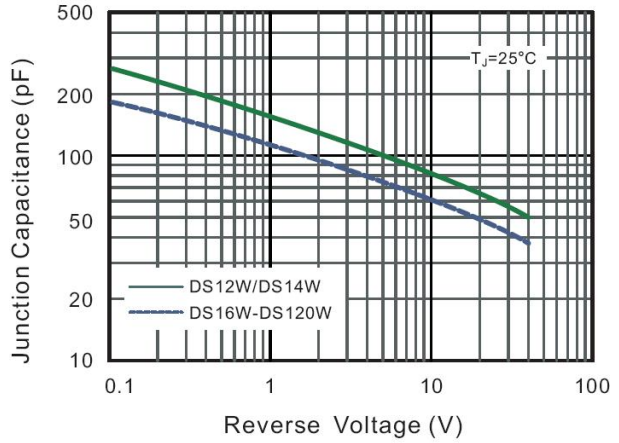
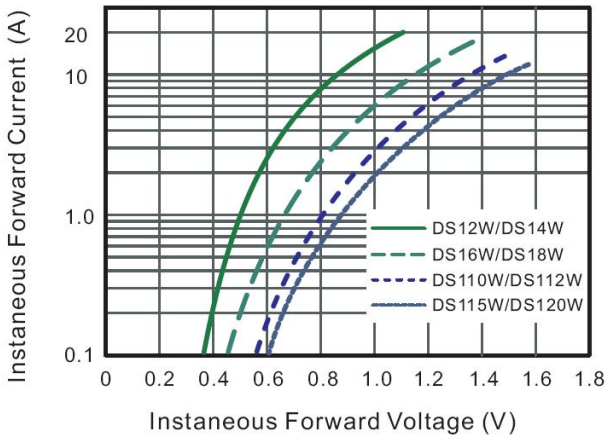
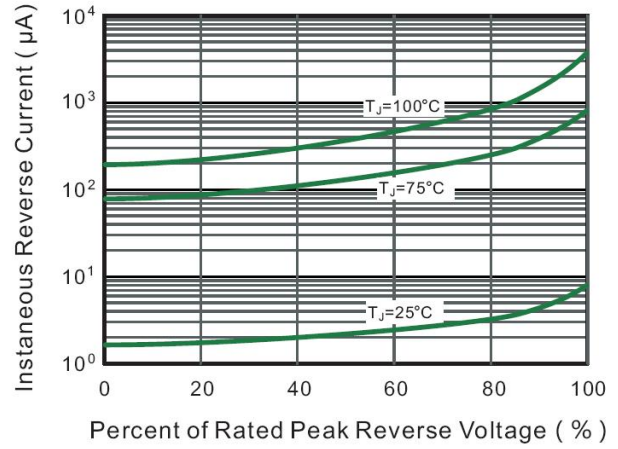
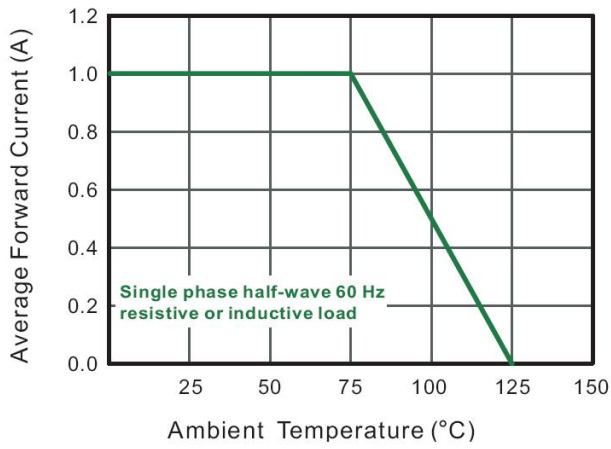
1) Measured at 1MHz and applied reverse voltage of 4 V D.C.

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

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

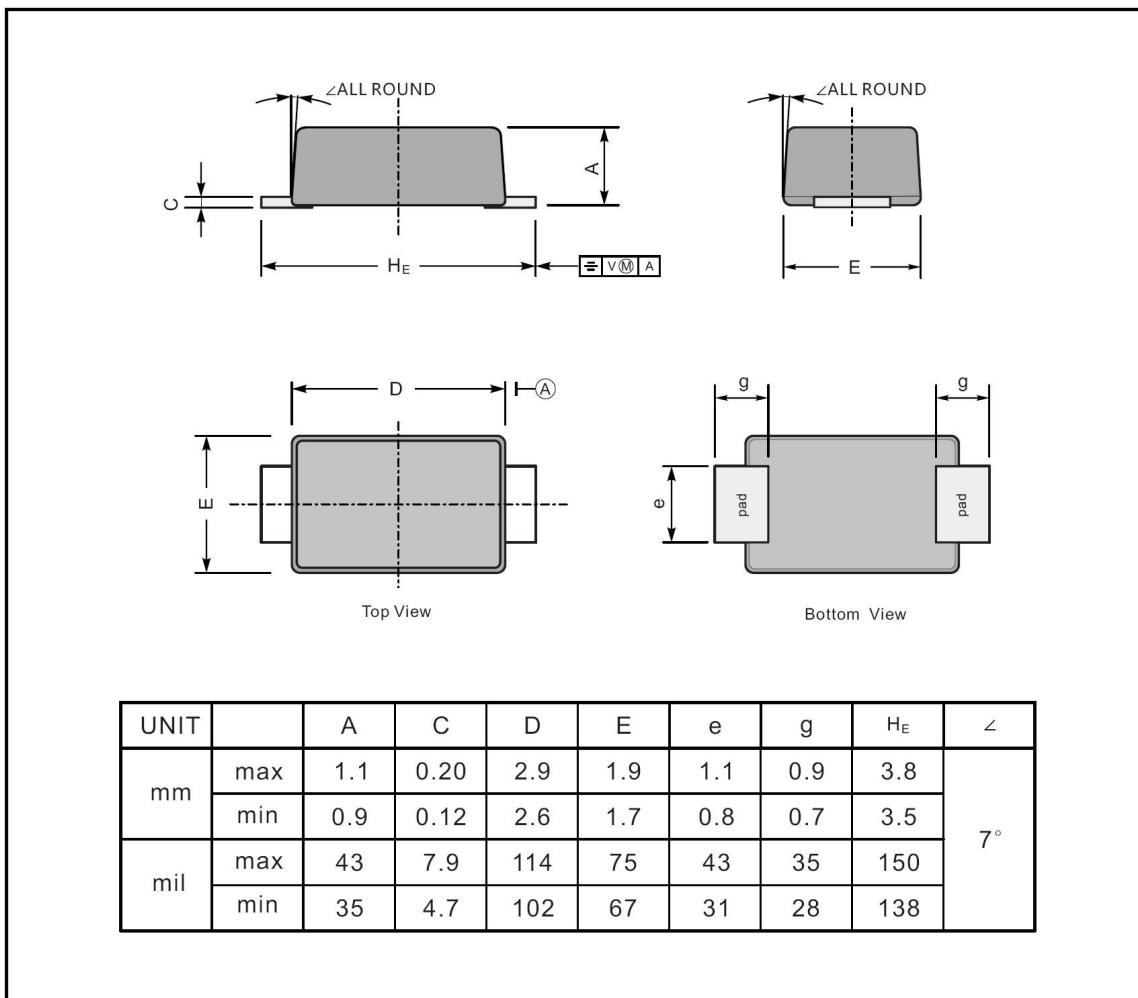
参数 Parameter	符号 Symbol	测试条件 Test Conditions	数值 Rating								单位 Unit
			DS12W	DS14W	DS16W	DS18W	DS110W	DS112W	DS115W	DS120W	
Max Instantaneous Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =1.0A	0.55		0.70		0.85		0.90		V
Maximum DC Reverse Current at Rated DC Reverse Voltage	I <sub>R</sub>	T <sub>a</sub> =25°C	0.3				0.2		0.1		mA
		T <sub>a</sub> =100°C	10				5.0		2.0		

电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions

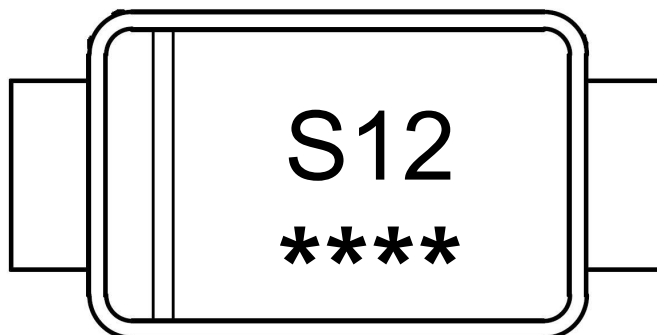
SOD-123FL



## Marking

Type number	Marking code
DS12W	S12
DS14W	S14
DS16W	S16
DS18W	S18
DS110W	S110
DS112W	S112
DS115W	S115
DS120W	S120

印章说明 / Marking Instructions



说明：

S12： 为型号代码

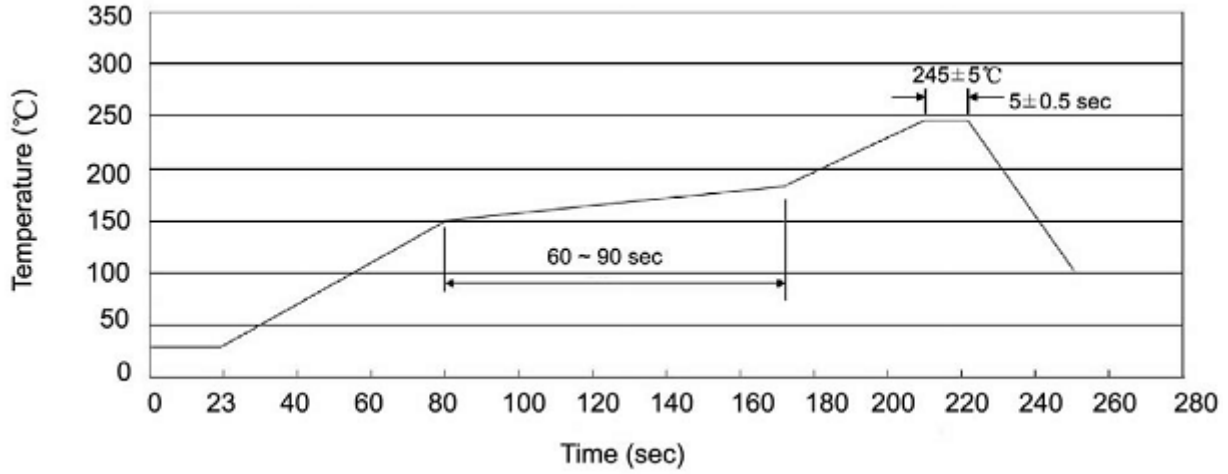
\*\*\*\*： 为生产批号追溯码，第1个\*为年月代码，后面3个\*为当月小批号代码

Note:

S12： 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： $10 \pm 1$  sec.

Temp.: $260 \pm 5^\circ\text{C}$

Time: $10 \pm 1$  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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