

### **Surface Mount General Purpose Rectifier**

Voltage 400~1000 V Current 1 A

#### **Features**

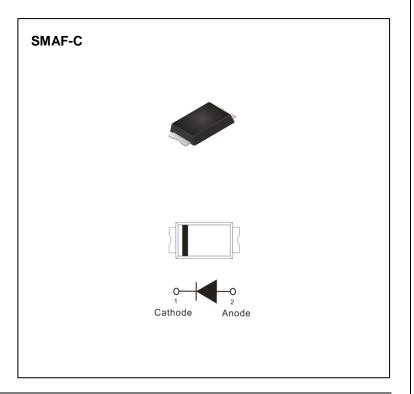
- Glass passivated chip junction
- Low forward voltage drop
- Low leakage current
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### **Mechanical Data**

• Case : Molded plastic, SMAF-C

• Terminals : Solderable per MIL-STD-750, Method 2026

• Approx. Weight: 0.0012 ounces, 0.034 grams



### Maximum Ratings and Thermal Characteristics (T<sub>A</sub> = 25°C unless otherwise noted)

| PARAMETER  | SYMBOL             | GS1GAFC     | GS1JAFC | GS1KAFC | GS1MAFC | UNIT |
|--|--------------------|-------------|---------|---------|---------|------|
| Maximum Recurrent Peak Reverse Voltage   | V <sub>RRM</sub>   | 400         | 600     | 800     | 1000    | V    |
| Maximum RMS Voltage  | V <sub>RMS</sub>   | 280         | 420     | 560     | 700     | V    |
| Maximum DC Blocking Voltage  | V <sub>R</sub>     | 400         | 600     | 800     | 1000    | V    |
| Maximum Average Forward Rectified Current  | I <sub>F(AV)</sub> | 1           |         |         | А       |      |
| Peak Forward Surge Current : 8.3 ms<br>Single Half Sine-Wave Superimposed<br>On Rated Load | I <sub>FSM</sub>   | 30          |         |         | А       |      |
| Instantaneous Forward Voltage at 1A  | V <sub>F</sub>     | 1.1         |         |         |         | V    |
| Reverse Current  | I <sub>R</sub>     | 1           |         |         | uA      |      |
| Typical Junction Capacitance  Measured at 1 MHz And Applied $V_R = 4V$                     | CJ                 | 7           |         |         |         | pF   |
| Typical Thermal Resistance (Note 1) (Note 2)   | Røjl<br>Røja       | 20<br>150   |         |         | °C/W    |      |
| Operating Junction Temperature Range   | TJ                 | -55 to +150 |         |         | °C      |      |
| Storage Temperature Range  | T <sub>STG</sub>   | -55 to +150 |         |         | °C      |      |

### NOTES:

- 1. Mounted on 48cm<sup>2</sup> copper pad area
- 2. Mounted on a FR4 PCB, single-sided copper, standard footprint



## **TYPICAL CHARACTERISTIC CURVES**

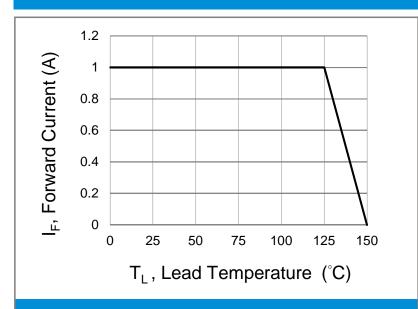
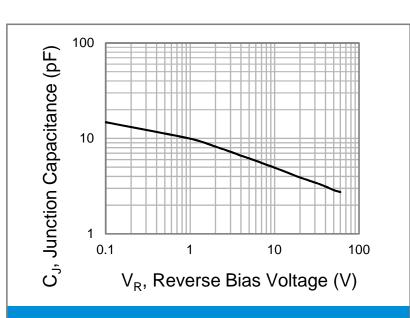
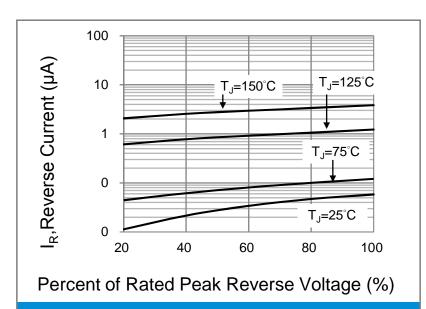


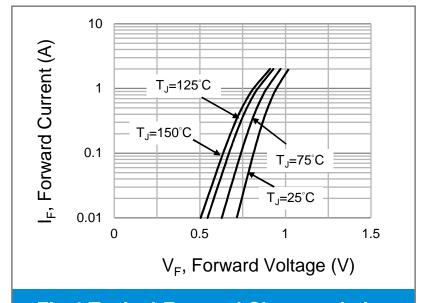
Fig.1 Forward Current Derating Curve



**Fig.2 Typical Junction Capacitance** 



**Fig.3 Typical Reverse Characteristics** 



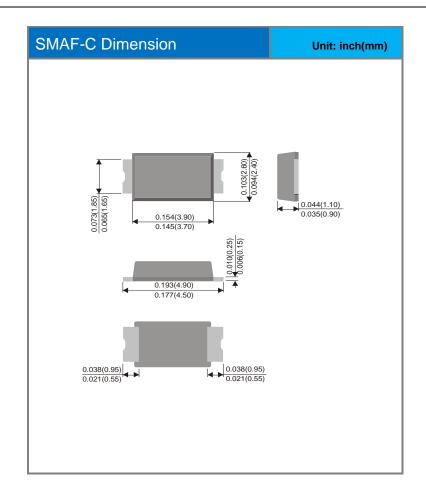
**Fig.4 Typical Forward Characteristics** 

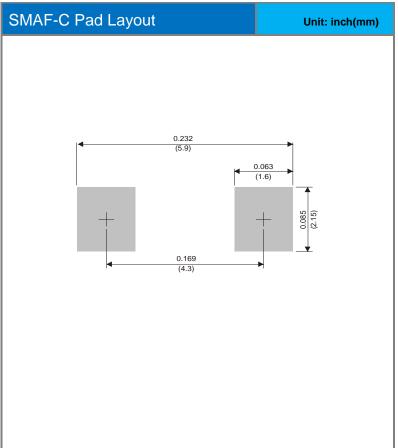


## **Product and Packing Information**

| Part No. | Package Type | Packing Type     | Marking |
|----------|--------------|------------------|---------|
| GS1GAFC  | SMAF-C       | 3K pcs / 7" reel | GS1G    |
| GS1JAFC  | SMAF-C       | 3K pcs / 7" reel | GS1J    |
| GS1KAFC  | SMAF-C       | 3K pcs / 7" reel | GS1K    |
| GS1MAFC  | SMAF-C       | 3K pcs / 7" reel | GS1M    |

## **Packaging Information & Mounting Pad Layout**







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