



# S1GF-AU

## SURFACE MOUNT SUPERFAST RECTIFIER

**VOLTAGE** 400 Volt **CURRENT** 1 Ampere

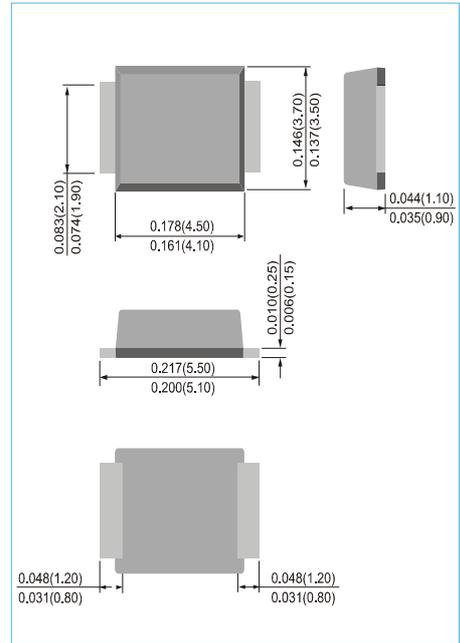
**SMBF** Unit : inch(mm)

### FEATURES

- For surface mounted applications in order to optimize board space
- Low profile package
- Easy pick and place
- Complete device submersible temperature of 260°C for 10 seconds in solder bath
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated junction
- Acquire quality system certificate : TS16949
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

- Case: SMBF molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0018 ounces, 0.05 grams
- Polarity: Color band denotes cathode end



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

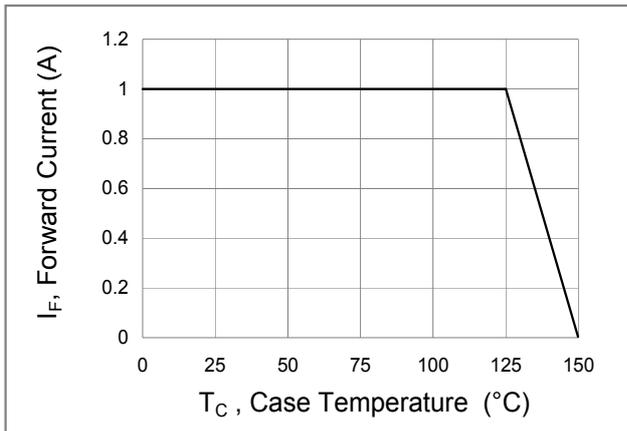
| PARAMETER   | SYMBOL                               | VALUE       | UNITS  |
|---|--------------------------------------|-------------|--------|
| Recurrent Peak Reverse Voltage  | V <sub>RRM</sub>                     | 400         | V      |
| RMS Voltage   | V <sub>RMS</sub>                     | 280         | V      |
| DC Blocking Voltage   | V <sub>R</sub>                       | 400         | V      |
| Average Forward Current   | I <sub>F(AV)</sub>                   | 1           | A      |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load   | I <sub>FSM</sub>                     | 30          | A      |
| Forward Voltage at 1A   | V <sub>F</sub>                       | 1.1         | V      |
| DC Reverse Current at Rated DC Blocking Voltage                                       | I <sub>R</sub>                       | 1           | μA     |
| Typical Junction Capacitance  | C <sub>J</sub>                       | 9           | pF     |
| Typical Thermal Resistance ,Junction to Lead (Note 1)<br>Junction to Ambient (Note 2) | R <sub>θJL</sub><br>R <sub>θJA</sub> | 15<br>135   | °C / W |
| Operating Junction Temperature and Storage Temperature Range                          | T <sub>J</sub> , T <sub>STG</sub>    | -55 to +150 | °C     |

NOTES : 1. Mounted on a FR4 PCB, single-sided copper, with 48cm<sup>2</sup> copper pad area  
2. Mounted on a FR4 PCB, single-sided copper, mini pad.

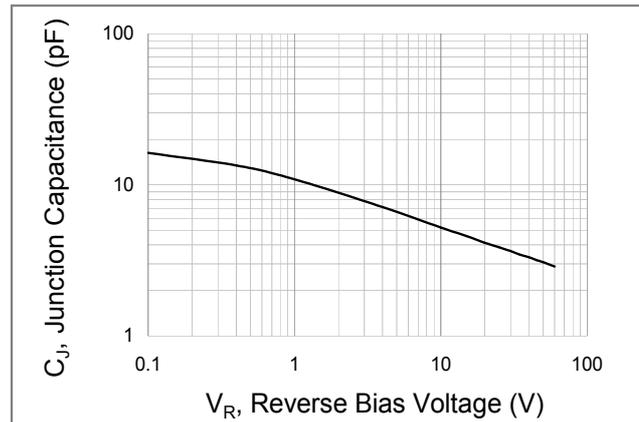


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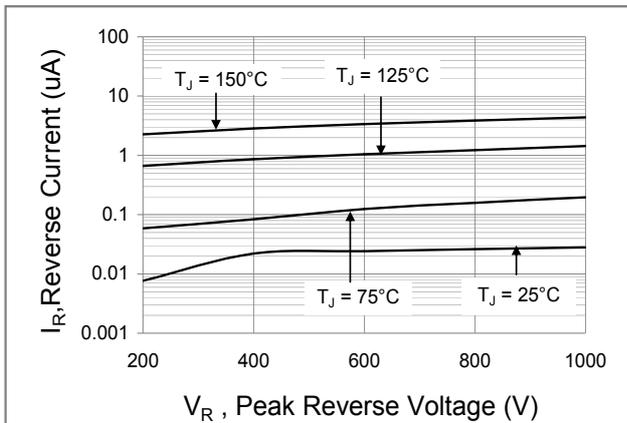
## RATING AND CHARACTERISTIC CURVES



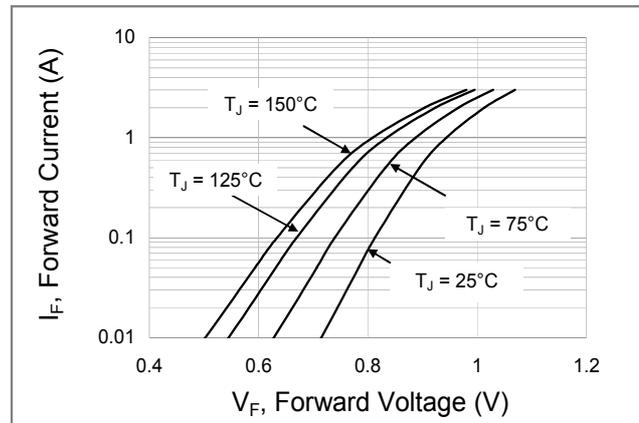
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**

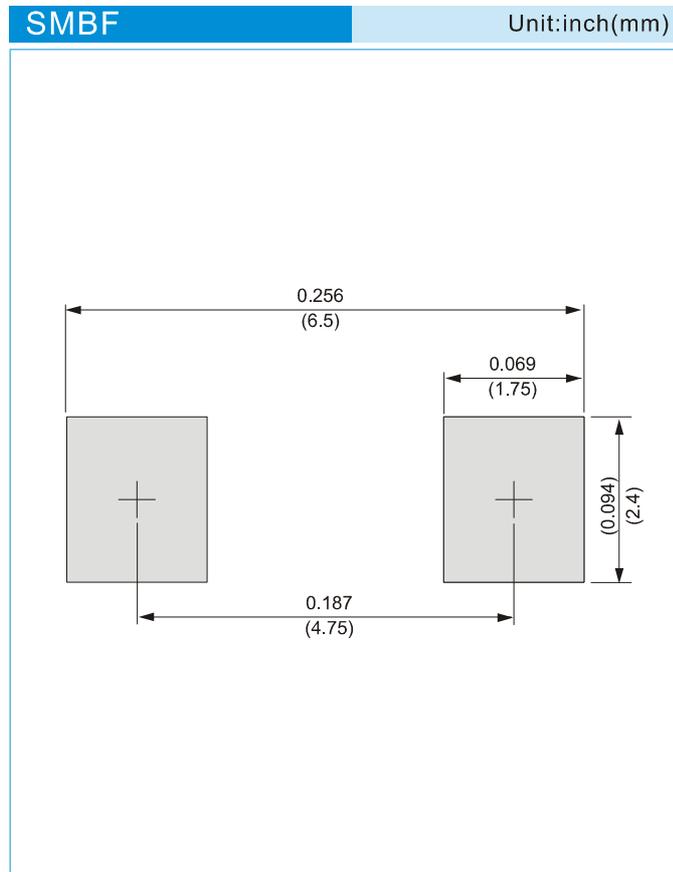


**Fig.4 Typical Forward Characteristics**



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information  
T/R - 5K per 13" plastic Reel



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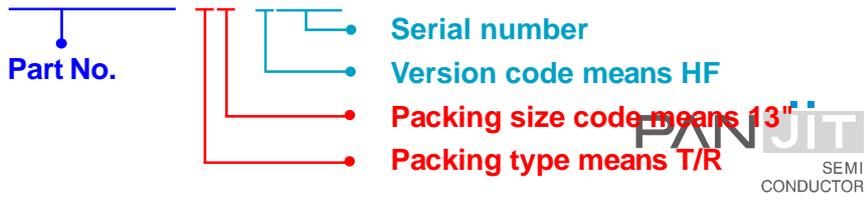
## Part No\_packing code\_Version

S1GF-AU\_R1\_000A1

S1GF-AU\_R2\_000A1

For example :

**RB500V-40\_R2\_00001**



| Packing Code <b>XX</b>               |                      |                                  |                      | Version Code <b>XXXXX</b> |                      |                                       |
|--------------------------------------|----------------------|----------------------------------|----------------------|---------------------------|----------------------|---------------------------------------|
| Packing type                         | 1 <sup>st</sup> Code | Packing size code                | 2 <sup>nd</sup> Code | HF or RoHS                | 1 <sup>st</sup> Code | 2 <sup>nd</sup> ~5 <sup>th</sup> Code |
| Tape and Ammunition Box (T/B)        | A                    | N/A                              | 0                    | HF                        | 0                    | serial number                         |
| Tape and Reel (T/R)                  | R                    | 7"                               | 1                    | RoHS                      | 1                    | serial number                         |
| Bulk Packing (B/P)                   | B                    | 13"                              | 2                    |                           |                      |                                       |
| Tube Packing (T/P)                   | T                    | 26mm                             | X                    |                           |                      |                                       |
| Tape and Reel (Right Oriented) (TRR) | S                    | 52mm                             | Y                    |                           |                      |                                       |
| Tape and Reel (Left Oriented) (TRL)  | L                    | PANASERT T/B CATHODE UP (PBCU)   | U                    |                           |                      |                                       |
| FORMING                              | F                    | PANASERT T/B CATHODE DOWN (PBCD) | D                    |                           |                      |                                       |



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