



SR510VF

ULTRA LOW VF SCHOTTKY BARRIER RECTIFIER

| | | | |
|----------------|-----------------|----------------|-----------------|
| VOLTAGE | 100 Volt | CURRENT | 5 Ampere |
|----------------|-----------------|----------------|-----------------|

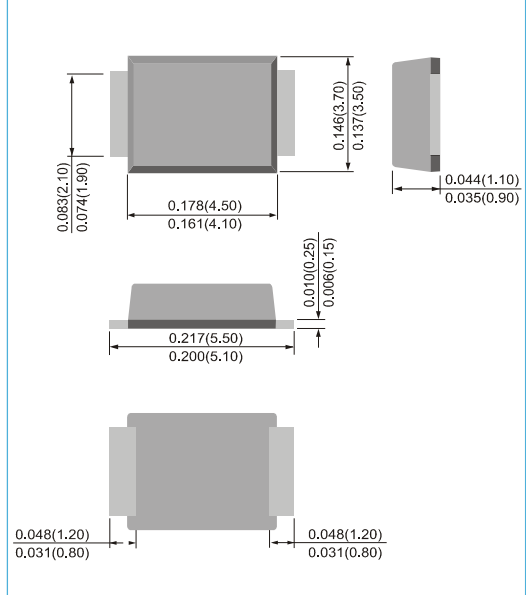
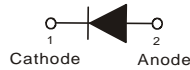
SMBF Unit : inch(mm)

FEATURES

- Ideal for automated placement
- Ultra low forward voltage drop, low power losses
- 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: 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 (TA=25°C unless otherwise noted)

| PARAMETER | SYMBOL | VALUE | UNIT |
|---|--|--------------|------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 100 | V |
| Maximum RMS Voltage | V _{RMS} | 70 | V |
| Maximum DC Blocking Voltage | V _R | 100 | V |
| Average Rectified Output Current | I _{F(AV)} | 5 | A |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load | I _{FSM} | 100 | A |
| Typical Junction Capacitance (V _R =4V, f=1MHz) | C _J | 340 | pF |
| Typical Thermal Resistance | (Notes 1) R _{θJA} (Notes 2) R _{θJC} | 135 10 | °C/W |
| Operating Junction Temperature and Storage Temperature range | T _J , T _{STG} | -55 to + 150 | °C |

NOTES : 1.Mounted on a FR4 PCB, single-sided copper, with 100cm² copper pad area.

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



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ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN. | TYP. | MAX. | UNIT |
|-------------------------------|-----------------|---|------|------|------|----------|
| Break down voltage | V _{BR} | I _R =0.5mA T _A =25°C | 100 | - | - | V |
| Instantaneous forward voltage | V _F | I _F =1A T _A =25°C | - | 0.44 | - | V |
| | | I _F =3A T _A =25°C | - | 0.58 | - | V |
| | | I _F =5A T _A =25°C | - | - | 0.7 | V |
| | | I _F =1A T _A =125°C | - | 0.35 | - | V |
| Reverse current | I _R | V _R =70V T _A =25°C | - | 5 | - | μA |
| | | V _R =100V T _A =25°C T _A =125°C | - | - | 50 | μA mA |

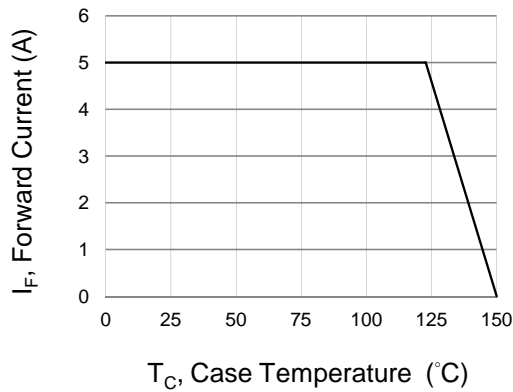


Fig.1 Forward Current Derating Curve

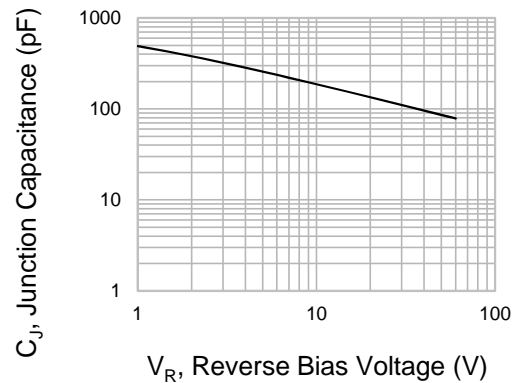


Fig.2 Typical Junction Capacitance

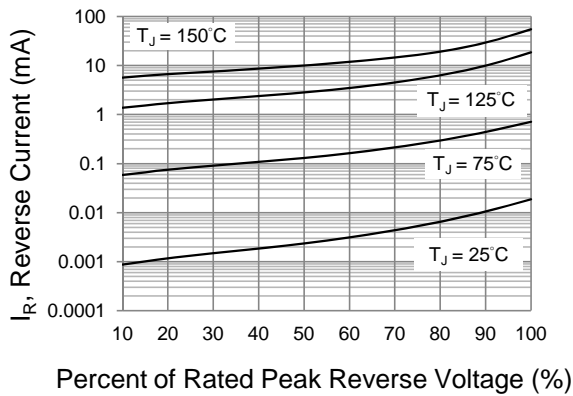


Fig.3 Typical Reverse Characteristics

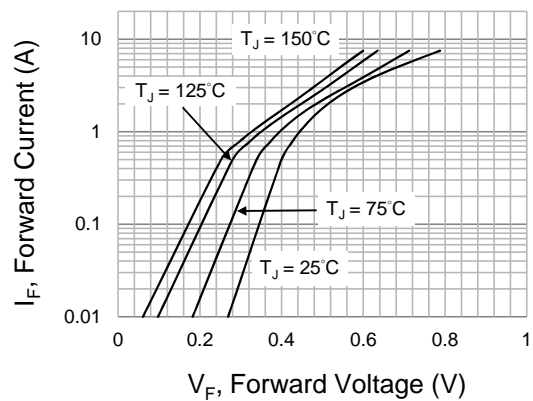
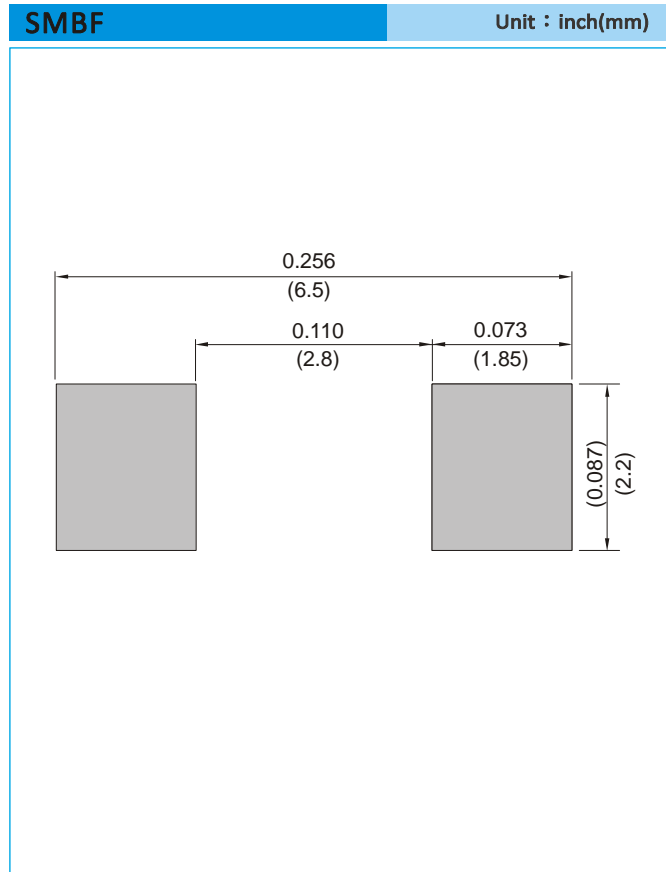


Fig.4 Typical Forward Characteristics



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MOUNTING PAD LAYOUT



ORDER INFORMATION

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



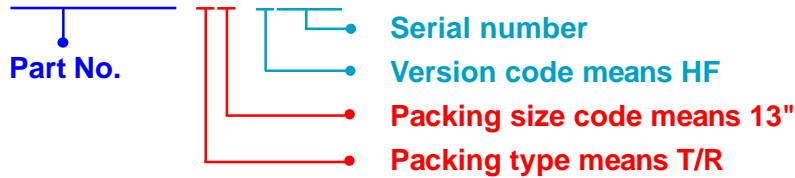
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Part No_packing code_Version

SR510VF_R2_00001

For example :

RB500V-40_R2_00001



| Packing Code XX | | | | Version Code XXXXX | | |
|--------------------------------------|----------------------|----------------------------------|----------------------|---------------------------|----------------------|---------------------------------------|
| Packing type | 1 st Code | Packing size code | 2 nd Code | HF or RoHS | 1 st Code | 2 nd -5 th 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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