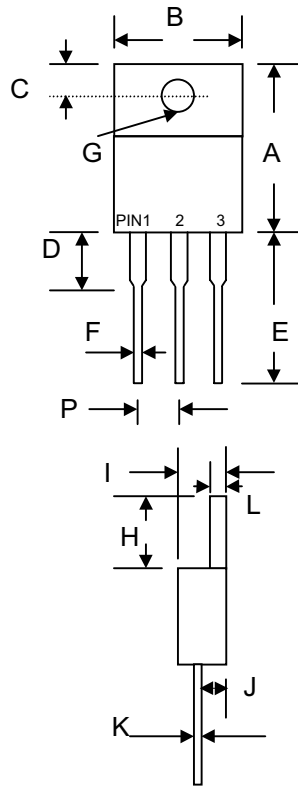


### Features

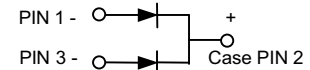
- Schottky Barrier Chip
- Guard Ring for Transient Protection
- High Current Capability, Low Forward
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-O

### Mechanical Data

- Case: TO-220 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



| TO-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 1620CT   | SB 1630CT | SB 1640CT | SB 1650CT | SB 1660CT | SB 1680CT | SB 16100CT | 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 @ $T_C = 95^\circ\text{C}$   | $I_O$          | 16          |           |           |           |           |           |            | 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 @ $I_F = 8.0\text{A}$   | $V_{FM}$       | 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<br>100  |           |           |           |           |           |            | 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.

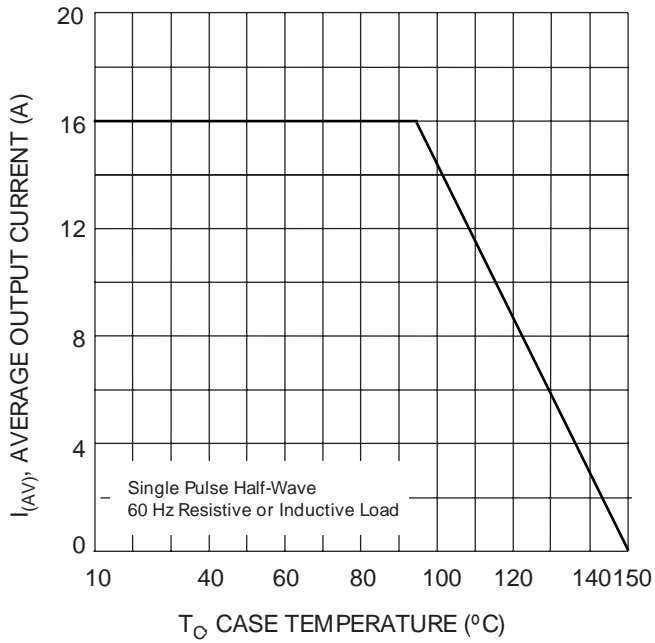


Fig. 1 Forward Current Derating Curve

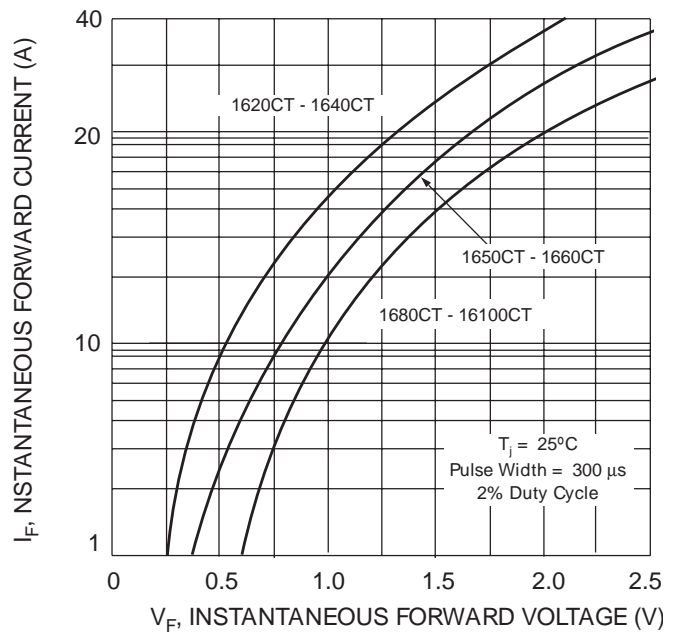


Fig. 2 Typical Forward Characteristics

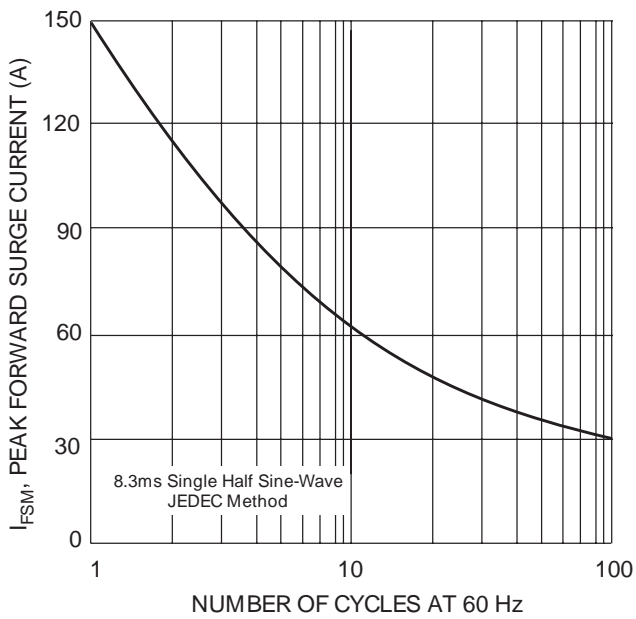


Fig. 3 Maximum Non-Repetitive Peak Fwd Surge Current

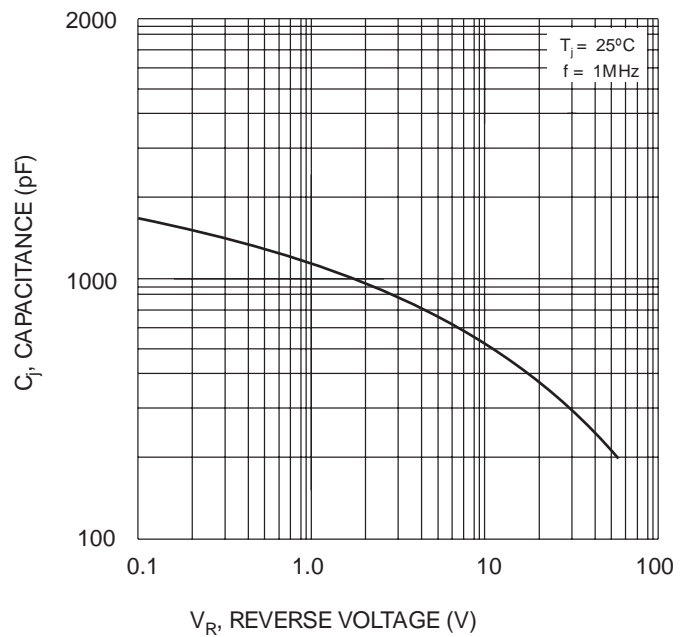


Fig. 4 Typical Junction Capacitance