



®

# SS32BF THRU SS320BF

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

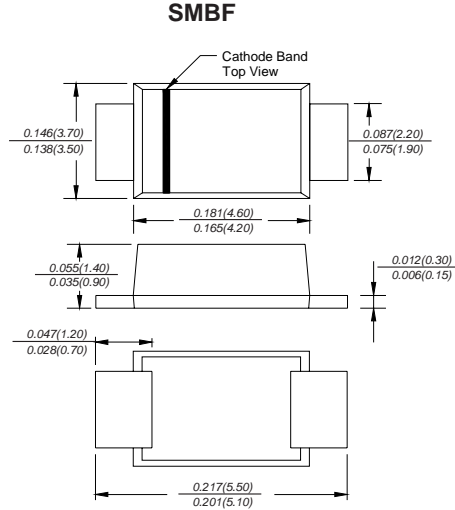
Reverse Voltage - 20 to 200 Volts Forward Current - 3.0 Amperes

### FEATURES

The plastic package carries Underwriters Laboratory Flammability Classification 94V-0  
 For surface mounted applications  
 Metal silicon junction, majority carrier conduction  
 Low power loss, high efficiency  
 Built-in strain relief, ideal for automated placement  
 High forward surge current capability  
 High temperature soldering guaranteed:  
 260°C/10 seconds at terminals

### MECHANICAL DATA

**Case:** SMBF molded plastic body  
**Terminals:** leads solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 0.002 ounce, 0.057 grams



Dimensions in inches and (millimeters)

### 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%.

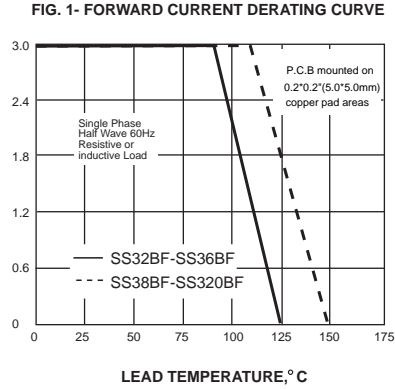
|   | SYMBOLS         | SS32BF      | SS33BF | SS34BF | SS35BF | SS36BF | SS38BF      | SS310BF | SS315BF | SS320BF | UNITS                     |                  |
|---|-----------------|-------------|--------|--------|--------|--------|-------------|---------|---------|---------|---------------------------|------------------|
| Maximum repetitive peak reverse voltage   | $V_{RRM}$       | 20          | 30     | 40     | 50     | 60     | 80          | 100     | 150     | 200     | V                         |                  |
| Maximum RMS voltage   | $V_{RMS}$       | 14          | 21     | 28     | 35     | 42     | 56          | 70      | 105     | 150     | V                         |                  |
| Maximum DC blocking voltage   | $V_{DC}$        | 20          | 30     | 40     | 50     | 60     | 80          | 100     | 150     | 200     | V                         |                  |
| Maximum average forward rectified current at $T_L$ (see fig. 1)   | $I_{(AV)}$      | 3.0         |        |        |        |        |             |         |         |         | A                         |                  |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed on rated load                            | $I_{FSM}$       | 70.0        |        |        |        |        |             |         |         |         | A                         |                  |
| Maximum instantaneous forward voltage at 3.0A   | $V_F$           | 0.55        |        | 0.70   |        | 0.85   |             | 0.95    |         |         | V                         |                  |
| Maximum DC reverse current<br>at rated DC blocking voltage<br>$T_A=25^\circ\text{C}$<br>$T_A=100^\circ\text{C}$ | $I_R$           | 0.5         |        |        |        | 0.2    |             |         |         |         | mA                        |                  |
| Typical junction capacitance (NOTE 1)   | $C_J$           | 450         |        |        |        | 400    |             |         |         |         | pF                        |                  |
| Typical thermal resistance (NOTE 2)   | $R_{\theta JA}$ | 65.0        |        |        |        |        |             |         |         |         | $^\circ\text{C}/\text{W}$ |                  |
| Operating junction temperature range  | $T_J$           | -55 to +125 |        |        |        |        | -55 to +150 |         |         |         |                           | $^\circ\text{C}$ |
| Storage temperature range   | $T_{STG}$       | -55 to +150 |        |        |        |        |             |         |         |         | $^\circ\text{C}$          |                  |

**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

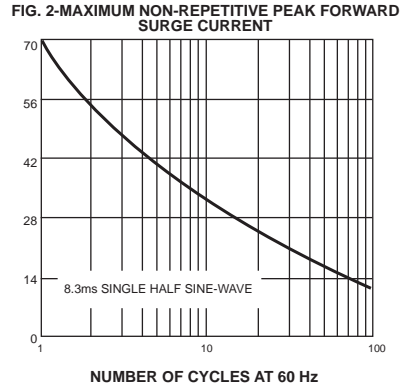


# RATINGS AND CHARACTERISTIC CURVES SS32BF THRU SS320BF

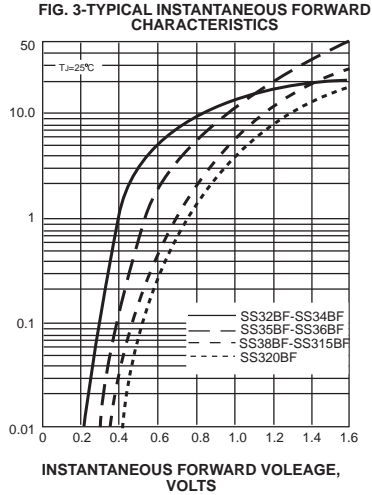
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES



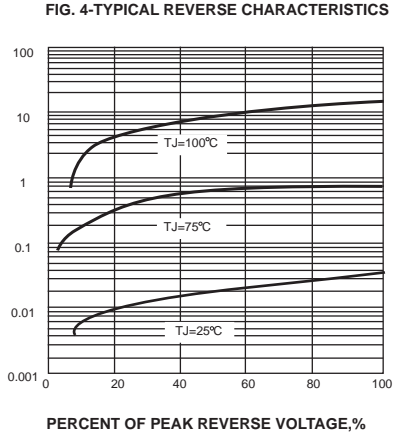
PEAK FORWARD SURGE CURRENT, AMPERES



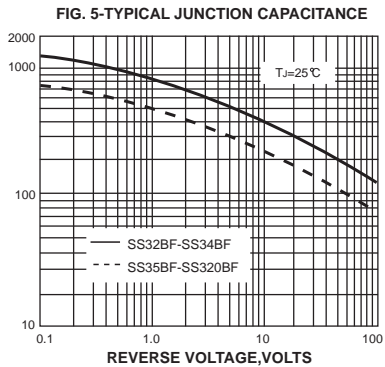
INSTANTANEOUS FORWARD CURRENT, AMPERES



INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES



JUNCTION CAPACITANCE, pF



TRANSIENT THERMAL IMPEDANCE, °C/W

