

FEATURES

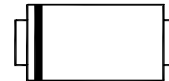
- Glass Passivated Die Construction
- Low reverse leakage
- Low Forward Voltage Drop and High Current Capability
- Ideally Suited for Automated Assembly
- Plastic Material: UL Flammability Classification Rating 94V-0



SMBF

MECHANICAL DATA

- Case: SMBF Molded plastic
- Terminals: Pure tin plated, lead free
- Polarity: Indicated by cathode band
- Weight: 57mg (approx.)



Cathode

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

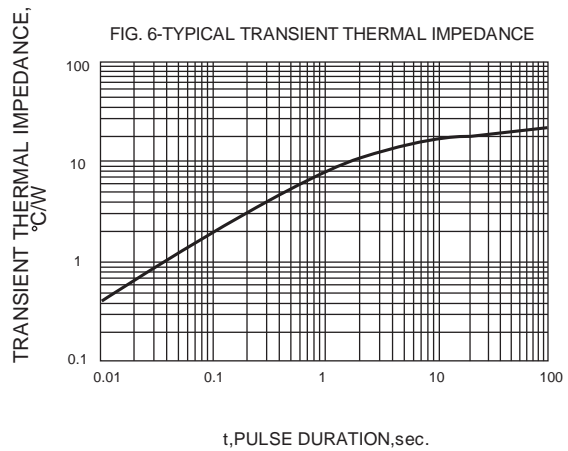
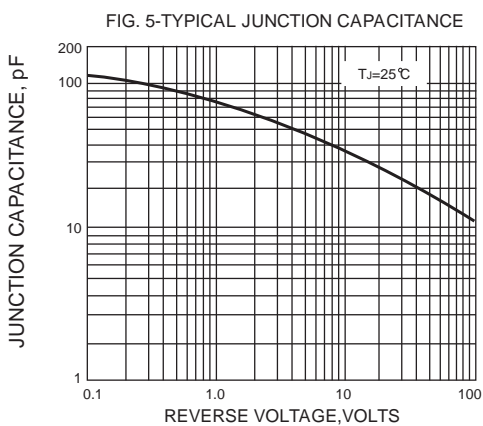
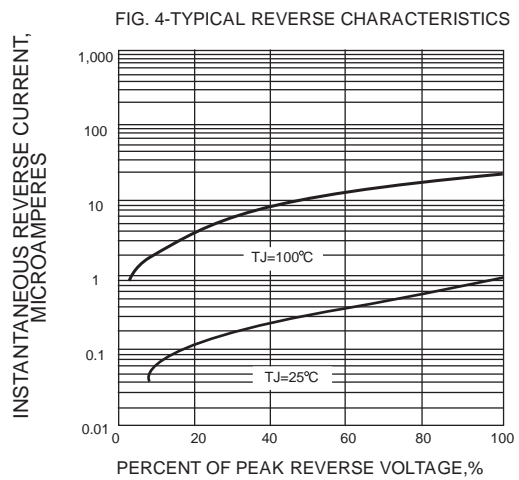
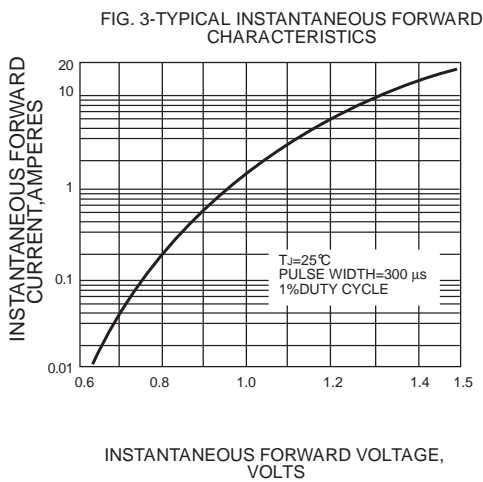
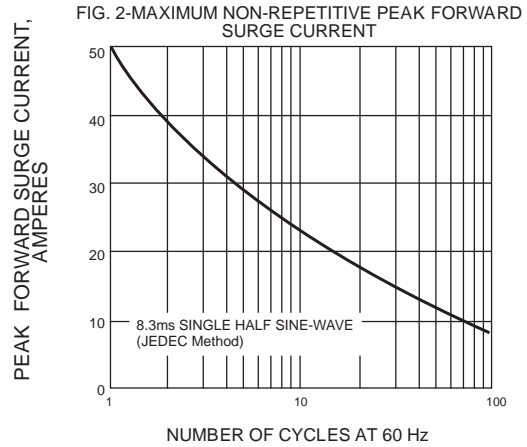
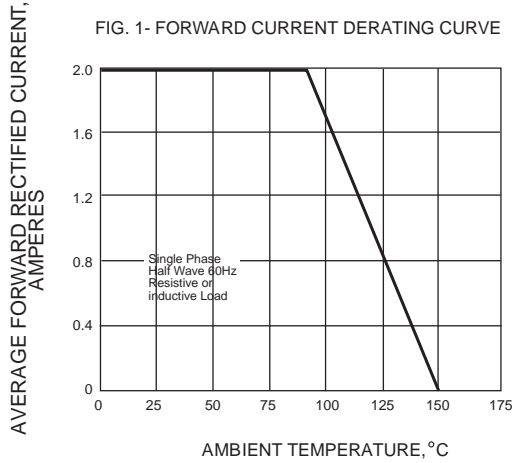
| Parameter | Symbol | RS2A BF | RS2B BF | RS2D BF | RS2G BF | RS2J BF | RS2K BF | RS2M BF | Unit | |
|---|-----------------|-----------------------|------------|------------|------------|------------|------------|------------|----------------------|---------------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V | |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V | |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V | |
| Maximum Average Forward Rectified Current at $T_A = 75\text{ °C}$ | $I_{F(AV)}$ | 2.0 | | | | | | | A | |
| Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC) | I_{FSM} | 50.0 | | | | | | | A | |
| Maximum Instantaneous Forward Voltage at 1 A | V_F | 1.3 | | | | | | | V | |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | I_R | $T_A = 25\text{ °C}$ | | | | | | | 5.0 | μA |
| | | $T_A = 100\text{ °C}$ | | | | | | | 100.0 | |
| Maximum reverse recovery time (NOTE1) | t_{rr} | 150 | | | | 250 | 500 | | nS | |
| Typical Junction Capacitance (NOTE2) | C_J | 40.0 | | | | | | | pF | |
| Maximum Thermal Resistance (NOTE3) | $R_{\theta JA}$ | 65 | | | | | | | $^{\circ}\text{C/W}$ | |
| Operating and Storage Temperature Range | $T_{J, TS}$ | - 50 to + 150 | | | | | | | $^{\circ}\text{C}$ | |

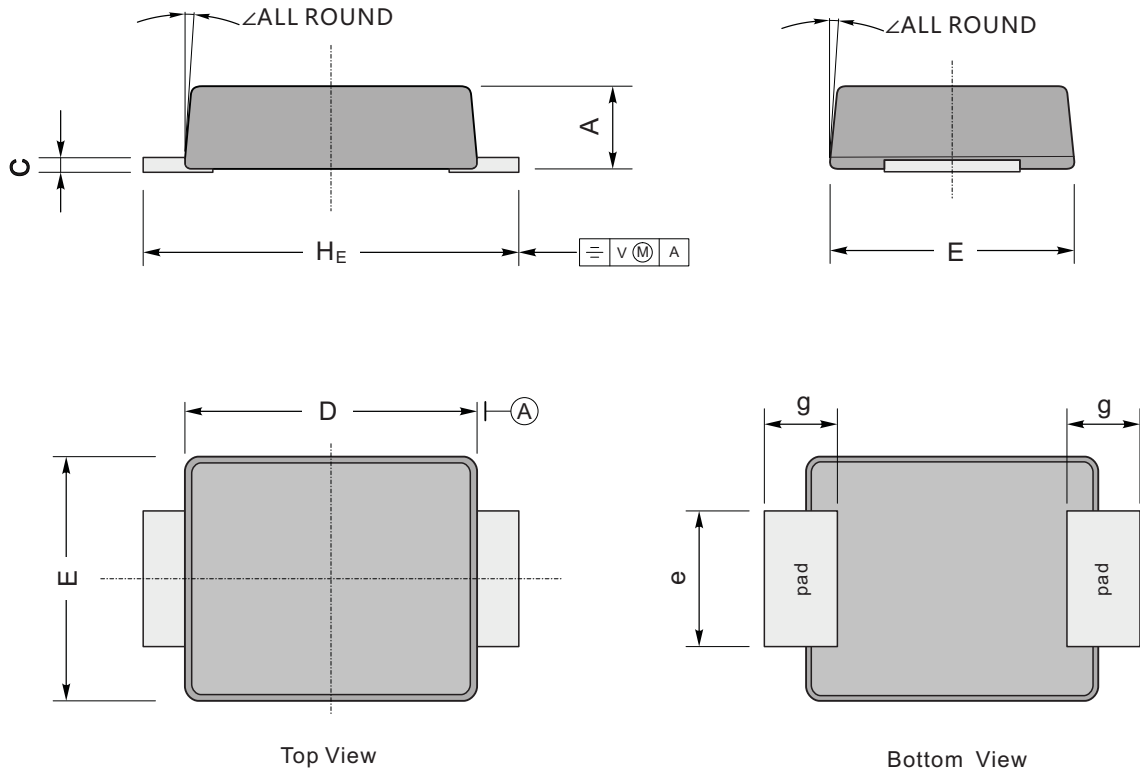
Note: 1.Reverse recovery condition $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$

2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

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

Typical Characteristics



SMBF Package Outline Dimensions


| UNIT | | A | C | D | E | H_E | e | g | \angle |
|------|-----|-----|------|-----|-----|-------|-----|-----|----------|
| mm | max | 1.3 | 0.26 | 4.4 | 3.7 | 5.5 | 2.2 | 1.0 | 9° |
| | min | 1.1 | 0.18 | 4.2 | 3.5 | 5.1 | 1.9 | | |
| mil | max | 51 | 10 | 173 | 146 | 216 | 86 | 40 | |
| | min | 43 | 7 | 165 | 138 | 200 | 75 | | |