



# SRT8100LF

## ULTRA LOW VF SCHOTTKY BARRIER RECTIFIER

**VOLTAGE** 100 Volt **CURRENT** 8 Ampere

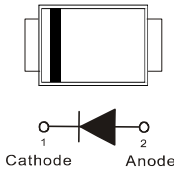
**SMBF** Unit : inch(mm)

### FEATURES

- Ideal for automated placement
- Ultra 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 2.0
- Green molding compound as per IEC 61249 standard

### MECHANICAL DATA

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



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

| PARAMETER   | SYMBOL                               | VALUE        | UNIT |
|---|--------------------------------------|--------------|------|
| Maximum Recurrent Peak Reverse Voltage  | V <sub>RRM</sub>                     | 100          | V    |
| Maximum RMS Voltage   | V <sub>RMS</sub>                     | 70           | V    |
| Maximum DC Blocking Voltage   | V <sub>R</sub>                       | 100          | V    |
| Maximum Average Rectified Output Current  | I <sub>F(AV)</sub>                   | 8            | A    |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load | I <sub>FSM</sub>                     | 80           | A    |
| Typical Junction Capacitance (V <sub>R</sub> =4V, f=1MHz)                           | C <sub>J</sub>                       | 360          | pF   |
| Typical Thermal Resistance (Notes 1)<br>(Notes 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 10cm\*10cm\*0.5mm copper pad area  
2.Mounted on a FR4 PCB, single-sided copper, mini pad.



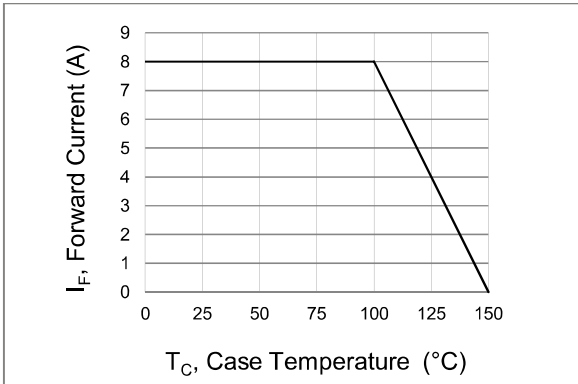
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## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

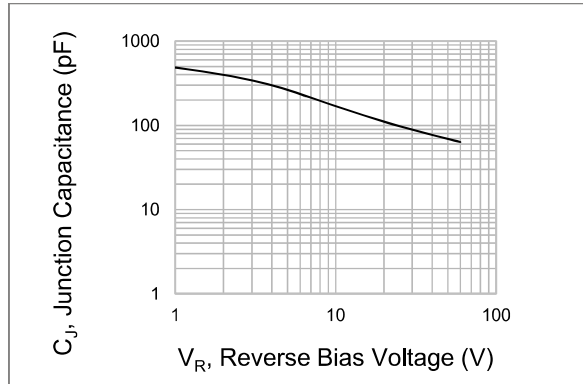
| PARAMETER                     | SYMBOL          | TEST CONDITIONS   | MIN.   | TYP.   | MAX.    | UNIT     |
|-------------------------------|-----------------|---|--------|--------|---------|----------|
| Break down voltage            | V <sub>BR</sub> | I <sub>R</sub> =0.5mA<br>T <sub>A</sub> =25°C                         | 100    | -      | -       | V        |
| Instantaneous forward voltage | V <sub>F</sub>  | I <sub>F</sub> =1A<br>T <sub>A</sub> =25°C                            | -      | 0.42   | -       | V        |
|                               |                 | I <sub>F</sub> =5A<br>T <sub>A</sub> =25°C                            | -      | 0.61   | -       |          |
|                               |                 | I <sub>F</sub> =8A<br>T <sub>A</sub> =25°C                            | -      | 0.71   | 0.79    |          |
|                               |                 | I <sub>F</sub> =1A<br>T <sub>A</sub> =125°C                           | -      | 0.33   | -       | V        |
| Reverse current               | I <sub>R</sub>  | V <sub>R</sub> =70V<br>T <sub>A</sub> =25°C                           | -      | 5      | -       | μA       |
|                               |                 | V <sub>R</sub> =100V<br>T <sub>A</sub> =25°C<br>T <sub>A</sub> =125°C | -<br>- | -<br>5 | 50<br>- | μA<br>mA |



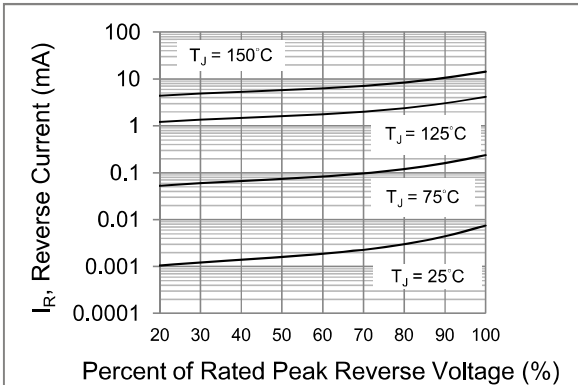
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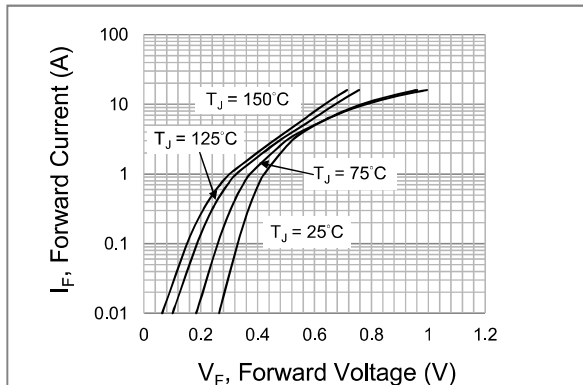
**Fig.1 Forward Current Derating Curve**



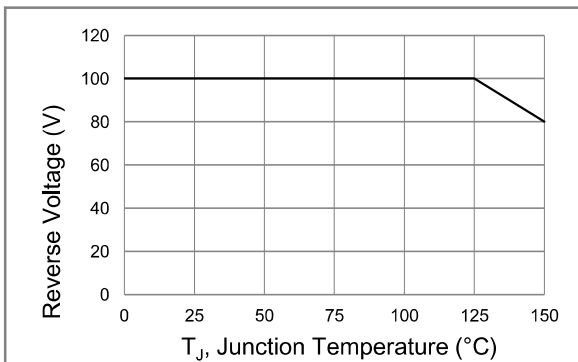
**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**

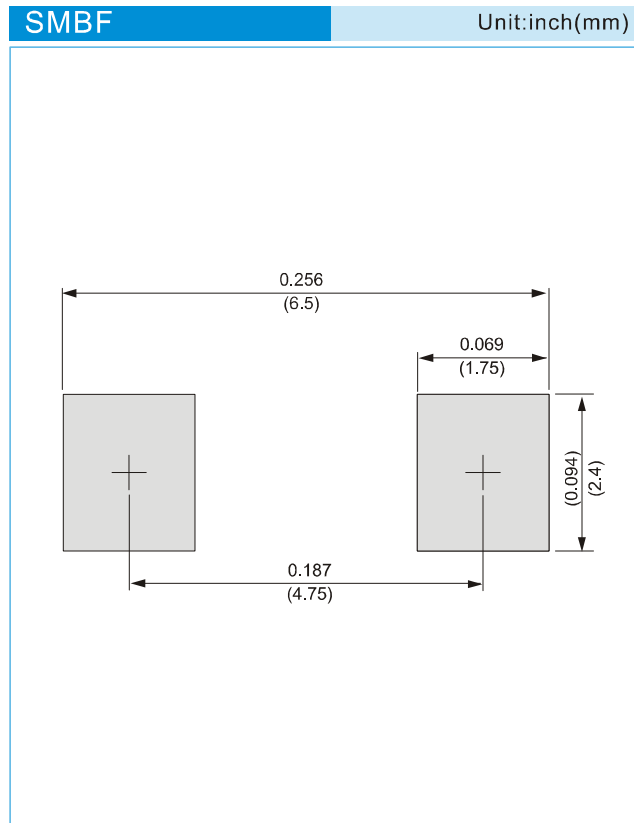


**Fig.5 Operating Temperature Derating Curve**



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information  
T/R - 1.5K per 7" plastic Reel  
T/R - 5K per 13" plastic Reel



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## Part No\_packing code\_Version

SRT8100LF\_R1\_00001

SRT8100LF\_R2\_00001

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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