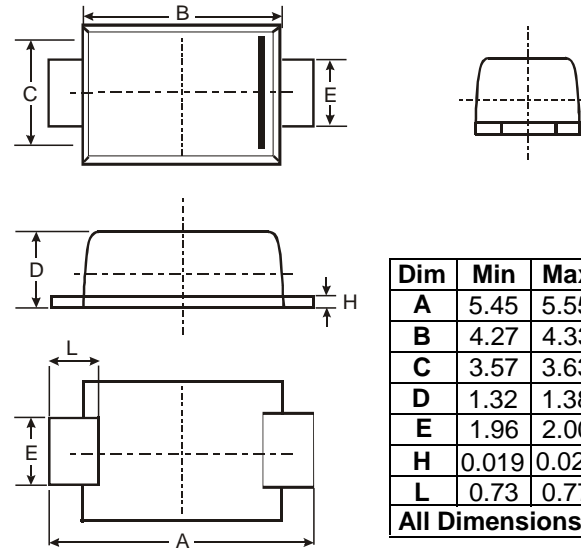


CURRENT 1.0 Ampere
 VOLTAGE RANG 50 to 1000 Volts

S1ABF THRU S1MBF

S M B F

- Glass passivated junction
- Low profile package
- Built-in strain relief, ideal for automated placement
- Plastic package has underwrites laboratory flammability Classification 94V-0
- High temperature soldering guaranteed: 250 /10 second at terminals



| Dim | Min | Max | Typ |
|-----------------------------|-------|-------|------|
| A | 5.45 | 5.55 | 5.50 |
| B | 4.27 | 4.33 | 4.30 |
| C | 3.57 | 3.63 | 3.60 |
| D | 1.32 | 1.38 | 1.35 |
| E | 1.96 | 2.00 | 1.98 |
| H | 0.019 | 0.021 | 0.20 |
| L | 0.73 | 0.77 | 0.75 |
| All Dimensions in mm | | | |

MECHANICAL DATA

- Case: JEDED SMBF molded plastic
- Terminals: Plated axial lead solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end
- Mounting position: Any
- Weight: 0.002ounce, 0.090 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

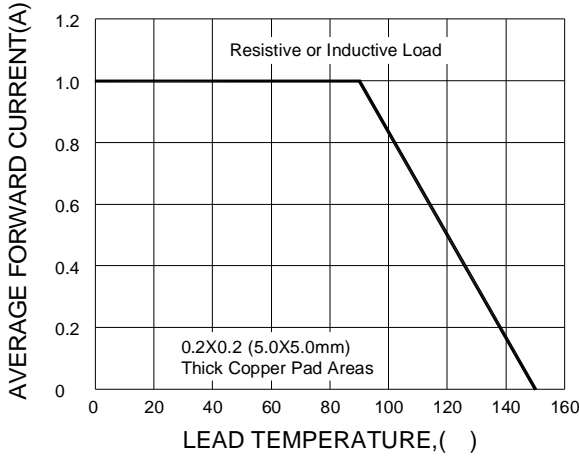
| | SYMBOLS | S1A | S1B | S1D | S1G | S1J | S1K | S1M | UNIT |
|---|-------------|-------|-----|-----|-----|-----|-----|------|-------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum Average Forward Rectified Current (see Fig.1) | $I_{F(AV)}$ | 1.0 | | | | | | | Amps |
| Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method) $T_{iL}=90$ | I_{FSM} | 30 | | | | | | | Amps |
| Maximum Instantaneous Forward Voltage at 1.0A | V_F | 1.1 | | | | | | | Volts |
| Maximum DC Reverse Current at rated DC Blocking Voltage at | $T_A = 25$ | 5.0 | | | | | | | A |
| | $T_A = 125$ | 50 | | | | | | | |
| Typical Junction Capacitance (NOTE 1) | R_{0JA} | 50 | | | | | | | /W |
| | R_{0JL} | 90 | | | | | | | |
| Typical Thermal Resistance (NOTE 2) | t_{tr} | 1.8 n | | | | | | | |

CURRENT 1.0 Ampere
 VOLTAGE RANG 50 to 1000 Volts

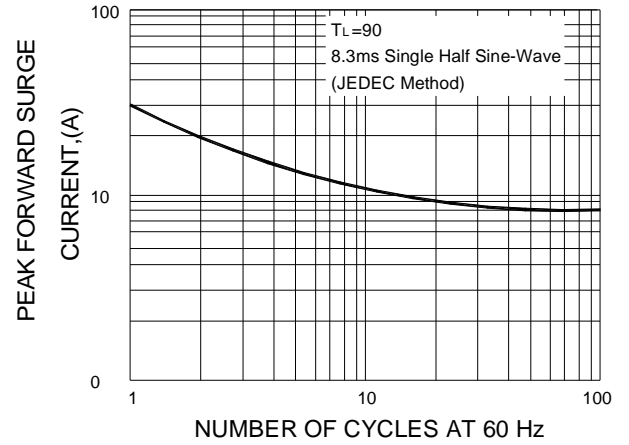
S1ABF THRU S1MBF

RATING AND CHARACTERISTIC CURVES S1A Thru S1M

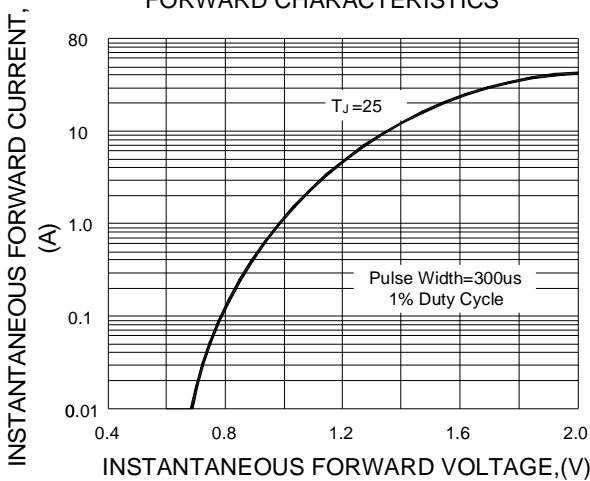
F1G.1-FORWARD CURRENT DERATING CURVE



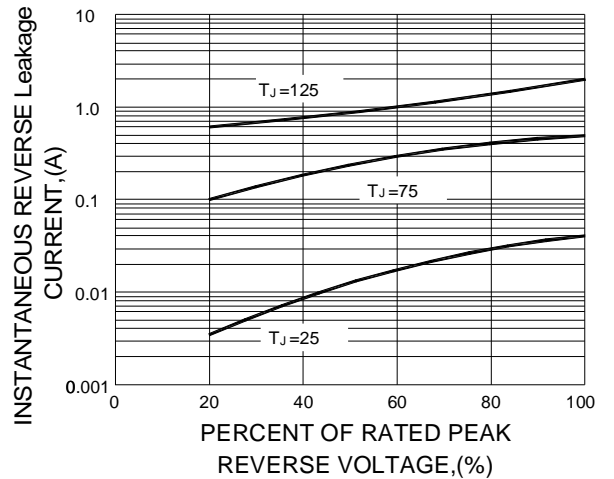
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



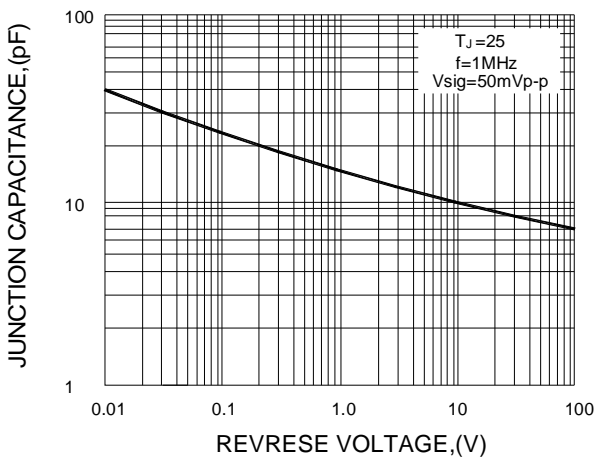
F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4-TYPICAL REVERSE CHARACTERISTICS



F1G.5-TYPICAL JUNCTION CAPACITANCE



F1G.6-TRANSIENT THERMAL IMPEDANCE

