



### EXTREME LOW VF SCHOTTKY BARRIER RECTIFIER

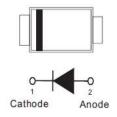
Voltage 80 V Current 8 A

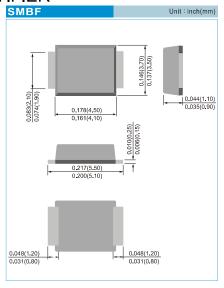
#### **Features**

- Ideal for automated placement
- Extreme low forward voltage drop, low power loss
- High efficiency operation
- Low thermal resistance
- Ultra thin profile package for space constrained utilization
- Easy pick and place package suitable for automated handling
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

#### Mechanical Data

- Case: SMBF package
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- Weight: 0.002 ounces, 0.05 grams.
- Marking: Part number





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

| PARAMETER  | SYMBOL   | LIMIT          | UNIT        |      |  |
|--|----------|----------------|-------------|------|--|
| Maximum repetitive peak reverse voltage  |          | VRRM           | 80          | V    |  |
| Maximum rms voltage  |          | VRMS           | 56          | V    |  |
| Maximum dc blocking voltage  | VR       | 80             | V           |      |  |
| Maximum average forward rectified current  |          | <b>I</b> F(AV) | 8           | Α    |  |
| Peak forward surge current: 8.3ms single half sine-<br>wave superimposed on rated load |          | İFSM           | 150         | А    |  |
| Typical junction capacitance (V <sub>R</sub> =4V, f=1MHz)                              |          | CJ             | 630         | pF   |  |
| - · · · · ·  | (Note 1) | R⊚JL           | 15          | 0000 |  |
| Typical thermal resistance   | (Note 2) | RΘJA           | 135         | °C/W |  |
| Operating junction temperature range   |          | TJ             | -55 to +150 | °C   |  |
| Storage temperature range  |          | Tstg           | -55 to +150 | °C   |  |

Note: 1. Mounted on a FR4 PCB, single-sided copper, with 100cm<sup>2</sup> copper pad area.

2. Mounted on a FR4 PCB, single-sided copper, mini pad.



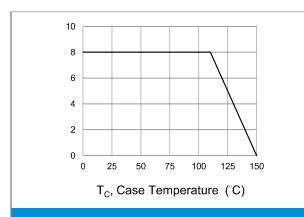


Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

| PARAMETER                     | SYMBOL         | TEST CONDITION        |                       | MIN. | TYP. | MAX. | UNITS |
|-------------------------------|----------------|-----------------------|-----------------------|------|------|------|-------|
| Breakdown voltage             | $V_{BR}$       | I <sub>R</sub> =0.5mA | T <sub>J</sub> =25°C  | 80   | -    | -    | V     |
| Instantaneous forward voltage | V <sub>F</sub> | I <sub>F</sub> =1A    | TJ=25°C               | -    | 0.39 | -    | V     |
|                               |                | I <sub>F</sub> =5A    |                       | _    | 0.49 | -    |       |
|                               |                | I <sub>F</sub> =8A    |                       | -    | 0.55 | 0.61 |       |
|                               |                | I <sub>F</sub> =1A    | TJ=125°C              | _    | 0.27 | -    | V     |
|                               |                | I <sub>F</sub> =5A    |                       | -    | 0.43 | -    |       |
| Reverse current               | I <sub>R</sub> | V <sub>R</sub> =56V   | T <sub>J</sub> =25°C  | -    | 6.5  | -    | μА    |
|                               |                | V <sub>R</sub> =80V   | T <sub>J</sub> =25°C  | -    | -    | 60   | μА    |
|                               |                |                       | T <sub>J</sub> =125°C | -    | 7.4  | -    | mA    |







**Fig.1 Forward Current Derating Curve** 

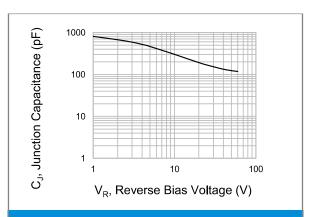


Fig.2 Typical Junction Capacitance

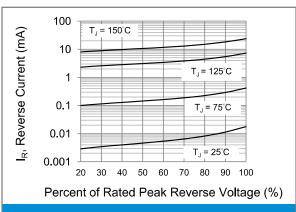


Fig.3 Typical Reverse Characteristics

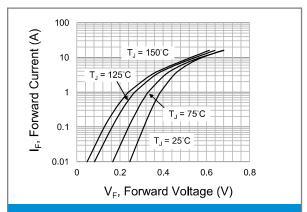
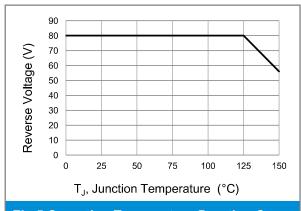


Fig.4 Typical Forward Characteristics

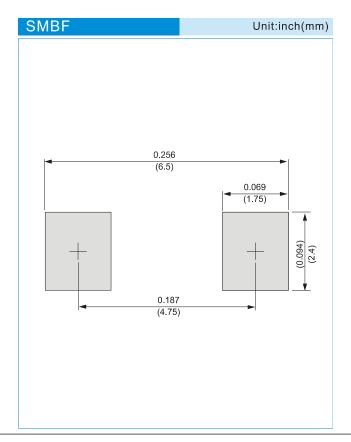


**Fig.5 Operating Temperature Derating Curve** 





#### **MOUNTING PAD LAYOUT**



#### **ORDER INFORMATION**

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

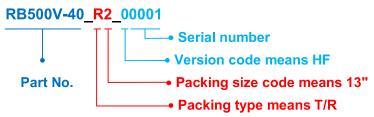




### Part No\_packing code\_Version

SRT880XF\_R1\_00001 SRT880XF\_R2\_00001

### For example:



| Packing Code XX                         |                         |                                     | Version Code XXXXX      |               |                         |  |
|---|-------------------------|-------------------------------------|-------------------------|---------------|-------------------------|--|
| Packing type                            | 1 <sup>st</sup><br>Code | Packing size code                   | 2 <sup>nd</sup><br>Code | HF or<br>RoHS | 1 <sup>st</sup><br>Code | 2 <sup>nd</sup> ~5 <sup>th</sup><br>Code |
| Tape and Ammunition<br>Box (T/B)        | A                       | N/A                                 | 0                       | HF            | 0                       | serial<br>number                         |
| Tape and Reel (T/R)                     | R                       | 7"                                  | 1                       | RoHS          | 1                       | serial<br>number                         |
| Bulk Packing (B/P)                      | В                       | 13"                                 | 2                       |               |                         |  |
| Tube Packing (T/P)                      | Т                       | <b>26</b> mm                        | X                       |               |                         |  |
| Tape and Reel (Right Oriented)<br>(TRR) | S                       | 52mm                                | Y                       |               |                         |  |
| Tape and Reel (Left Oriented) (TRL)     | ٦                       | PANASERT T/B<br>CATHODE UP (PBCU)   | U                       |               |                         |  |
| FORMING                                 | F                       | PANASERT T/B<br>CATHODE DOWN (PBCD) | D                       |               |                         |  |





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