

## FEATURES

- ◆ Metal silicon junction,majority carrier conduction
- ◆ For surface mounted applications
- ◆ Low power loss,high efficiency
- ◆ High forward surge current capability
- ◆ For use in low voltage,high frequency inverters, free-wheeling, and polarity protection applications

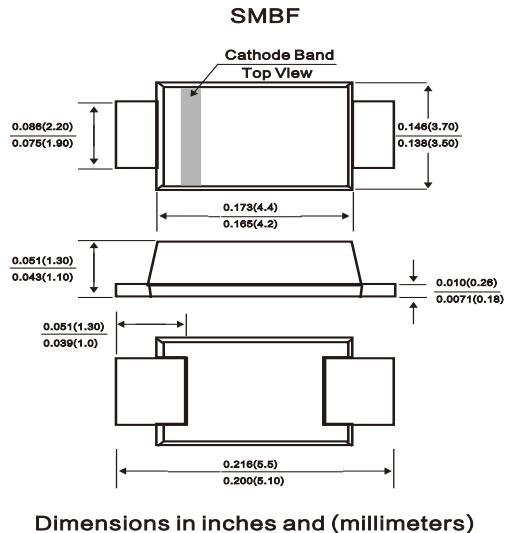
## MECHANICAL DATA

**Case:** JEDEC SMBF molded plastic body

**Terminals:** leads solderable per MIL-STD-750, Method 2026

**Mounting Position:** Any

**Weight:** 57mg/0.002oz



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

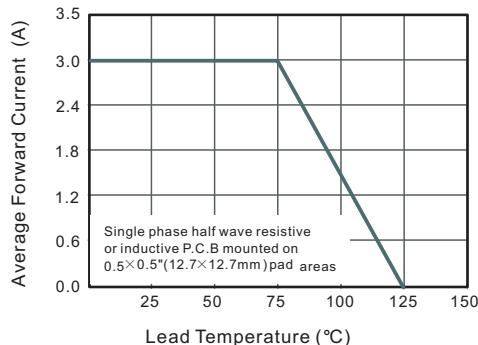
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

| MDD Catalog Number  | SYMBOLS           | SS32BF | SS34BF | SS36BF      | SS38BF | SS310BF | SS315BF | SS320BF | UNITS |
|---|-------------------|--------|--------|-------------|--------|---------|---------|---------|-------|
| Maximum repetitive peak reverse voltage   | V <sub>RRM</sub>  | 20     | 40     | 60          | 80     | 100     | 150     | 200     | VOLTS |
| Maximum RMS voltage   | V <sub>RMS</sub>  | 14     | 28     | 42          | 56     | 70      | 105     | 140     | VOLTS |
| Maximum DC blocking voltage   | V <sub>DC</sub>   | 20     | 40     | 60          | 80     | 100     | 150     | 200     | VOLTS |
| Maximum average forward rectified current at TL(see fig.1)  | I <sub>(AV)</sub> | 3.0    |        |             |        |         |         | Amp     |       |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I <sub>FSM</sub>  | 80.0   |        |             | 70.0   |         |         | Amps    |       |
| Maximum instantaneous forward voltage at 3.0A   | V <sub>F</sub>    | 0.55   | 0.70   | 0.85        | 0.95   |         |         |         | Volts |
| Maximum DC reverse current TA=25°C<br>at rated DC blocking voltage TA=100°C                         | I <sub>R</sub>    | 0.5    | 5.0    | 0.3         | 3.0    |         |         |         | mA    |
| Typical junction capacitance (NOTE 1)   | C <sub>J</sub>    | 450    |        | 400         |        |         |         |         | pF    |
| Typical thermal resistance (NOTE 2)   | R <sub>θJA</sub>  |        |        | 50.0        |        |         |         |         | °C/W  |
| Operating junction temperature range  | T <sub>J</sub>    |        |        | -50 to +125 |        |         |         |         | °C    |
| Storage temperature range   | T <sub>STG</sub>  |        |        | -50 to +150 |        |         |         |         | °C    |

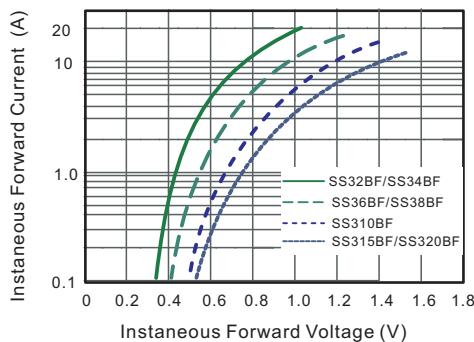
**Note:** 1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2.P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas

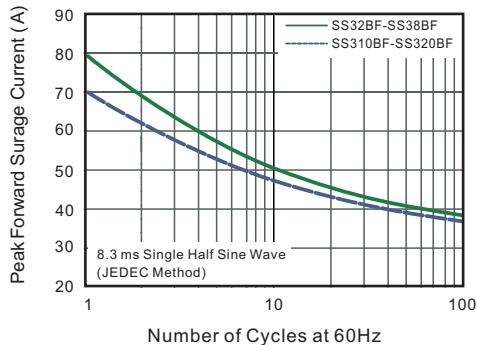
**Fig.1 Forward Current Derating Curve**



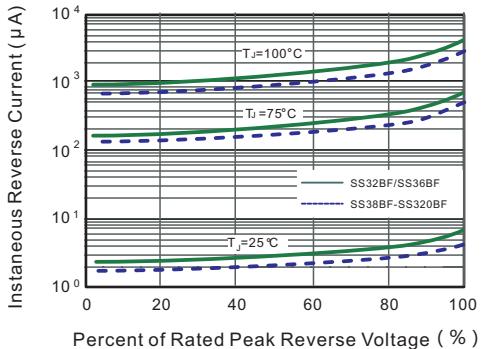
**Fig.3 Typical Forward Characteristic**



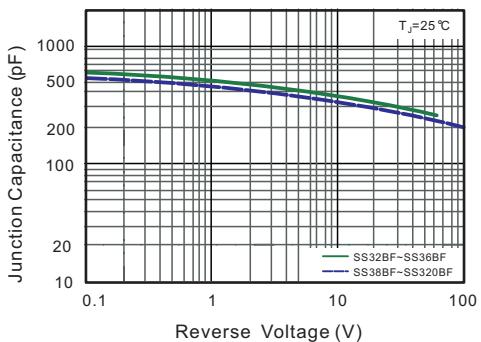
**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



**Fig.2 Typical Reverse Characteristics**



**Fig.4 Typical Junction Capacitance**



**Fig.6- Typical Transient Thermal Impedance**

