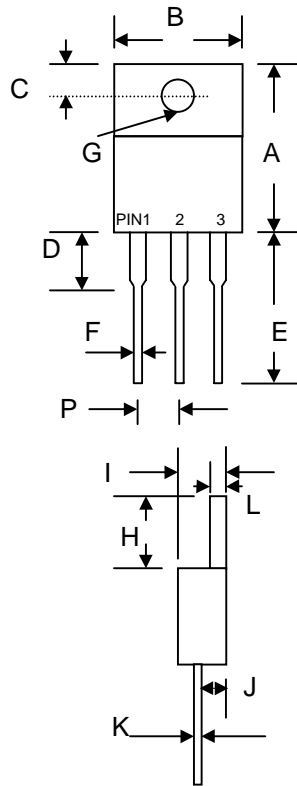


### Features

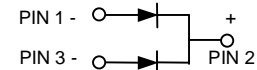
- Schottky Barrier Chip
- Guard Ring for Transient Protection
- High Current Capability, Low Forward
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-O

### Mechanical Data

- Case: ITO-220 Full Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-750, Method 2026
- Polarity: As Marked on Body
- Weight: 2.24 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



| ITO-220              |        |        |
|----------------------|--------|--------|
| 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                    | 2.41   | 2.67   |
| 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 1020FCT  | SB 1030FCT | SB 1040FCT | SB 1050FCT | SB 1060FCT | SB 1080FCT | SB 10100FCT | Unit             |
|--|---------------------------------|-------------|------------|------------|------------|------------|------------|-------------|------------------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage                             | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 20          | 30         | 40         | 50         | 60         | 80         | 100         | V                |
| 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<br>8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$                       | 150         |            |            |            |            |            |             | A                |
| Forward Voltage @ $I_F = 5.0\text{A}$  | $V_{FM}$                        | 0.55        |            | 0.75       |            | 0.85       |            | V           |                  |
| Peak Reverse Current @ $T_A = 25^\circ\text{C}$<br>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               |
| 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.

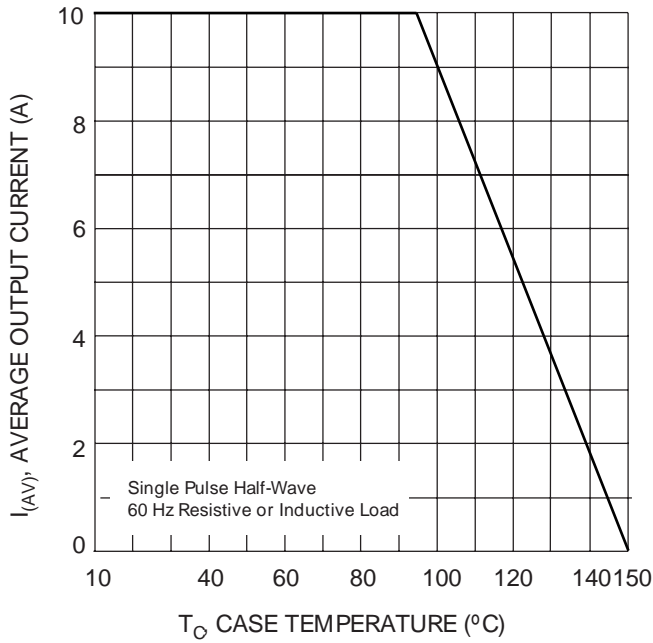


Fig. 1 Forward Current Derating Curve

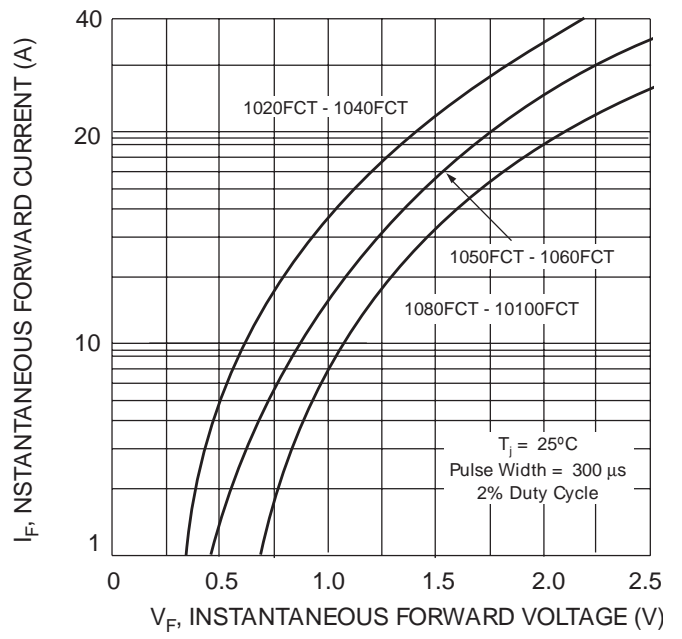


Fig. 2 Typical Forward Characteristics

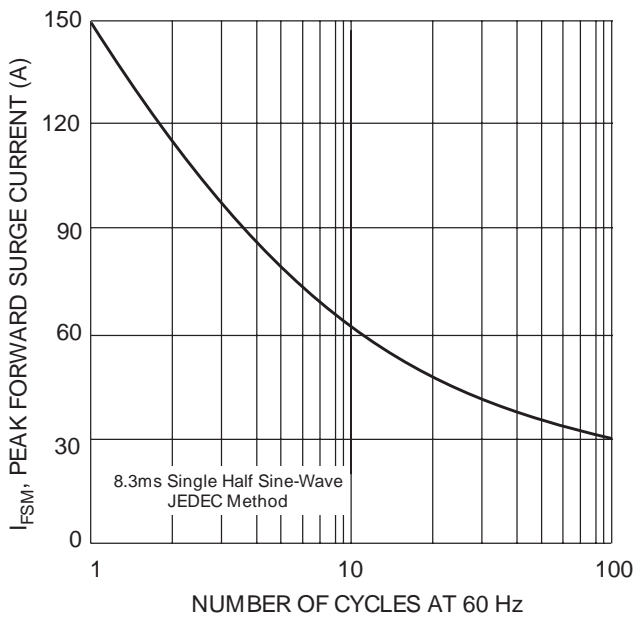


Fig. 3 Maximum Non-Repetitive Peak Fwd Surge Current

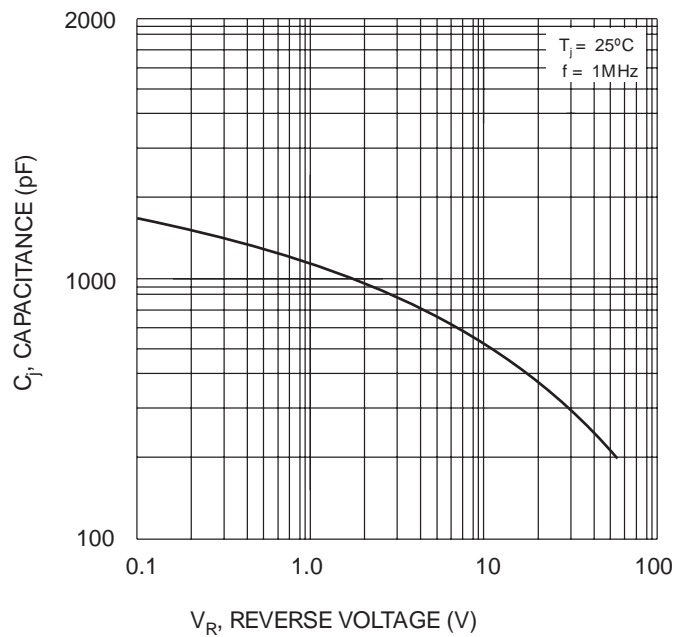


Fig. 4 Typical Junction Capacitance

## ORDERING INFORMATION

| Product No. | Package Type | Shipping Quantity |
|-------------|--------------|-------------------|
| SB1020FCT   | ITO-220      | 50 Units/Tube     |
| SB1030FCT   | ITO-220      | 50 Units/Tube     |
| SB1040FCT   | ITO-220      | 50 Units/Tube     |
| SB1050FCT   | ITO-220      | 50 Units/Tube     |
| SB1060FCT   | ITO-220      | 50 Units/Tube     |
| SB1080FCT   | ITO-220      | 50 Units/Tube     |
| SB10100FCT  | ITO-220      | 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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