

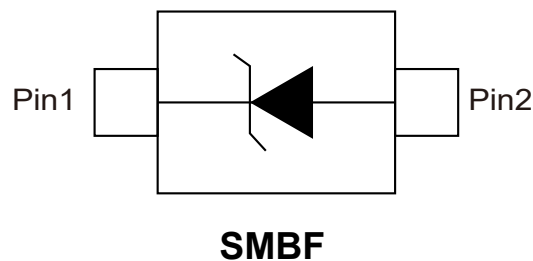
## 1.Features

- 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

## 2.Mechanical Data

- Case: JEDEC SMBF molded plastic body
- Mounting Position: Any
- Weight:57mg/0.002oz
- Terminals: leads solderable per MIL-STD-750 Method 2026

## 3.Pinning information





## 4. Maximum Ratings And Electrical Characteristics

| Parameter                                                                                           |                       | Symbol            | SS 32BF    | SS 34BF | SS 36BF | SS 38BF | SS 310BF | SS 315BF | SS 320BF | Units |
|-----------------------------------------------------------------------------------------------------|-----------------------|-------------------|------------|---------|---------|---------|----------|----------|----------|-------|
| Maximum Repetitive Peak Reverse Voltage                                                             |                       | V <sub>RRM</sub>  | 20         | 40      | 60      | 80      | 100      | 150      | 200      | V     |
| Maximum RMS Voltage                                                                                 |                       | V <sub>RMS</sub>  | 14         | 28      | 42      | 56      | 70       | 105      | 140      | V     |
| Maximum DC Blocking Voltage                                                                         |                       | V <sub>DC</sub>   | 20         | 40      | 60      | 80      | 100      | 150      | 200      | V     |
| Maximum average forward rectified current at T <sub>L</sub> (see fig.1)                             |                       | I <sub>(AV)</sub> | 3          |         |         |         |          |          |          | A     |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed on rated load (JEDEC Method) |                       | I <sub>FSM</sub>  | 80         |         |         | 70      |          |          |          | A     |
| Maximum instantaneous forward voltage at 3A                                                         |                       | V <sub>F</sub>    | 0.55       |         | 0.7     | 0.85    |          | 0.95     |          | V     |
| Maximum DC Reverse Current<br>at Rated DC Reverse Voltage                                           | T <sub>A</sub> =25°C  | I <sub>R</sub>    | 0.5        |         |         | 0.3     |          |          |          | mA    |
|                                                                                                     | T <sub>A</sub> =100°C |                   | 5          |         |         | 3       |          |          |          | mA    |
| Typical Junction Capacitance (Note1)                                                                |                       | C <sub>J</sub>    | 450        |         |         | 400     |          |          |          | pF    |
| Typical Thermal Resistance (Note 2)                                                                 |                       | R <sub>θJA</sub>  | 50         |         |         |         |          |          |          | °C/W  |
| Junction Temperature Range                                                                          |                       | T <sub>J</sub>    | -50 to 125 |         |         |         |          |          |          | °C    |
| Storage Temperature Range                                                                           |                       | T <sub>STG</sub>  | -50 to 150 |         |         |         |          |          |          | °C    |

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%.

Notes:

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.



## 5. Typical characteristic

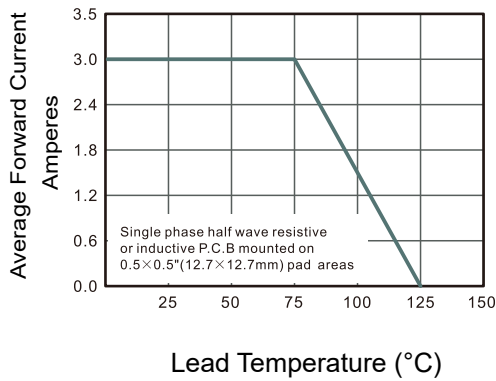


Figure 1: Forward Current Derating Curve

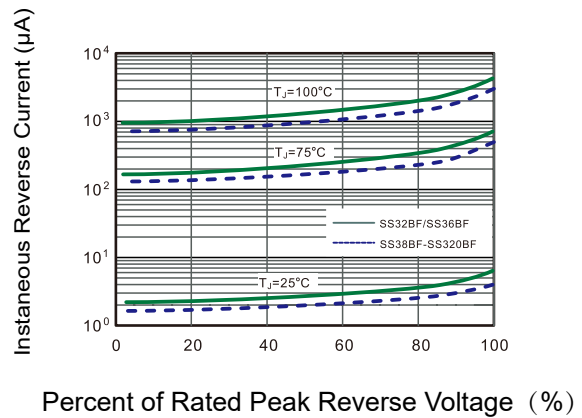


Figure 2: Typical Reverse Characteristics

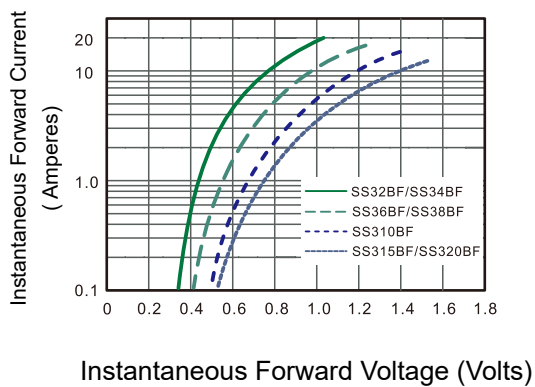


Figure 3: Typical Forward Characteristic

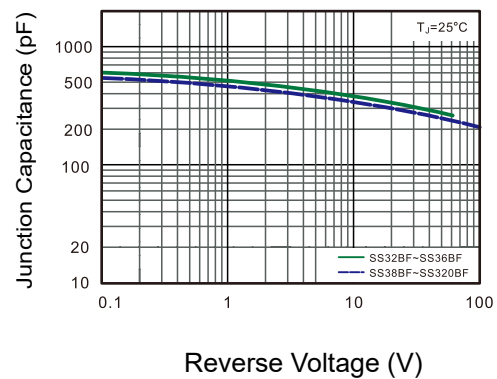


Figure 4: Typical Junction Capacitance

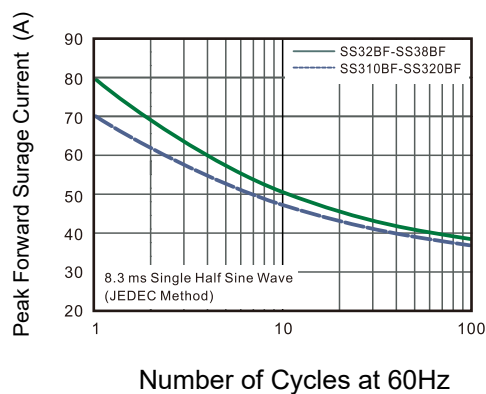


Figure 5: Maximum Non-Repetitive Peak Forward Surge Current

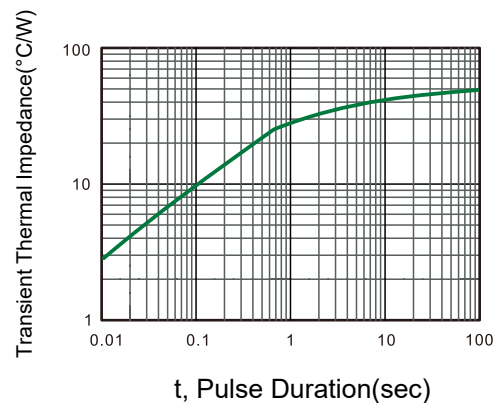
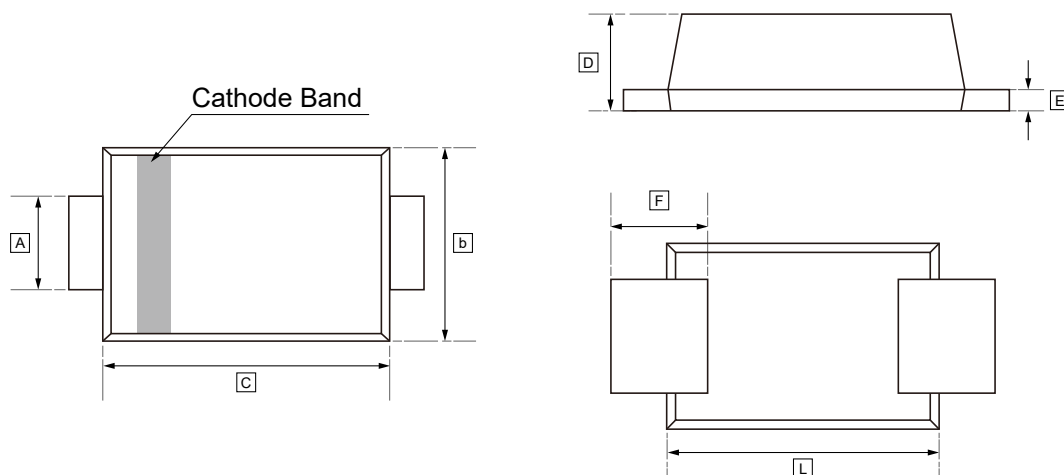


Figure 6: Typical Transient Thermal Impedance



## 6.SMBF Package Outline Dimensions

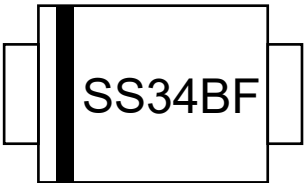


**DIMENSIONS (mm are the original dimensions)**

| Symbol | A    | b    | C   | D    | E    | F    | L    |
|--------|------|------|-----|------|------|------|------|
| Min    | 1.90 | 3.50 | 4.2 | 1.10 | 0.18 | 1.0  | 5.10 |
| Max    | 2.20 | 3.70 | 4.4 | 1.30 | 0.26 | 1.30 | 5.5  |



7 .Ordering information



| Order Code  | Marking | Package | Base QTY | Delivery Mode |
|-------------|---------|---------|----------|---------------|
| UMW SS32BF  | SS32BF  | SMBF    | 3000     | Tape and reel |
| UMW SS34BF  | SS34BF  | SMBF    | 3000     | Tape and reel |
| UMW SS36BF  | SS36BF  | SMBF    | 3000     | Tape and reel |
| UMW SS38BF  | SS38BF  | SMBF    | 3000     | Tape and reel |
| UMW SS310BF | SS310BF | SMBF    | 3000     | Tape and reel |
| UMW SS315BF | SS315BF | SMBF    | 3000     | Tape and reel |
| UMW SS320BF | SS320BF | SMBF    | 3000     | Tape and reel |



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