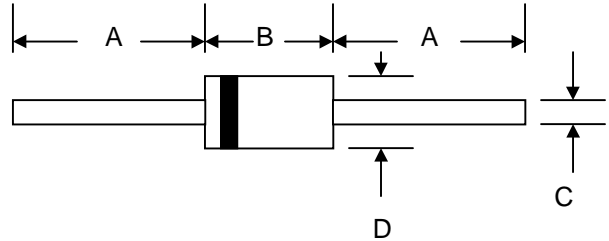


Features

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- High Current Capability
- Low Power Loss, High Efficiency
- High Surge Current Capability
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications



| DO-201AD | | |
|----------------------|------|------|
| Dim | Min | Max |
| A | 24.5 | — |
| B | 7.20 | 9.50 |
| C | 1.10 | 1.30 |
| D | 5.00 | 5.60 |
| All Dimensions in mm | | |

Mechanical Data

- Case: DO-201AD, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 1.2 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version,**

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 | SB320 | SB330 | SB340 | SB350 | SB360 | SB380 | SB3100 | SB3150 | SB3200 | Unit |
|---|-----------------|-------------|-------|-------|-------|-------|-------|------------|--------|--------|---------------------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | | | | | | | | | | V |
| Working Peak Reverse Voltage | V_{RWM} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 | |
| DC Blocking Voltage | V_R | | | | | | | | | | |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 14 | 21 | 28 | 35 | 42 | 56 | 70 | 105 | 140 | V |
| Average Rectified Output Current (Note 1) | I_O | 3.0 | | | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 80 | | | | | | | | | A |
| Forward Voltage @ $I_F = 3.0A$ | V_{FM} | 0.5 | | 0.75 | | 0.85 | | 0.92 | | | 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 20 | | | | | | 0.02 10 | | | mA |
| Typical Junction Capacitance (Note 2) | C_j | 250 | | | | | | | | | pF |
| Typical Thermal Resistance (Note 1) | $R_{\theta JA}$ | 25 | | | | | | | | | $^\circ\text{C}/\text{W}$ |
| Operating and Storage Temperature Range | T_J, T_{STG} | -55 to +150 | | | | | | | | | $^\circ\text{C}$ |

Note: 1. Valid provided that leads are kept at ambient temperature at a distance of 9.5mm from the case.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

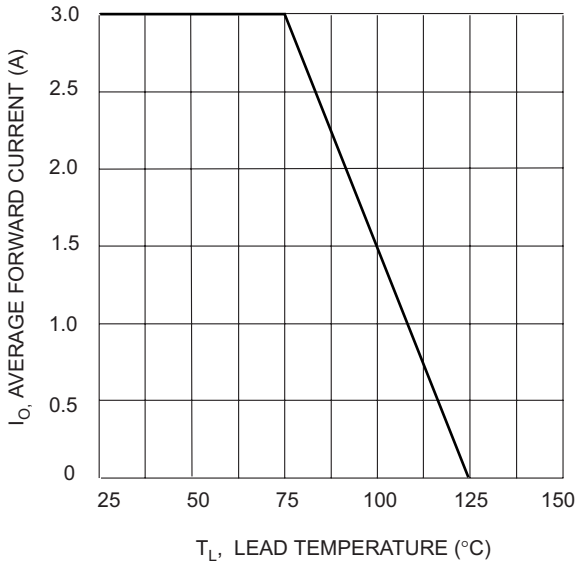


Fig. 1 Forward Current Derating Curve

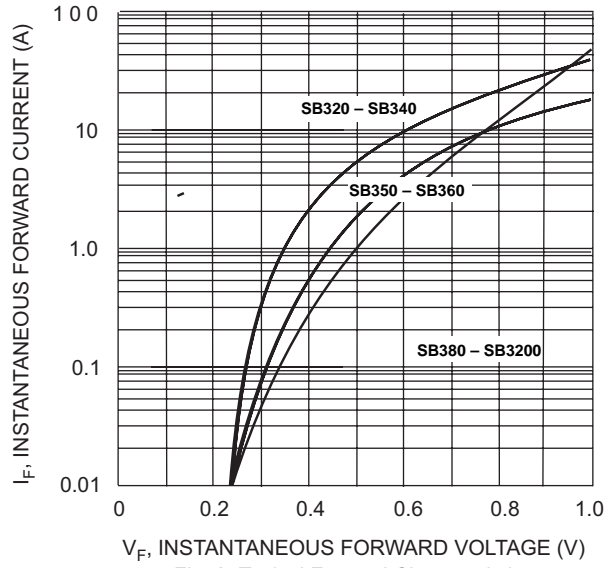


Fig. 2 Typical Forward Characteristics

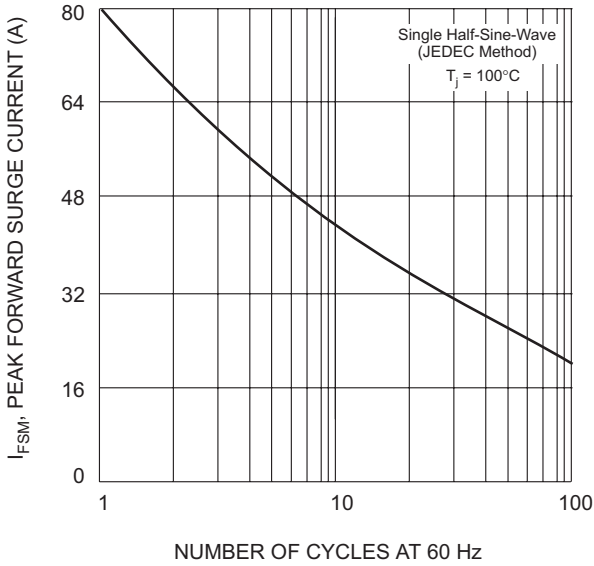


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

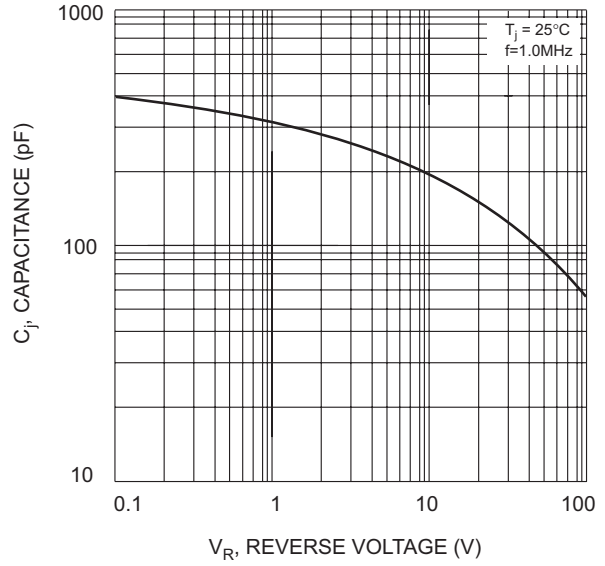


Fig. 4 Typical Junction Capacitance

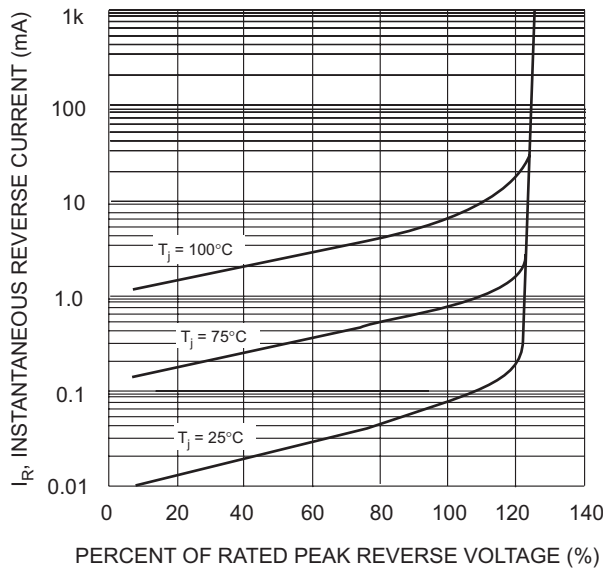


Fig. 5 Typical Reverse Characteristics