

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 SMAF 封装。

Surface Mount General Purpose Silicon Rectifiers, Reverse Voltage: 50 to 1000V, Forward

Current: 1.0A, SMAF thin package.

特征 / Features

玻璃钝化芯片，无铅符合欧盟 RoHS 指令 2011/65/EU；适用于表面贴装，便于优化设计。无卤产品。

Glass Passivated Chip Junction, Lead free in comply with EU RoHS 2011/65/EU directives, For surface mounted applications, Easy to pick and place. Halogen free product.

用途 / Applications

一般用途。

General purpose.

内部等效电路 / Equivalent Circuit

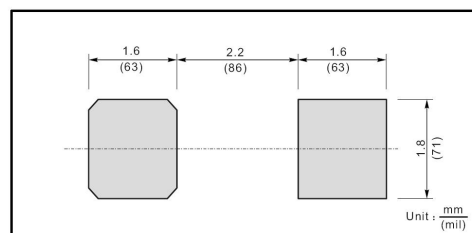


引脚排列 / Pinning



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
		S1AF	S1BF	S1DF	S1GF	S1JF	S1KF	S1MF	
Maximum Repetitive 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 8.3ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	30							A
Typical Junction Capacitance ¹⁾	C_j	15							pF
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	80							$^\circ\text{C}/\text{W}$
	$R_{\theta JC}$	27							$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	T_J, T_{stg}	-55~+150							$^\circ\text{C}/\text{W}$

Note:

- 1). Measured at 1 MHz 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
			S1AF	S1BF	S1DF	S1GF	S1JF	S1KF	S1MF	
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

Fig.1 Forward Current Derating Curve

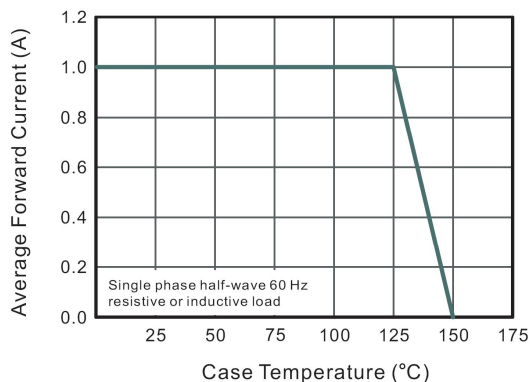


Fig.2 Typical Instantaneous Reverse Characteristics

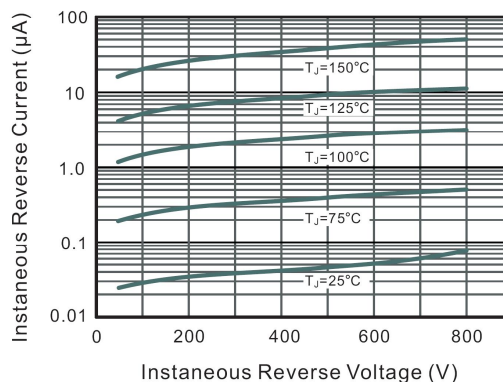


Fig.3 Typical Forward Characteristic

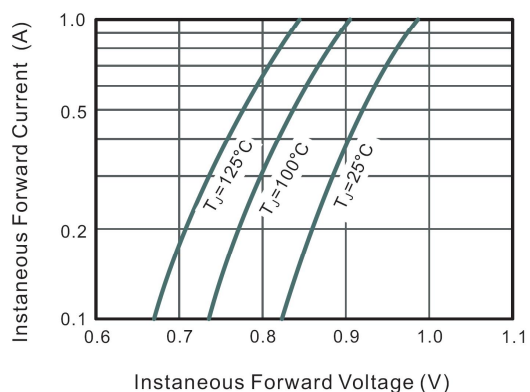


Fig.4 Typical Junction Capacitance

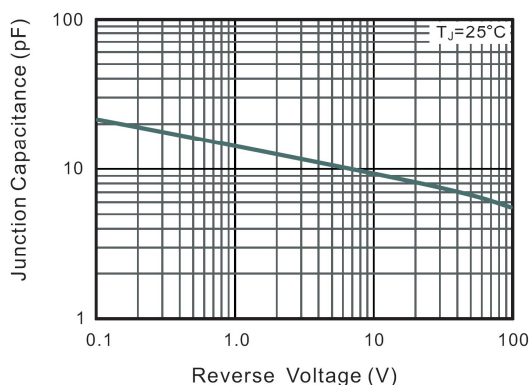
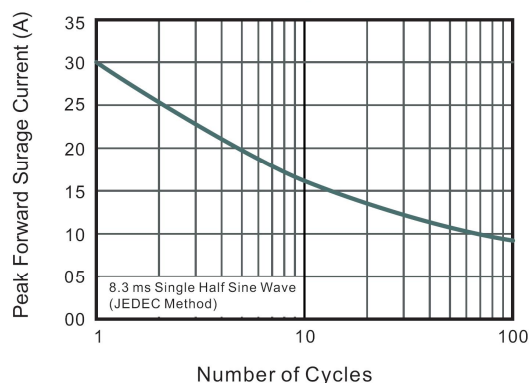
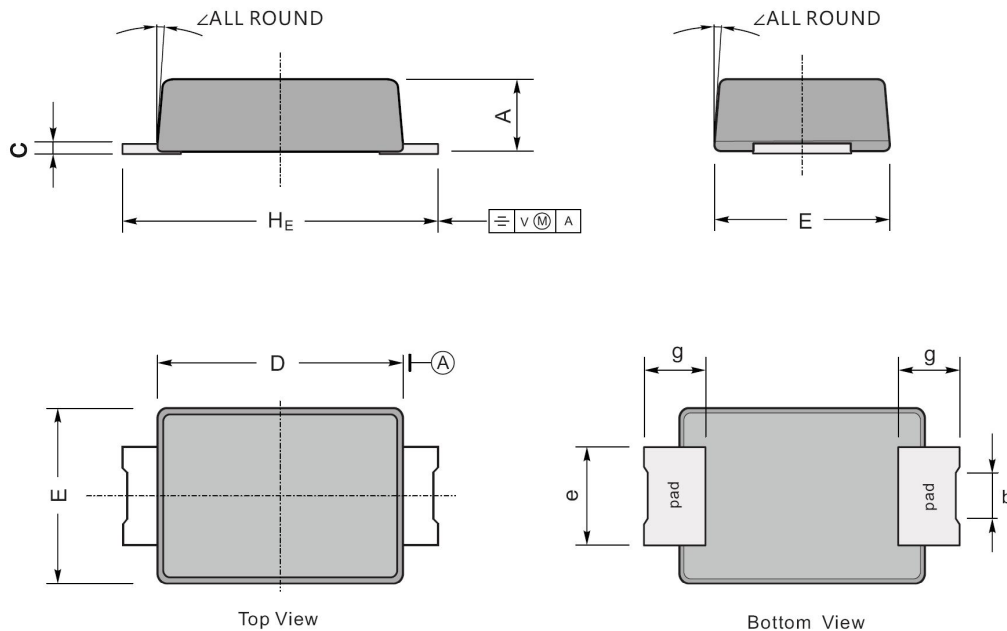


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



外形尺寸图 / Package Dimensions

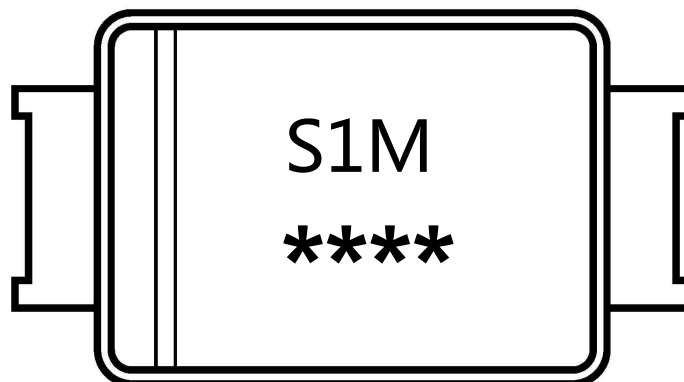


UNIT		A	C	D	E	e	g	H _E	b	∠
mm	max	1.2	0.20	3.7	2.7	1.6	1.2	4.9	1.05	7°
	min	0.9	0.12	3.3	2.4	1.3	0.8	4.4	0.65	
mil	max	47	7.9	146	106	63	47	193	41	
	min	35	4.7	130	94	51	31	173	26	

Marking

Type number	Marking code
S1AF	S1A
S1BF	S1B
S1DF	S1D
S1GF	S1G
S1JF	S1J
S1KF	S1K
S1MF	S1M

印章说明 / Marking Instructions



说明：

S1M：为型号代码

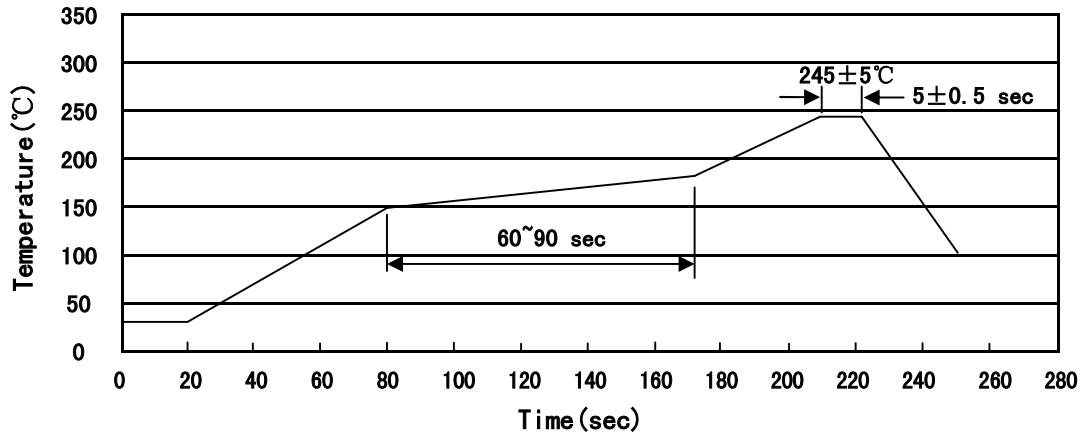
****：为生产批号追溯码，第1个*为年月代码，后面3个*为当月小批号代码

Note:

S1M：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 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 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
SMAF	3000	5	15000	5	75000	7" ×11	185X180X105	390X385X205

使用说明 / Notices