

## 描述 / Descriptions

表面贴装整流二极管，反向电压：50V~1000V，正向电流：1.0A，SMA 封装。  
Surface Mount General Purpose Silicon Rectifiers, Reverse Voltage：50 to1000V,Forward  
Current:1.0A ,SMA 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. HF product.

## 用途 / Applications

一般用途。  
General purpose.

## 内部等效电路 / Equivalent Circuit

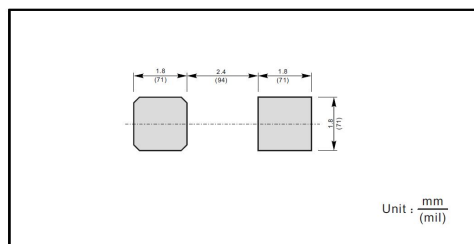


## 引脚排列 / Pinning



| 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<br>Parameter                                                                    | 符号<br>Symbol    | 数值<br>Rating |     |     |     |     |     |      | 单位<br>Unit |
|------------------------------------------------------------------------------------|-----------------|--------------|-----|-----|-----|-----|-----|------|------------|
|                                                                                    |                 | S1A          | S1B | S1D | S1G | S1J | S1K | S1M  |            |
| 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                                          | $I_F (AV)$      | 1.0          |     |     |     |     |     |      | A          |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load | $I_{FSM}$       | 30           |     |     |     |     |     |      | A          |
| Typical Junction Capacitance at $V_R=4V$ $f=1MHz$                                  | $C_j$           | 15           |     |     |     |     |     |      | pF         |
| Typical Thermal Resistance <sup>1)</sup>                                           | $R_{\theta JA}$ | 75           |     |     |     |     |     |      | °C/W       |
| Operating and Storage Temperature Range                                            | $T_j, T_{stg}$  | -55~+150     |     |     |     |     |     |      | °C         |

Note:

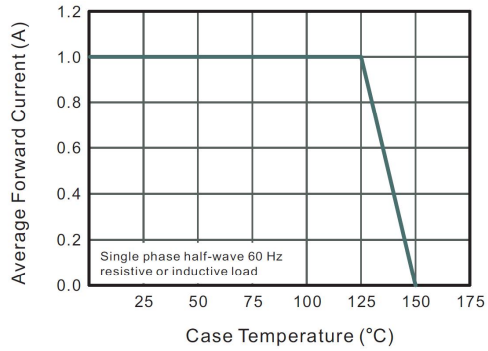
1) P.C.B. mounted with 2.0 X 2.0" (5 X5cm) copper pad areas.

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

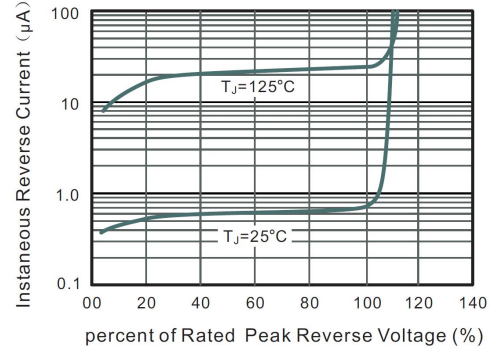
| 参数<br>Parameter                                         | 符号<br>Symbol | 测试条件<br>Test Conditions | 数值<br>Rating |     |     |     |     |     |     | 单位<br>Unit |
|---------------------------------------------------------|--------------|-------------------------|--------------|-----|-----|-----|-----|-----|-----|------------|
|                                                         |              |                         | S1A          | S1B | S1D | S1G | S1J | S1K | S1M |            |
| Maximum Instantaneous Forward Voltage                   | $V_F$        | $I_F=1.0A$              | 1.1          |     |     |     |     |     |     | V          |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | $I_R$        | $T_a=25^\circ C$        | 5.0          |     |     |     |     |     |     | $\mu A$    |
|                                                         |              | $T_a=125^\circ C$       | 50           |     |     |     |     |     |     | $\mu A$    |

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

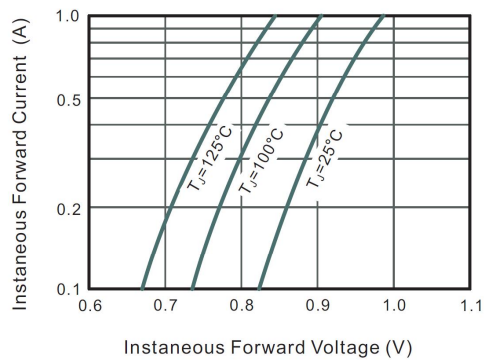
**Fig.1 Forward Current Derating Curve**



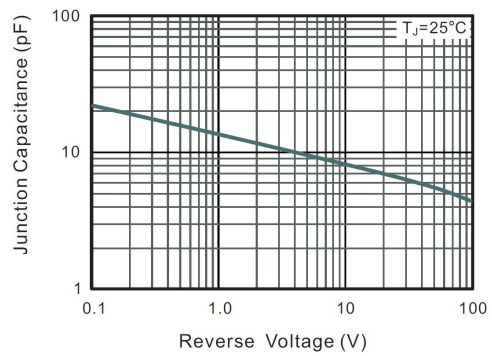
**Fig.2 Typical Reverse Characteristics**



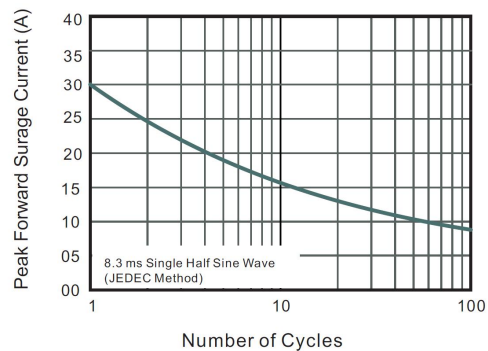
**Fig.3 Typical Forward Characteristic**



**Fig.4 Typical Junction Capacitance**

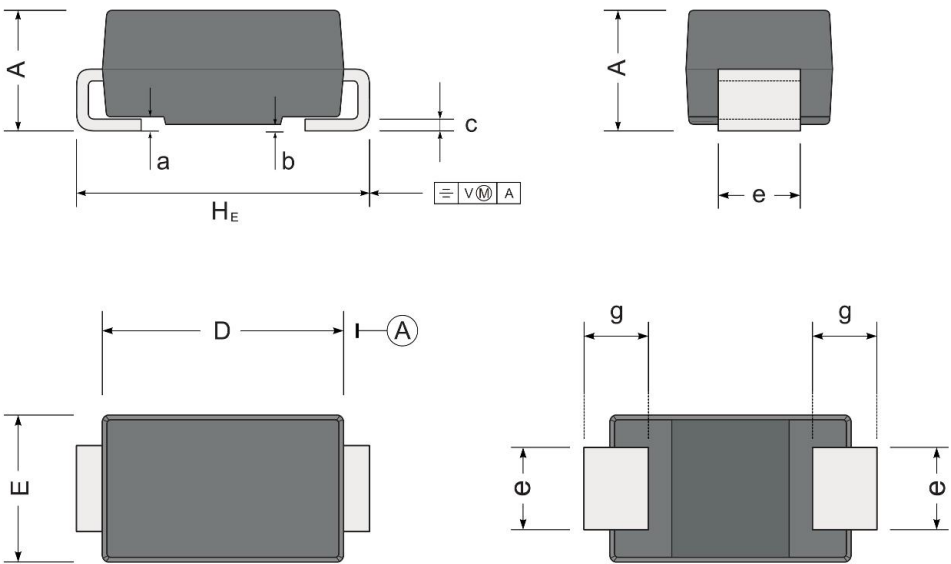


**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



外形尺寸图 / Package Dimensions

SMA



| UNIT |     | A   | D   | E   | $H_E$ | c    | e   | g   | b    | a   |
|------|-----|-----|-----|-----|-------|------|-----|-----|------|-----|
| mm   | max | 2.2 | 4.5 | 2.7 | 5.2   | 0.31 | 1.6 | 1.5 | 0.2  | 0.3 |
|      | min | 1.9 | 4.0 | 2.3 | 4.7   | 0.15 | 1.3 | 0.9 | 0.05 |     |
| mil  | max | 87  | 181 | 106 | 205   | 12   | 63  | 59  | 7.9  | 12  |
|      | min | 75  | 157 | 91  | 185   | 6    | 51  | 35  | 2    |     |

# Marking

| Type number | Marking code |
|-------------|--------------|
| S1A         | S1A          |
| S1B         | S1B          |
| S1D         | S1D          |
| S1G         | S1G          |
| S1J         | S1J          |
| S1K         | S1K          |
| S1M         | S1M          |

**印章说明 / Marking Instructions**



说明：

S1A： 为型号代码

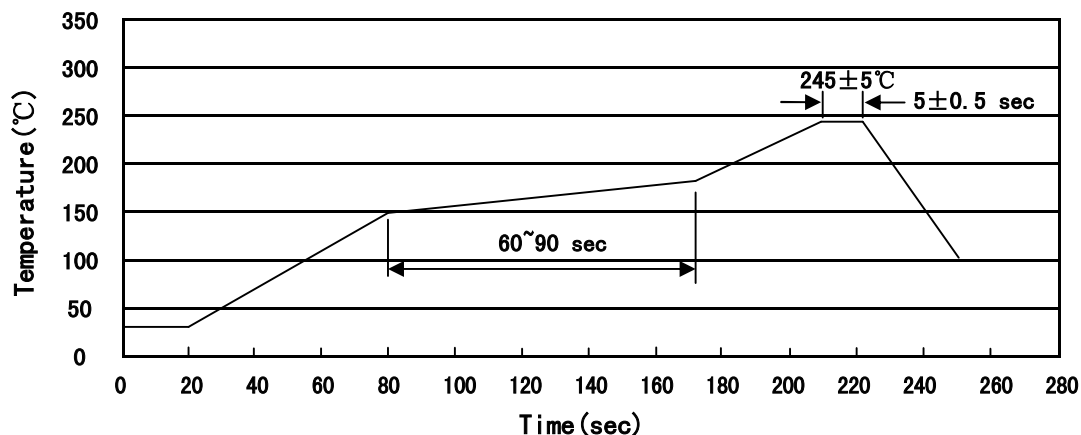
\*\*\*\*\*： 为生产批号追溯码，第1个\*为年月代码，后面3个\*为当月小批号代码

Note:

S1A： 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<br>封装形式 | Units 包装数量         |                         |                        |                              |                        | Dimension 包装尺寸 (unit: mm <sup>3</sup> ) |             |             |
|----------------------|--------------------|-------------------------|------------------------|------------------------------|------------------------|-----------------------------------------|-------------|-------------|
|                      | Units/Reel<br>只/卷盘 | Reels/Inner Box<br>卷盘/盒 | Units/Inner Box<br>只/盒 | Inner Boxes/Outer Box<br>盒/箱 | Units/Outer Box<br>只/箱 | Reel                                    | Inner Box 盒 | Outer Box 箱 |
| SMA                  | 5000               | 2                       | 10000                  | 7                            | 70000                  | 13" ×12                                 | 336X336X40  | 380X335X366 |

## 使用说明 / Notices