

### 描述 / Descriptions

快恢复二极管，反向电压：1000V，正向电流：2.0A，薄型 SMAF 封装。

Surface Mount Fast Recovery Rectifiers, Reverse Voltage : 1000V, Forward Current:2.0A ,SMAF 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

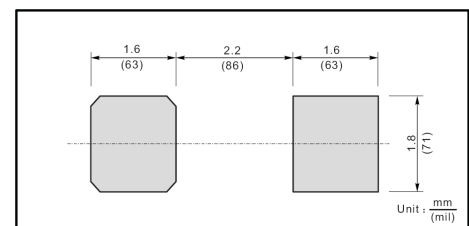


### 引脚排列 / Pinning



PIN	DESCRIPTION
1	Cathode
2	Anode

The recommended mounting pad size



### 印章代码 / Marking

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
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	1000	V
Maximum RMS voltage	$V_{RMS}$	700	V
Maximum DC Blocking Voltage	$V_{DC}$	1000	V
Maximum Average Forward Rectified Current at $T_c = 125^\circ\text{C}$	$I_{F(AV)}$	2.0	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	70	A
Typical Junction Capacitance at <sup>1)</sup>	$C_j$	35	pF
Typical Thermal Resistance <sup>2)</sup>	$R_{\theta JA}$	70	$^\circ\text{C}/\text{W}$
	$R_{\theta JC}$	20	$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55~+150	$^\circ\text{C}$

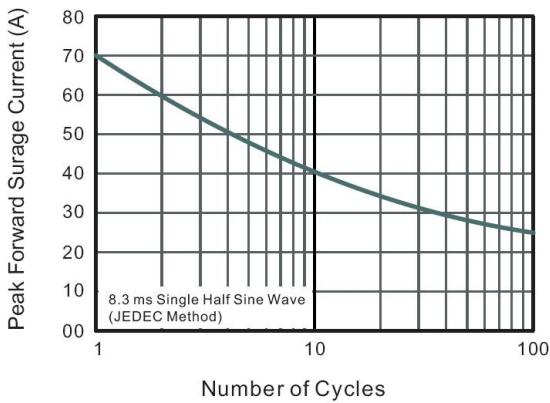
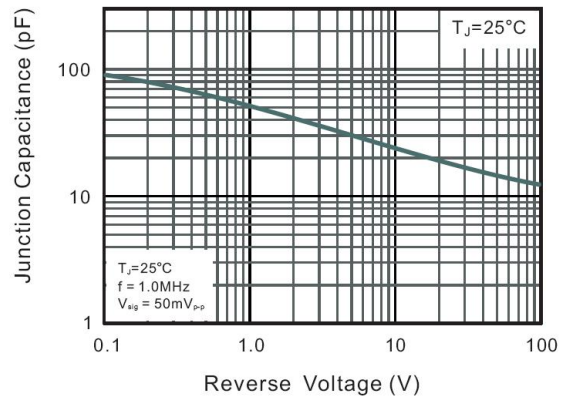
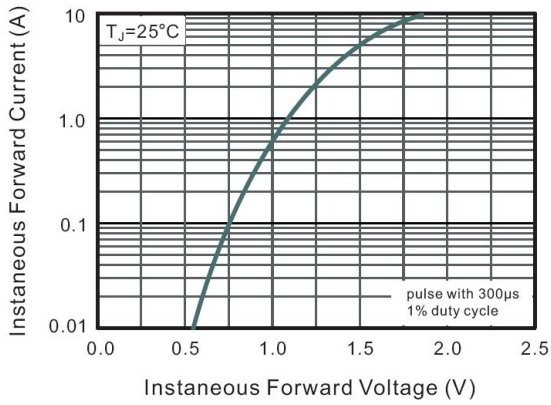
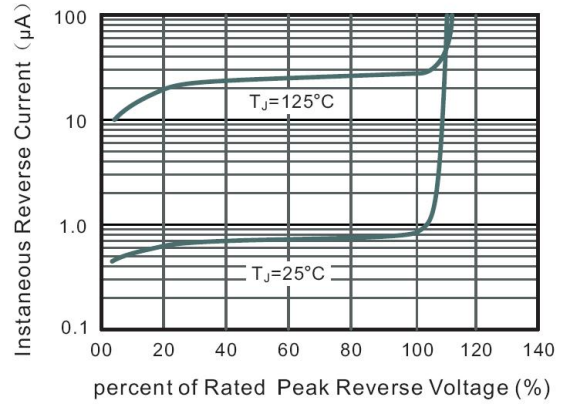
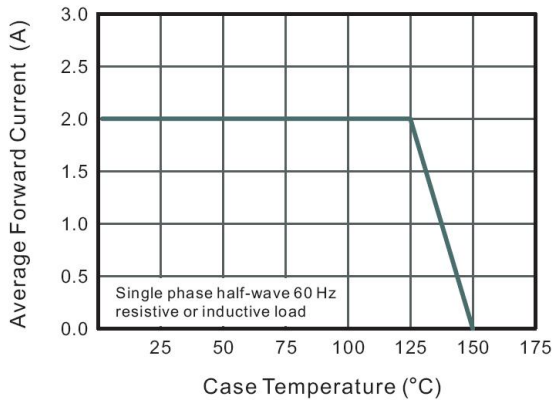
Note:

- 1) Measured at 1MHz and applied reverse voltage of 4V D.C.
- 2) P.C.B. mounted with 2.0 X 2.0" (5 X 5 cm) copper pad areas.

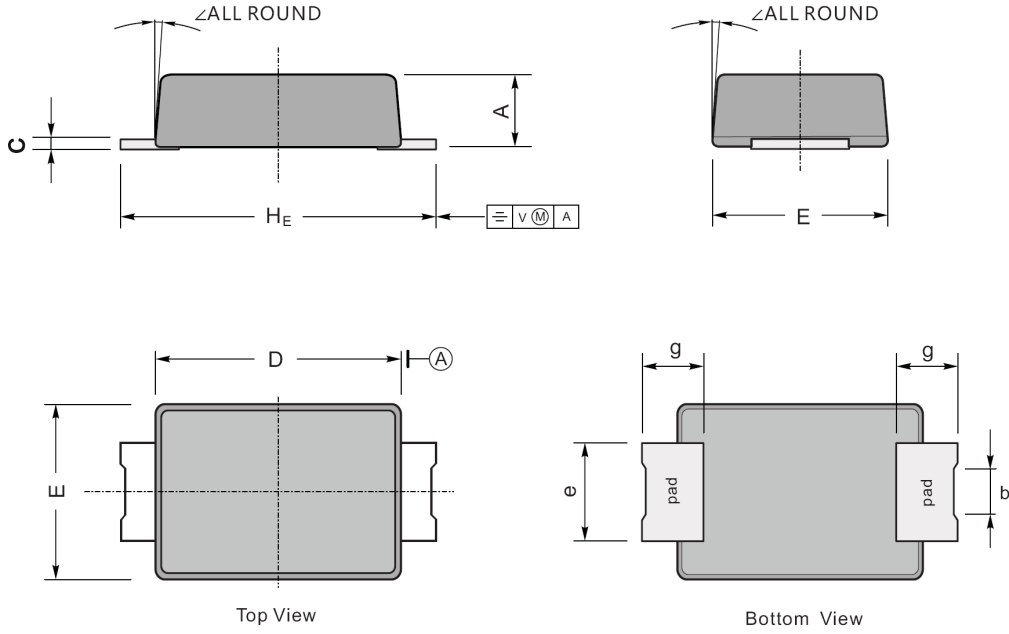
**电性能参数 / Electrical Characteristics(Ta=25°C)**

参数 Parameter	符号 Symbol	测试条件 Test Conditions	数值 Rating	单位 Unit
Maximum Instantaneous Forward Voltage	$V_F$	$I_F=2.0\text{A}$	1.3	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	$T_a=25^\circ\text{C}$	5.0	$\mu\text{A}$
		$T_a=125^\circ\text{C}$	100	$\mu\text{A}$
Maximum Reverse Recovery Time	$t_{rr}$	$I_F=0.5\text{A}$ $I_R=1.0\text{A}$ $I_{rr}=0.25\text{A}$	200	ns

**电参数曲线图 / Electrical Characteristic Curve**

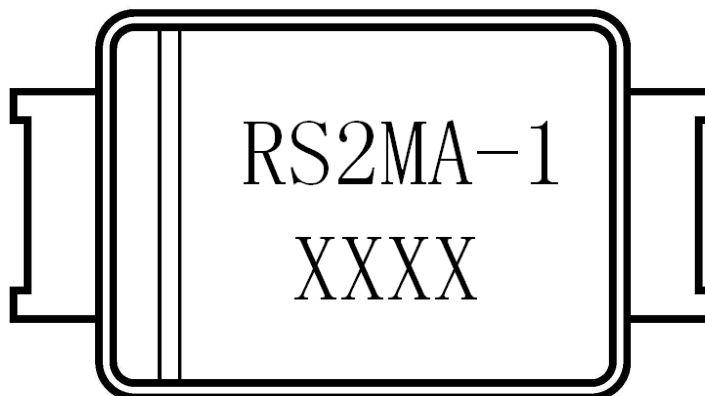


外形尺寸图 / Package Dimensions



UNIT		A	C	D	E	e	g	$H_E$	b	$\angle$
mm	max	1.2	0.20	3.7	2.7	1.6	1.2	4.9	1.05	$7^\circ$
	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	

印章说明 / Marking Instructions



说明：

RS2MA-1：为型号代码

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

Note:

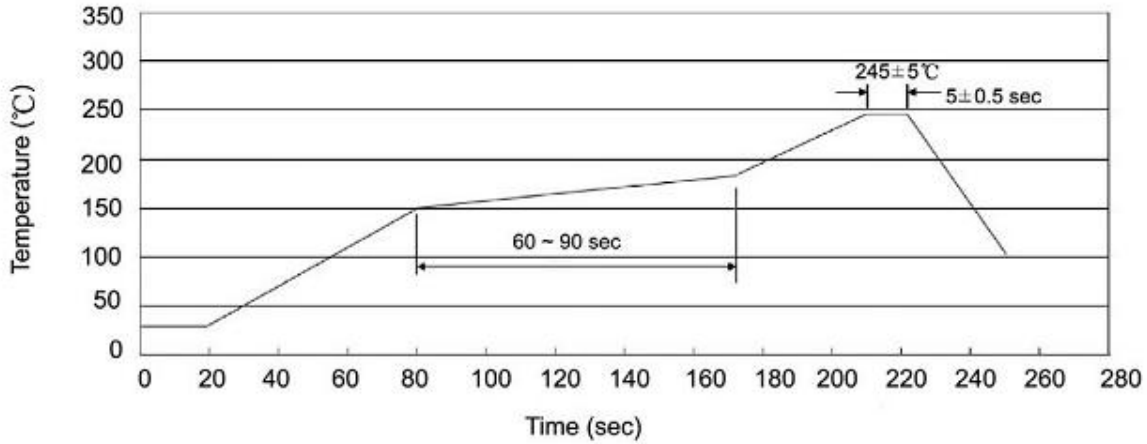
RS2MA-1：Product Type Code

XXXX： Lot No. Code，The 1st "X" means:YM Code，The last 3 "X" means:little  
Lot No Code

备注：同一个客户批次号会存在不同批号追溯码，但都是同一周期生产的产品。

Note: The same customer batch number will appear in one reel with two traceability code, the products were produced in the same period.

**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 <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
SMAF	3000	5	15000	5	75000	7" ×11	185X180X105	390X385X205

**使用说明 / Notices**