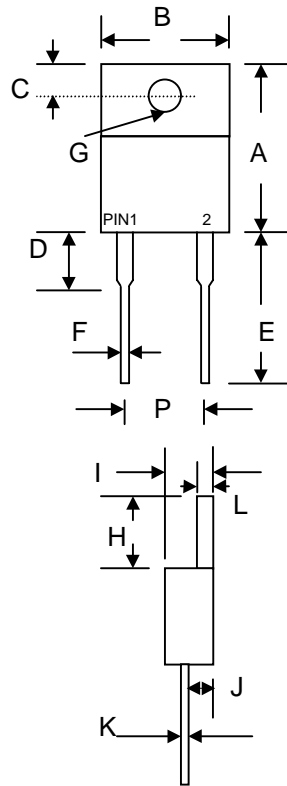


Features

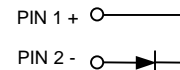
- Schottky Barrier Chip
- Guard Ring for Transient Protection
- High Current Capability, Low Forward
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-O

Mechanical Data

- Case: ITO-220A Full Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 2.24 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



| ITO-220A | | |
|----------------------|--------|--------|
| Dim | Min | Max |
| A | 14.9 | 15.1 |
| B | — | 10.5 |
| C | 2.62 | 2.87 |
| D | 3.56 | 4.06 |
| E | 13.46 | 14.22 |
| F | 0.68 | 0.94 |
| G | 3.74 Ø | 3.91 Ø |
| H | 5.84 | 6.86 |
| I | 4.44 | 4.70 |
| J | 2.54 | 2.79 |
| K | 0.35 | 0.64 |
| L | 1.14 | 1.40 |
| P | 4.95 | 5.20 |
| All Dimensions in mm | | |



Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| Characteristic | Symbol | SB 1020F | SB 1030F | SB 1040F | SB 1050F | SB 1060F | SB 1080F | SB 10100F | Unit |
|---|-----------------|-------------|----------|----------|----------|----------|----------|-----------|------------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | V |
| Working Peak Reverse Voltage | V_{RWM} | | | | | | | | |
| DC Blocking Voltage | V_R | | | | | | | | |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 14 | 21 | 28 | 35 | 42 | 56 | 70 | V |
| Average Rectified Output Current @ $T_C = 95^\circ\text{C}$ | I_O | 10 | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 150 | | | | | | | A |
| Forward Voltage @ $I_F = 10\text{A}$ | V_{FM} | 0.55 | | 0.75 | | 0.85 | | V | |
| Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$ | I_{RM} | 0.5 50 | | | | | | | mA |
| Typical Junction Capacitance (Note 1) | C_j | 700 | | | | | | | pF |
| Typical Thermal Resistance Junction to Case (Note 2) | $R_{\theta JC}$ | 3.5 | | | | | | | K/W |
| Operating and Storage Temperature Range | T_j, T_{STG} | -65 to +150 | | | | | | | $^\circ\text{C}$ |

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
2. Thermal resistance junction to case mounted on heatsink.

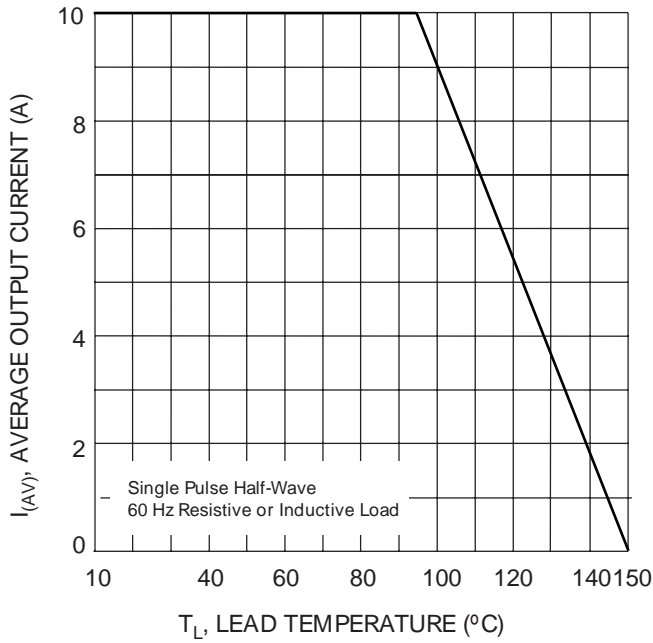


Fig. 1 Forward Current Derating Curve

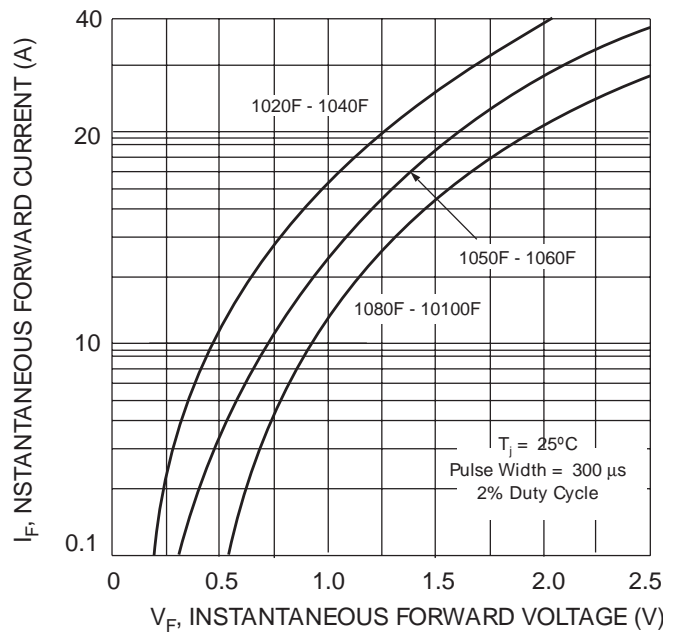


Fig. 2 Typical Forward Characteristics

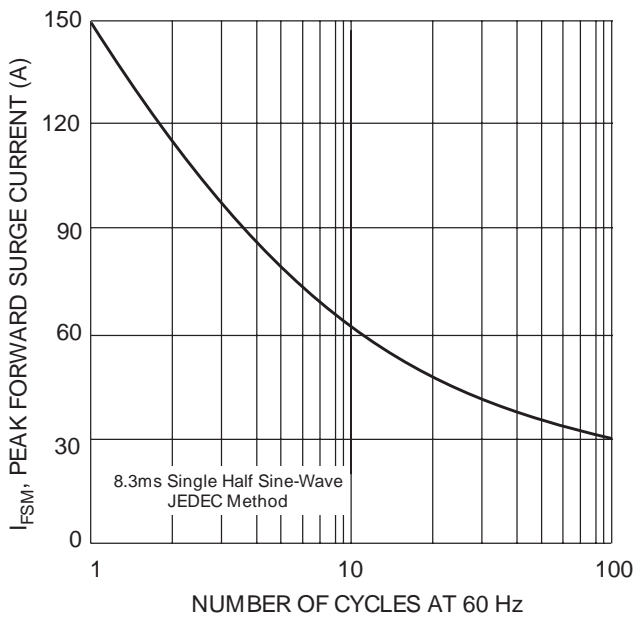


Fig. 3 Maximum Non-Repetitive Peak Fwd Surge Current

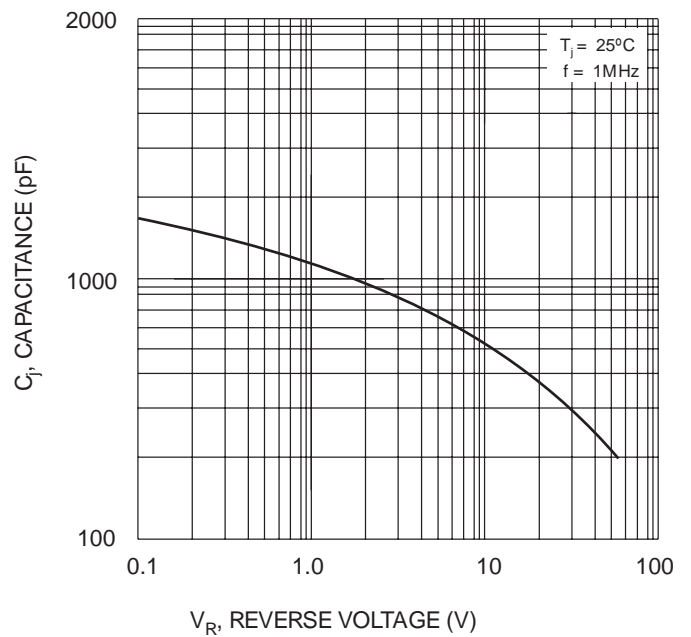


Fig. 4 Typical Junction Capacitance

ORDERING INFORMATION

| Product No. | Package Type | Shipping Quantity |
|-------------|--------------|-------------------|
| SB1020F | ITO-220A | 50 Units/Tube |
| SB1030F | ITO-220A | 50 Units/Tube |
| SB1040F | ITO-220A | 50 Units/Tube |
| SB1050F | ITO-220A | 50 Units/Tube |
| SB1060F | ITO-220A | 50 Units/Tube |
| SB1080F | ITO-220A | 50 Units/Tube |
| SB10100F | ITO-220A | 50 Units/Tube |

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

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