S3AF~S3MF

Rev.C Feb.-2015

描述 / Descriptions

快恢复二极管，反向电压：50V~1000V，正向电流：3.0A，薄型 SMAF 封装。

Surface Mount Fast Recovery Rectifiers, Reverse Voltage：50 to1000V,Forward Current:3.0A ,SMAF thin package.

特征 / Features

玻璃钝化芯片，无铅符合欧盟 RoHS 指令 2011/65/EU，适用表面贴装。无卤产品。

Glass Passivated Chip Junction, 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.

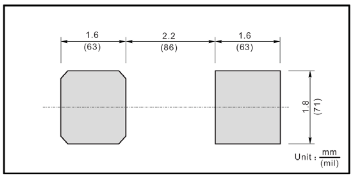
General purpose.

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℃)

参数 Parameter	符号 Symbol	数值 Rating							单位 Unit
		S3AF	S3BF	S3DF	S3GF	S3JF	S3KF	S3MF	
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	$I_{F（AV）}$	3.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	90							A
Typical Junction Capacitance at VR=4V f=1MHz	C_j	45							pF
Typical Thermal Resistance 1）	$R_{θJA}$	47							℃/W
Operating and Storage Temperature Range	T_j,T_{stg}	-55~+150							℃

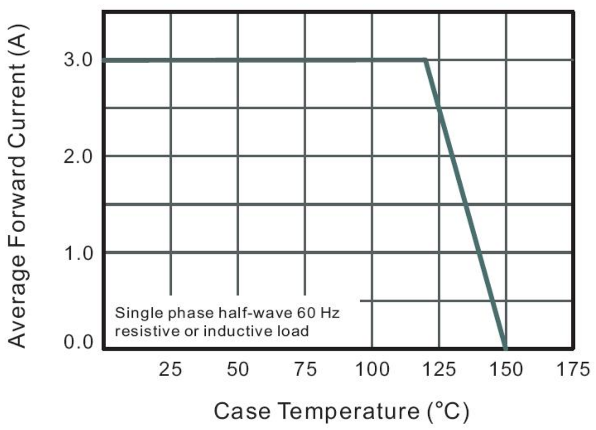
Note:

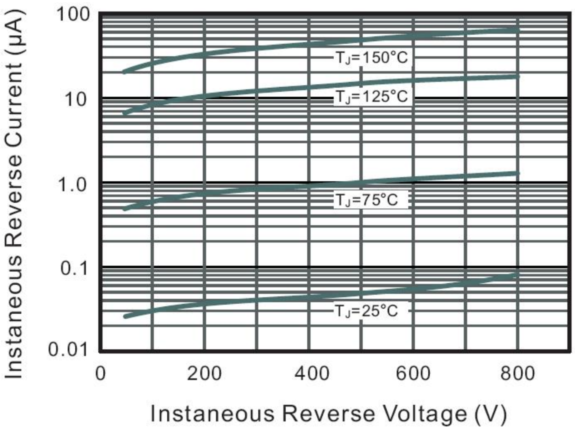
1）P.C.B. mounted with 1.0 X 1.0" (2.54 X 2.54 mm) copper pad areas.

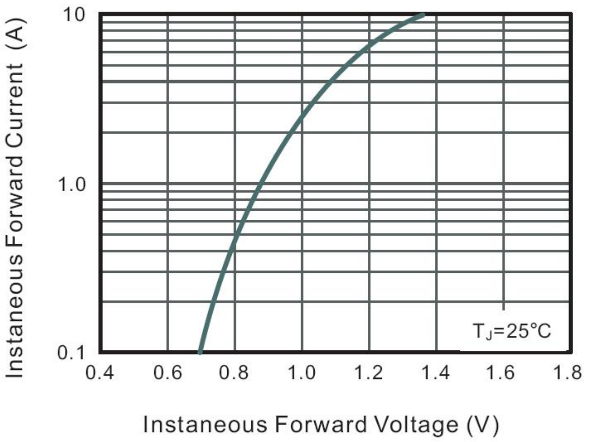
电性能参数 / Electrical Characteristics(Ta=25℃)

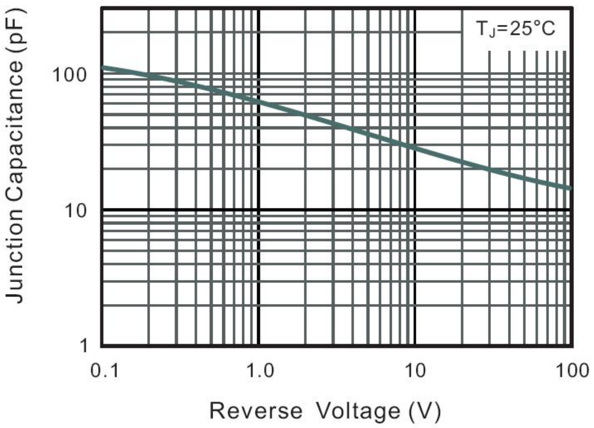
参数 Parameter	符号 Symbol	测试条件 Test Conditions	数值 Rating							单位 Unit
			S3AF	S3BF	S3DF	S3GF	S3JF	S3KF	S3MF	
Maximum Instantaneous Forward Voltage	V_F	I_F=3.0A	1.2							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	T_a=25℃	5.0							μA
		T_a=125℃	125							μA

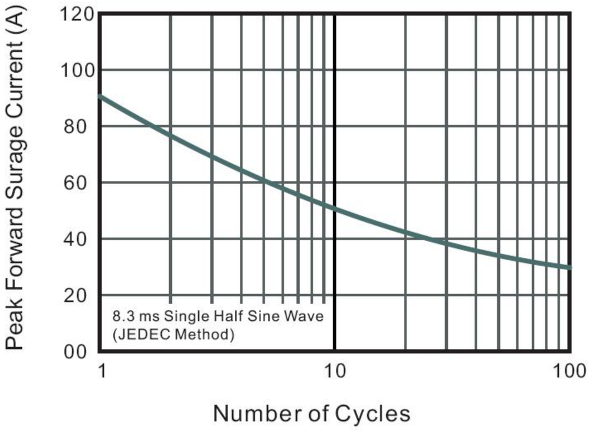
电参数曲线图 / Electrical Characteristic Curve





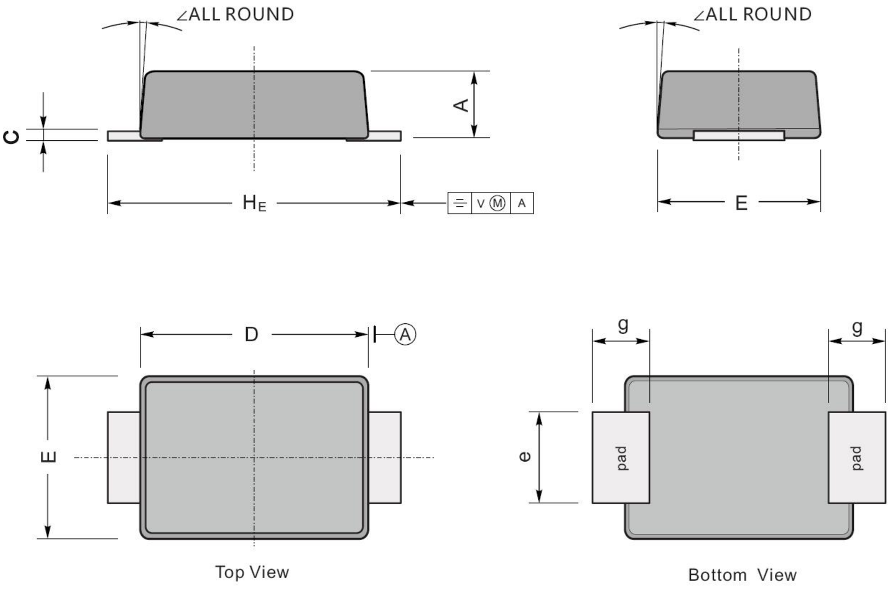






外形尺寸图 / Package Dimensions

SMAF

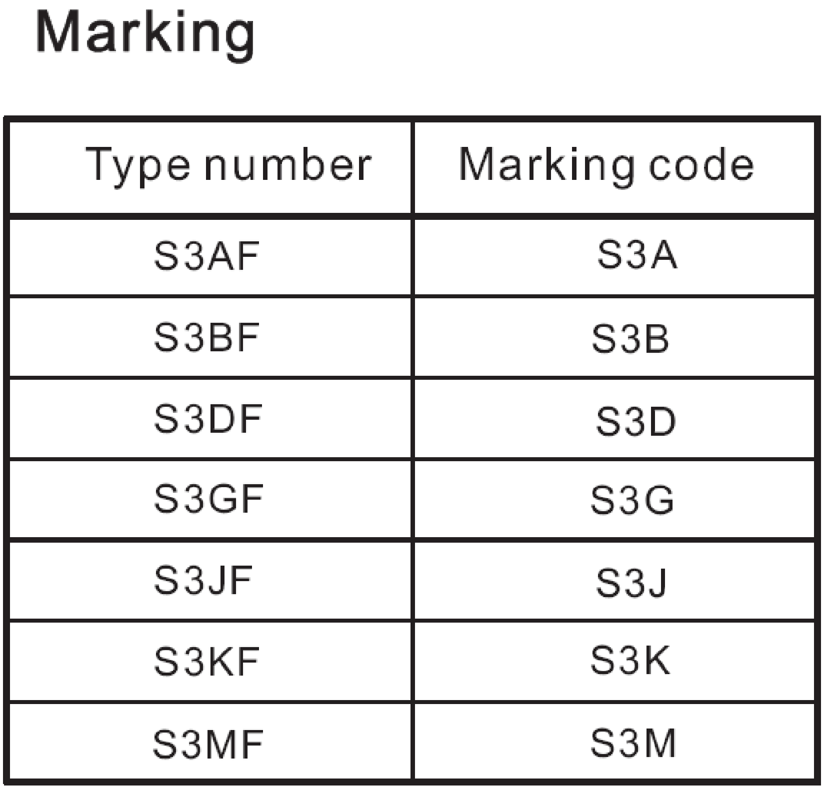


Top View

Bottom View

UNIT		A	C	D	E	e	g	H_E	∠
mm	max	1.1	0.20	3.7	2.7	1.6	1.2	4.9	7°
	min	0.9	0.12	3.3	2.4	1.3	0.8	4.4	
mil	max	43	7.9	146	106	63	47	193	
	min	35	4.7	130	94	51	31	173	

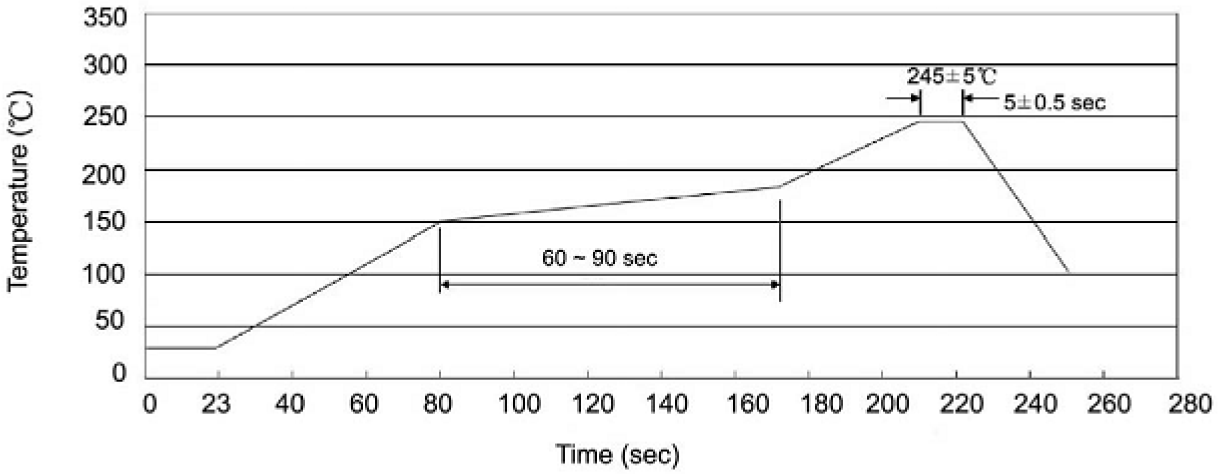
印章说明 / Marking Instructions



Marking

Type number	Marking code
S3AF	S3A
S3BF	S3B
S3DF	S3D
S3GF	S3G
S3JF	S3J
S3KF	S3K
S3MF	S3M

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℃，时间 60 ~ 90sec;
2、峰值温度 245±5℃，时间持续为 5±0.5sec;
3、焊接制程冷却速度为 2 ~ 10℃/sec.

Note:
1.Preheating:25~150℃, Time:60~90sec.
2.Peak Temp.:245±5℃, Duration:5±0.5sec.
3. Cooling Speed: 2~10℃/sec.

耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions

温度：260±5℃　　时间：10±1 sec.

Temp.:260±5℃　　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	550X210X220

使用说明 / Notices