



# SB320 thru SB360

Schottky Barrier Rectifiers  
Reverse Voltage 20 to 60 Volts    Forward Current 3.0 Amperes

## Features

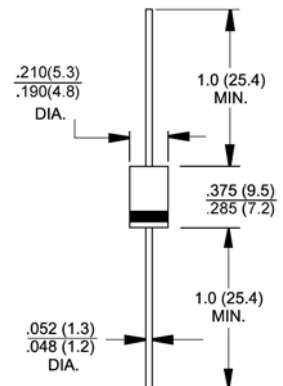
- ◆ Metal-Semiconductor junction with guard ring
- ◆ Epitaxial construction
- ◆ Low forward voltage drop
- ◆ High current capability
- ◆ The plastic material carries UL recognition 94V-0
- ◆ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications



**DO-201AD**

## Mechanical Data

- ◆ Case : JEDEC DO-201AD molded plastic
- ◆ Polarity : Color band denotes cathode
- ◆ Weight : 0.041 ounce, 1.15 grams
- ◆ Mounting position : Any



**Dimensions in inches and (millimeters)**

## Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

| Parameter  | Symbols         | SB320   | SB330 | SB340 | SB350       | SB360 | Units |
|--|-----------------|---|-------|-------|-------------|-------|-------|
| Maximum repetitive peak reverse voltage  | $V_{RRM}$       | 20  | 30    | 40    | 50          | 60    | Volts |
| Maximum RMS voltage  | $V_{RMS}$       | 14  | 21    | 28    | 35          | 42    | Volts |
| Maximum DC blocking voltage  | $V_{DC}$        | 20  | 30    | 40    | 50          | 60    | Volts |
| Maximum average forward rectified current<br>.375" (9.5mm) lead lengths (See Fig.1)  | $I_{AV}$        | 3.0   |       |       |             |       | Amps  |
| Peak forward surge current 8.3ms single half sine-wave<br>superimposed on rated load | $I_{FSM}$       | 100.0   |       |       |             |       | Amps  |
| Maximum forward voltage at 3.0A DC   | $V_F$           | 0.50  |       |       | 0.74        |       | Volts |
| Maximum DC reverse current<br>at rated DC blocking voltage                           | $I_R$           | @ $T_J=25^\circ\text{C}$<br>@ $T_J=100^\circ\text{C}$ |       |       | 0.5<br>20.0 |       | mA    |
| Typical thermal resistance (Note 1)  | $R_{\theta JL}$ | 20  |       |       | 10          |       | °C/W  |
| Typical junction capacitance (Note 2)  | $C_J$           | 250   |       |       |             |       | pF    |
| Operating junction temperature range   | $T_J$           | -55 to +125   |       |       |             |       | °C    |
| Storage temperature range  | $T_{STG}$       | -55 to +150   |       |       |             |       | °C    |

- Notes:**
1. Thermal Resistance Junction to Lead.
  2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

# RATINGS AND CHARACTERISTIC CURVES

( $T_A = 25^\circ\text{C}$  unless otherwise noted)

