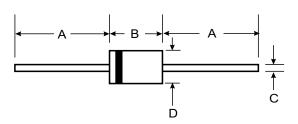


# SB370 - SB3100

## 3.0A SCHOTTKY BARRIER RECTIFIER

#### **Features**

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- Low Power Loss, High Efficiency
- High Surge Capability
- High Current Capability and Low Forward Voltage Drop
- Surge Overload Rating to 80A Peak
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications
- Plastic Material UL Flammability Classification 94V-0



| DO-201AD             |       |      |  |  |  |
|----------------------|-------|------|--|--|--|
| Dim                  | Min   | Max  |  |  |  |
| Α                    | 25.40 |      |  |  |  |
| В                    | 7.20  | 9.50 |  |  |  |
| С                    | 1.20  | 1.30 |  |  |  |
| D                    | 4.80  | 5.30 |  |  |  |
| All Dimensions in mm |       |      |  |  |  |

## **Mechanical Data**

Case: Molded Plastic

 Terminals: Plated Leads Solderable per MIL-STD-202, Method 208

Polarity: Cathode Band Weight: 1.1 grams (approx.) Mounting Position: Any

Marking: Type Number

# Maximum Ratings and Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

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

| Characteristic  | Symbol   | SB370       | SB380 | SB390 | SB3100 | Unit |
|---|--|-------------|-------|-------|--------|------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage                                | V <sub>RRM</sub><br>V <sub>RWM</sub><br>V <sub>R</sub> | 70          | 80    | 90    | 100    | V    |
| RMS Reverse Voltage   | V <sub>R(RMS)</sub>                                    | 49          | 56    | 63    | 70     | ٧    |
| Average Rectified Output Current (Note 1) @ $T_L = 80^{\circ}C$   | I <sub>O</sub>   | 3.0         |       |       | А      |      |
| Non-Repetitive Peak Forward Surge Current 8.3ms<br>single half sine-wave superimposed on rated load<br>(JEDEC Method) |  | 80          |       |       | А      |      |
| Forward Voltage @ I <sub>F</sub> = 3.0A   | V <sub>FM</sub>  | 0.79        |       |       | ٧      |      |
| Peak Reverse Current @ T <sub>A</sub> = 25°C at Rated DC Blocking Voltage @ T <sub>A</sub> = 100°C                    |  | 0.5<br>20   |       |       | mA     |      |
| Typical Junction Capacitance (Note 2)   |  | 250         |       |       |        | pF   |
| Typical Thermal Resistance Junction to Ambient  |  | 20          |       |       |        | K/W  |
| Operating and Storage Temperature Range   |  | -65 to +150 |       |       | °C     |      |

Notes: 1. Measured 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 DC.

