

BR38F~BR320F

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

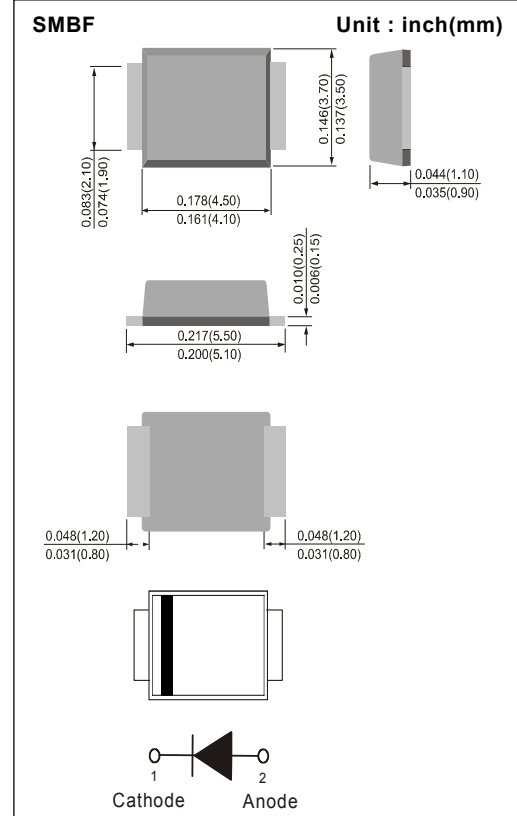
VOLTAGE 80-200Volt **CURRENT** 3 Ampere

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications in order to optimize board space
- Ultra thin profile package for space constrained utilization
- Package suitable for automated handling
- Low power loss,high efficiency
- High surge capacity
- Lead free in compliance with EU RoHS2.0 (2011/65/EU & 2015/865/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
- Marking: Part number



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise noted)

| PARAMETER | SYMBOL | BR38F | BR39F | BR310F | BR315F | BR320F | UNITS |
|---|--------------------------------------|-------------|-------|--------|--------|--------|--------|
| Recurrent Peak Reverse Voltage | V _{RRM} | 80 | 90 | 100 | 150 | 200 | V |
| RMS Voltage | V _{RMS} | 56 | 63 | 70 | 105 | 140 | V |
| DC Blocking Voltage | V _R | 80 | 90 | 100 | 150 | 200 | V |
| Average Forward Current | I _{F(AV)} | 3 | | | | | A |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load | I _{FSM} | 80 | | | | | A |
| Forward Voltage at 3A | V _F | 0.8 | | | 0.9 | | V |
| DC Reverse Current at Rated DC Blocking Voltage | I _R | 0.05 | | | | | mA |
| Typical Junction Capacitance (V _R =4V, f=1MHz) | C _J | 120 | | | 100 | 70 | pF |
| Typical Thermal Resistance ,Junction to Lead (Note 1) Junction to Ambient (Note 2) | R _{θJL} R _{θJA} | 17 135 | | | | | °C / W |
| Operating Junction Temperature and Storage Temperature Range | T _J , T _{STG} | -65 to +150 | | | | | °C |

NOTES :

1. Mounted on FR-4 PCB, single-sided copper, with 100cm² copper pad area.
2. Mounted on FR-4 PCB, single-sided copper, mini pad.

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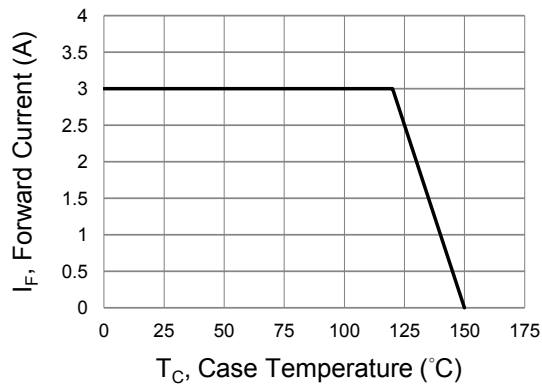


Fig.1 Forward Current Derating Curve

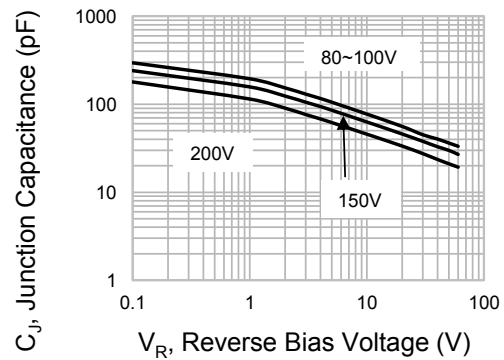


Fig.2 Typical Junction Capacitance

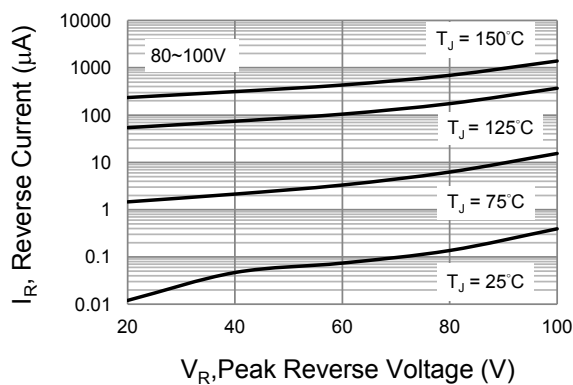


Fig.3 Typical Reverse Characteristics

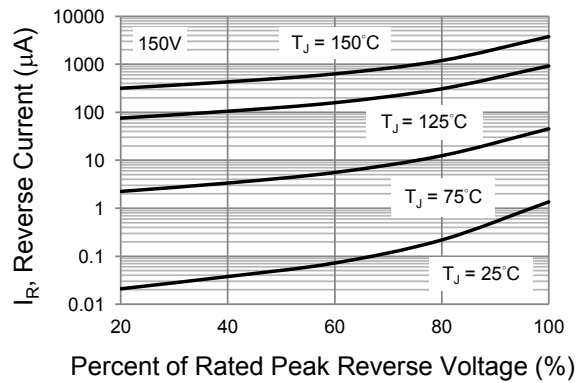


Fig.4 Typical Reverse Characteristics

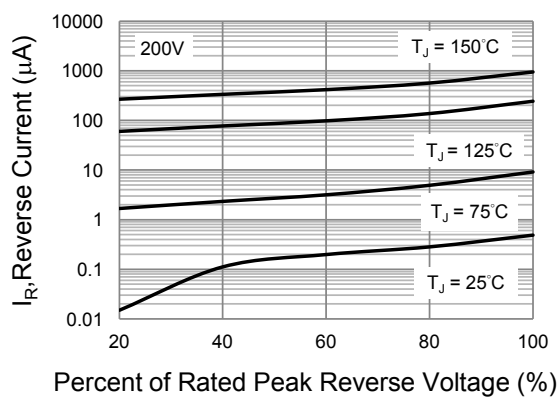


Fig.5 Typical Reverse Characteristics

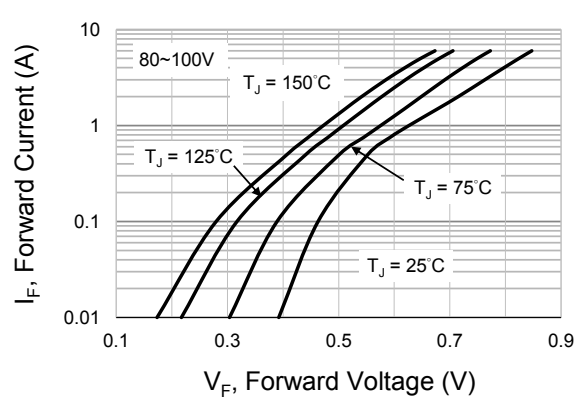


Fig.6 Typical Forward Characteristics

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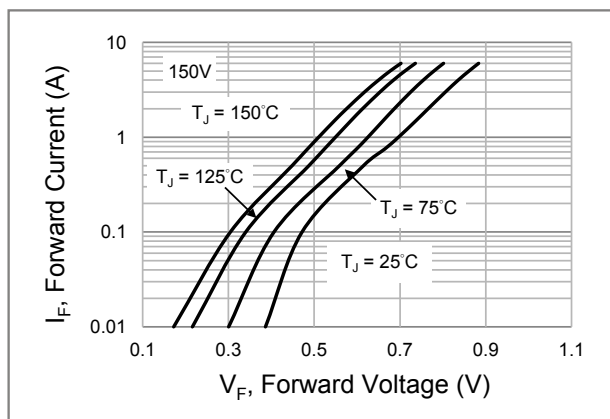


Fig.7 Typical Forward Characteristics

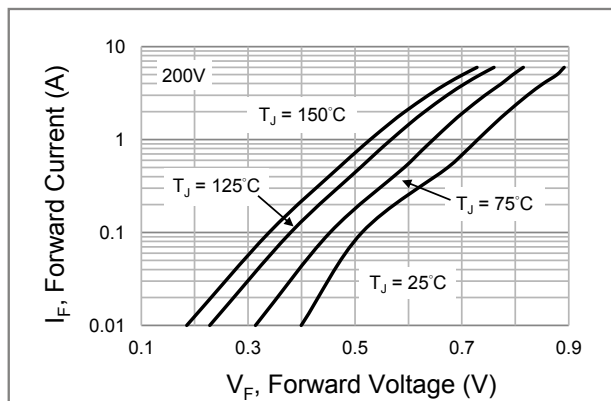


Fig.8 Typical Forward Characteristics

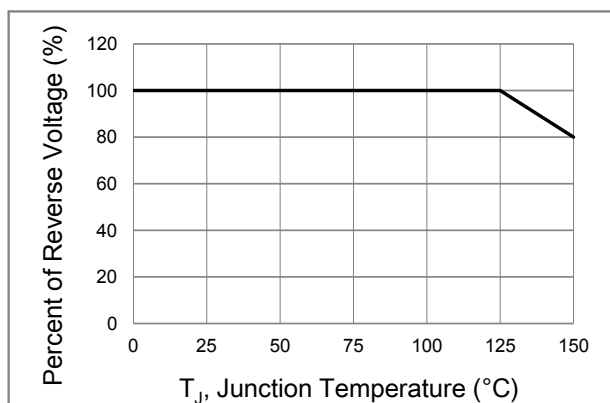


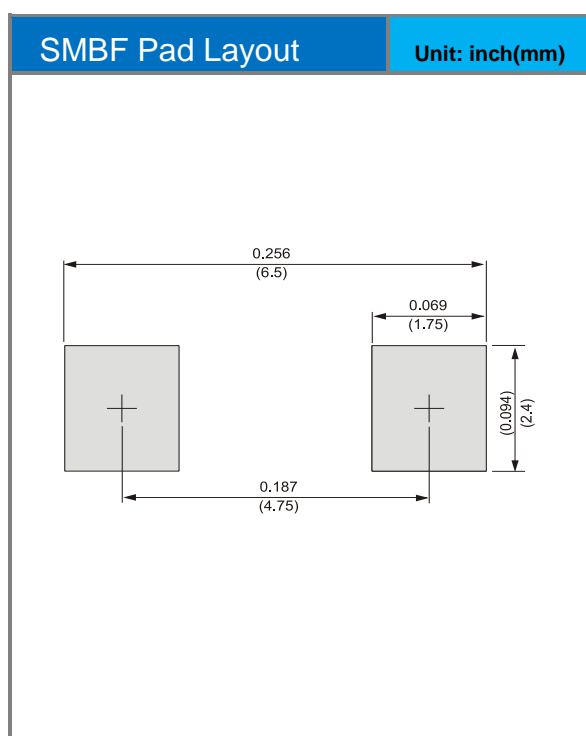
Fig.9 Operating Temperature Derating Curve

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Product and Packing Information

| Part No. | Package Type | Packing Type | Marking |
|----------|--------------|-------------------|-----------|
| BR3xxF | SMBF | 5K pcs / 13" reel | See Table |

Mounting Pad Layout



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