

ES1AW~ES1JW

Rev.D May.-2017

描述 / Descriptions

超快恢复二极管，反向电压：50V~600V，正向电流：1.0A，薄型 SOD-123FL 封装。

Surface Mount Superfast Recovery Rectifiers, Reverse Voltage: 50 to 600V, Forward Current: 1.0A, SOD-123FL thin package.

特征 / Features

高效率，超快恢复时间，无铅符合欧盟 RoHS 指令 2011/65/EU，适用于表面贴装。无卤产品。

Superfast recovery times for high efficiency, Lead free in comply with EU RoHS 2011/65/EU directives, For surface mounted applications. Halogen free product.

用途 / Applications

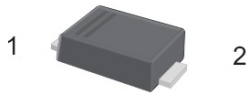
一般用途。

General purpose.

内部等效电路 / Equivalent Circuit

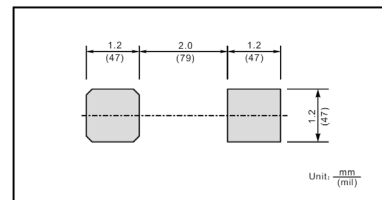


引脚排列 / Pinning



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
		ES1AW	ES1BW	ES1CW	ES1DW	ES1EW	ES1GW	ES1JW	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	600	V
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current at TL = 100°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 VR=4V, f=1MHz	C_j	10							pF
Typical Thermal Resistance ¹⁾	$R_{\theta JA}$	120							°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55~+150							°C

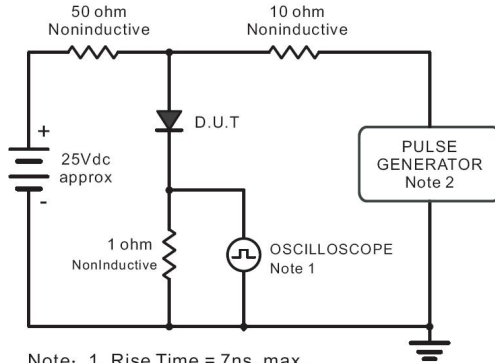
Note:

1) P.C.B. mounted with 0.2 X 0.2" (5 X 5 mm) copper pad areas.

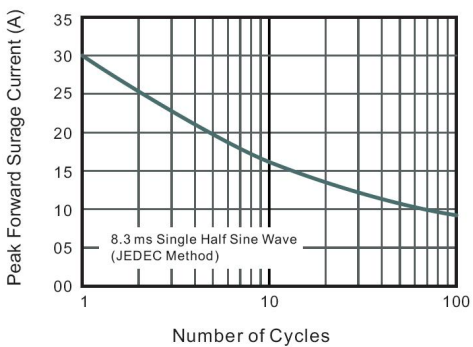
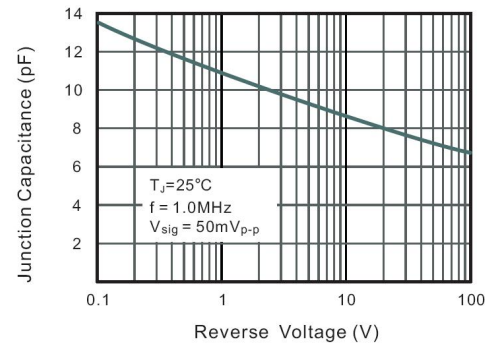
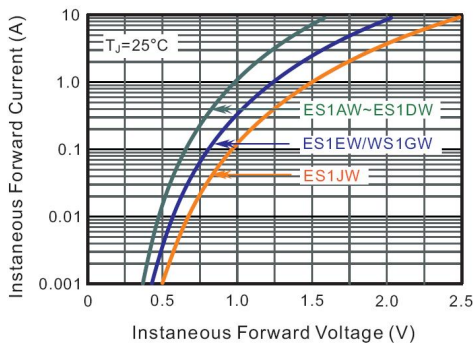
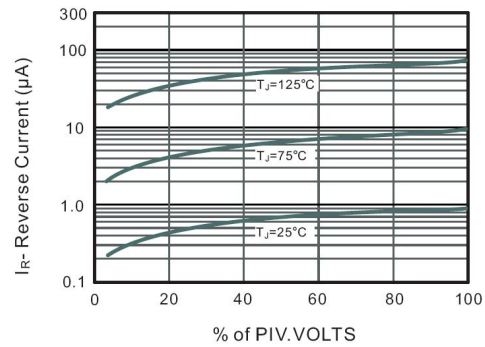
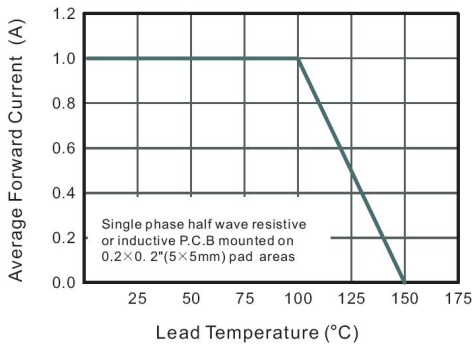
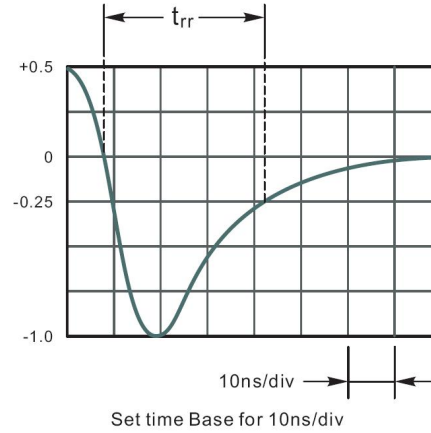
电性能参数 / Electrical Characteristics(Ta=25°C)

参数 Parameter	符号 Symbol	测试条件 Test Conditions	数值 Rating						单位 Unit
			ES1AW	ES1BW	ES1CW	ES1DW	ES1EW	ES1GW	
Maximum Forward Voltage	V_F	$I_F=1.0A$	1.0			1.25		1.68	V
Maximum DC Reverse Current at Maximum DC Blocking Voltage	I_R	$T_a=25^\circ C$	5.0						μA
		$T_a=125^\circ C$	100						μA
Maximum Reverse Recovery Time	T_{rr}	$I_F=0.5A$ $I_R=1A$ $I_{rr}=0.25A$	35						ns

电参数曲线图 / Electrical Characteristic Curve

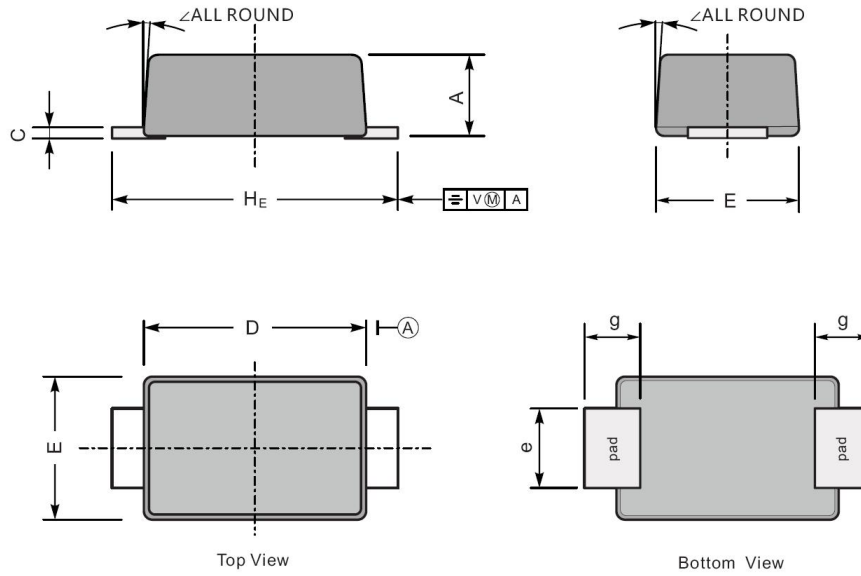


Note: 1. Rise Time = 7ns, max.
Input Impedance = 1megohm, 22pF.
2. Rises Time = 10ns, max.
Source Impedance = 50 ohms.



外形尺寸图 / Package Dimensions

SOD-123FL

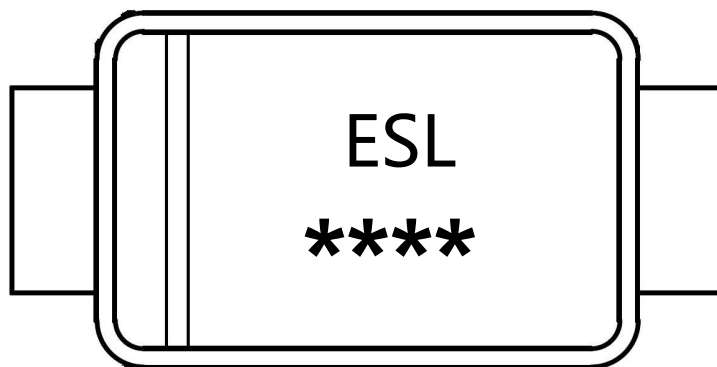


UNIT		A	C	D	E	e	g	H _E	∠
mm	max	1.1	0.20	2.9	1.9	1.1	0.9	3.8	7°
	min	0.9	0.12	2.6	1.7	0.8	0.7	3.5	
mil	max	43	7.9	114	75	43	35	150	
	min	35	4.7	102	67	31	28	138	

Marking

Type number	Marking code
ES1AW	ESL
ES1BW	
ES1CW	
ES1DW	
ES1EW	ESM
ES1GW	
ES1JW	ESH

印章说明 / Marking Instructions



说明：

ESL： 为型号代码

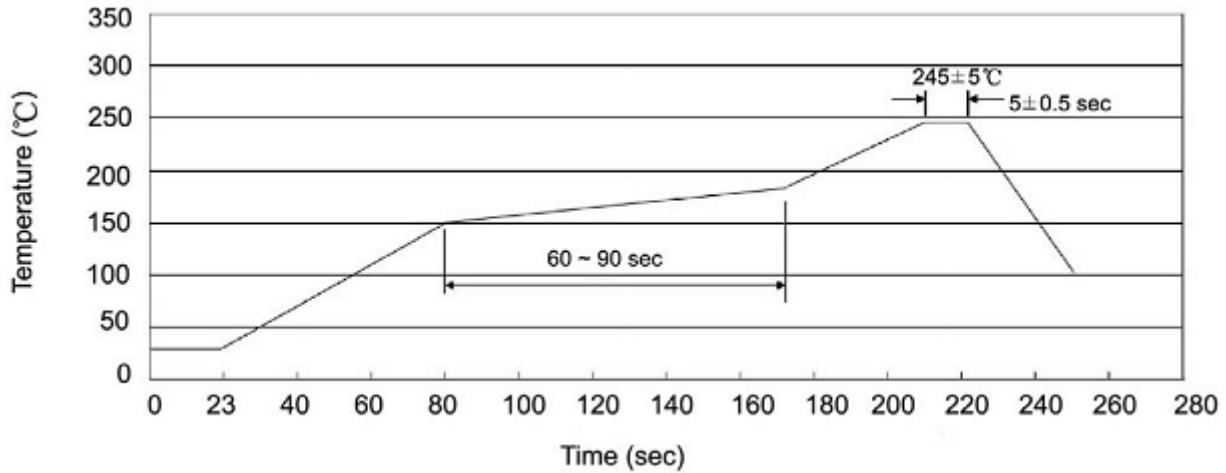
*****： 为生产批号追溯码，第1个*为年月代码，后面3个*为当月小批号代码

Note:

ESL： 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