

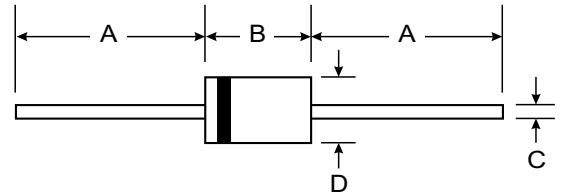
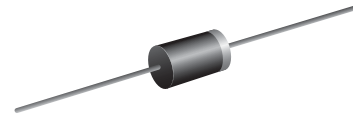
**VOLTAGE RANGE: 200V**  
**CURRENT: 3.0 A**

### Features

- Metal silicon junction, majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability

### Mechanical Data

- Case : DO-201AD Molded plastic
- Epoxy : UL94V-O rate flame retardant
- Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- Polarity : Color band denotes cathode end
- Mounting position : Any
- Weight : 1.21 grams



| DO-201AD             |       |      |
|----------------------|-------|------|
| Dim                  | Min   | Max  |
| A                    | 25.40 | —    |
| B                    | 7.20  | 9.50 |
| C                    | 1.20  | 1.30 |
| D                    | 4.80  | 5.30 |
| All Dimensions in mm |       |      |

### 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            | VSB3200     | Unit  |
|---|-------------------|-------------|-------|
| Maximum repetitive peak reverse voltage   | V <sub>RRM</sub>  | 200         | Volts |
| Maximum RMS voltage   | V <sub>RMS</sub>  | 140         | Volts |
| Maximum DC blocking voltage   | V <sub>DC</sub>   | 200         | Volts |
| Maximum average forward rectified current<br>0.375" (9.5mm) lead length(see fig.1)                          | I <sub>(AV)</sub> | 3.0         | Amps  |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed on<br>rated load (JEDEC Method)      | I <sub>FSM</sub>  | 80.0        | Amps  |
| Maximum instantaneous forward voltage at 3.0A   | V <sub>F</sub>    | 0.95        | Volts |
| Maximum DC reverse current<br>T <sub>A</sub> =25°C<br>at rated DC blocking voltage<br>T <sub>A</sub> =100°C | I <sub>R</sub>    | 0.2<br>2.0  | mA    |
| Typical junction capacitance (NOTE 1)   | C <sub>J</sub>    | 160         | pF    |
| Typical thermal resistance (NOTE 2)   | R <sub>θJA</sub>  | 40.0        | °C/W  |
| Operating junction temperature range  | T <sub>J</sub>    | -65 to +150 | °C    |
| Storage temperature range   | T <sub>STG</sub>  | -65 to +150 | °C    |

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted



**RATINGS AND CHARACTERISTICS CURVES** ( $T_A = 25\text{ }^\circ\text{C}$  unless otherwise noted)

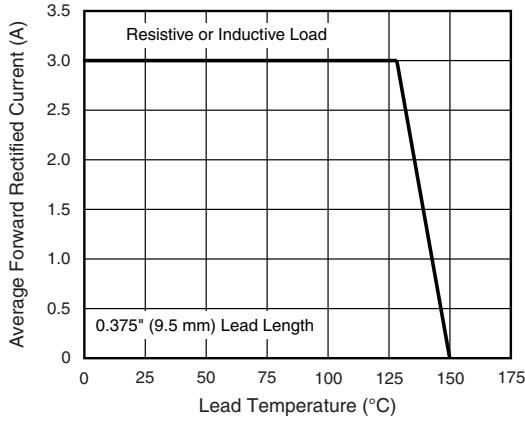


Fig. 1 - Maximum Forward Current Derating Curve

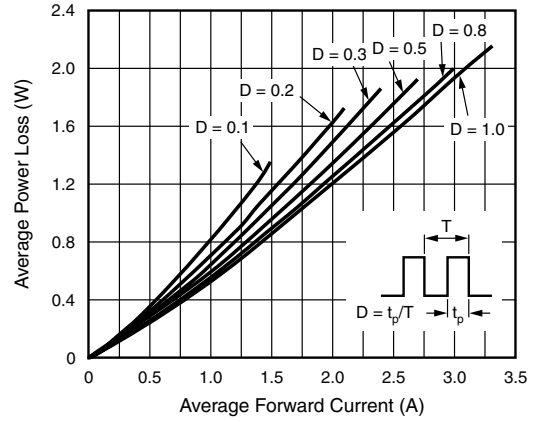


Fig. 2 - Forward Power Loss Characteristics

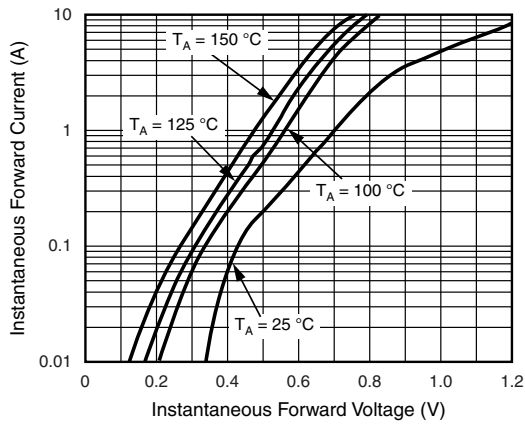


Fig. 3 - Typical Instantaneous Forward Characteristics

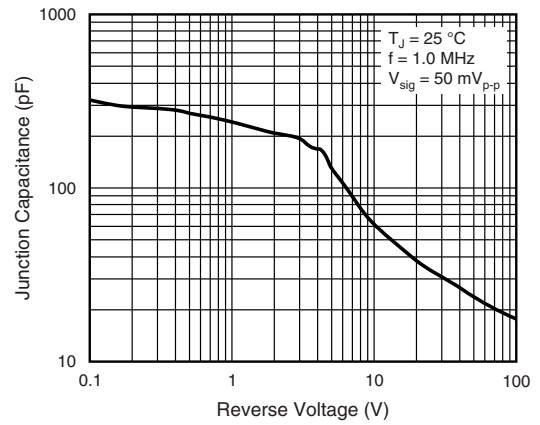


Fig. 5 - Typical Junction Capacitance

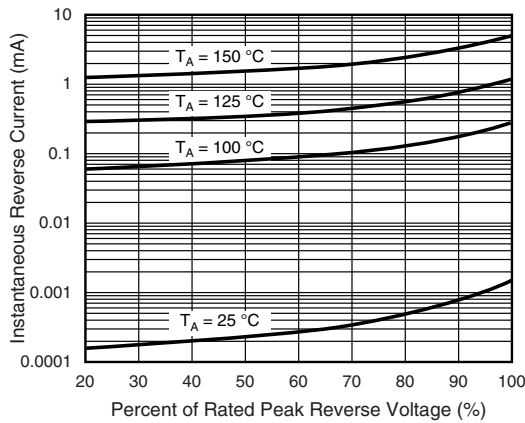


Fig. 4 - Typical Reverse Characteristics

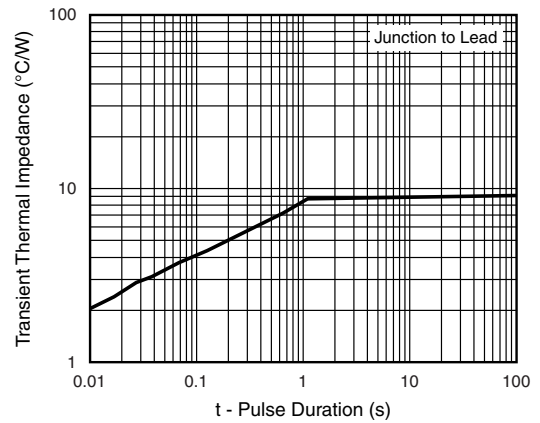


Fig. 6 - Typical Transient Thermal Impedance