

# PR3001 Thru PR3007



## 3 AMP FAST RECOVERY RECTIFIER

### FEATURES

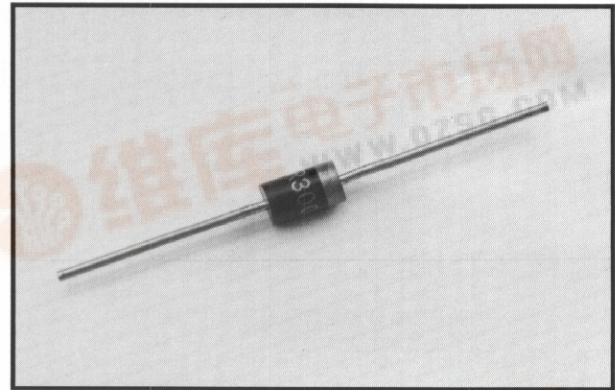
- Rating to 1000V PRV
- Low cost
- Diffused junction
- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with freon, alcohol, chlorothene and similar solvents
- UL recognized 94V-O plastic material

### Mechanical Data

- Case: JEDEC DO-201AD
- Terminals: Axial leads, solderable per MIL-STD-202, Method 208
- Polarity: Color band denotes cathode
- Weight: 0.04 ounce, 1.1 grams

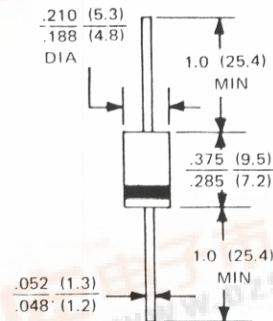
### Maximum Ratings & Characteristics

- 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%



### Outline Drawing

#### DO-201AD



Dimensions in inches and (millimeters)

|                                                                                                             |                   | PR3001      | PR3002 | PR3003 | PR3004 | PR3005 | PR3006 | PR3007 | Units |
|-------------------------------------------------------------------------------------------------------------|-------------------|-------------|--------|--------|--------|--------|--------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage                                                                      | V <sub>RRM</sub>  | 50          | 100    | 200    | 400    | 600    | 800    | 1000   | V     |
| Maximum RMS Voltage                                                                                         | V <sub>RMS</sub>  | 35          | 70     | 140    | 280    | 420    | 560    | 700    | V     |
| Maximum DC Blocking Voltage                                                                                 | V <sub>DC</sub>   | 50          | 100    | 200    | 400    | 600    | 800    | 1000   | V     |
| Maximum Average Forward Rectified Current<br>.375" (9.5mm) Lead Lengths @ T <sub>A</sub> = 90° C            | I <sub>(AV)</sub> | 3.0         |        |        |        |        |        |        | A     |
| Peak Forward Surge Current<br>8.3 ms Single Half-Sine-Wave<br>Superimposed On Rated Load                    | I <sub>FSM</sub>  | 150         |        |        |        |        |        |        | A     |
| Maximum Forward Voltage At 3.0A DC                                                                          | V <sub>F</sub>    | 1.2         |        |        |        |        |        |        | V     |
| Maximum DC Reverse Current @ T <sub>A</sub> = 25°C<br>At Rated DC Blocking Voltage @ T <sub>A</sub> = 100°C | I <sub>R</sub>    | 10          |        |        |        |        |        |        | μA    |
|                                                                                                             |                   | 200         |        |        | 300    | 400    | 500    |        |       |
| Maximum Reverse Recovery Time<br>@ T <sub>J</sub> = 25°C (Note 1)                                           | t <sub>rr</sub>   | 150         |        |        |        | 250    | 500    | ns     |       |
| Typical Junction Capacitance (Note 2)                                                                       | C <sub>J</sub>    | 50          |        |        |        | 25     |        |        | pF    |
| Typical Thermal Resistance (Note 3)                                                                         | R <sub>thJA</sub> | 15          |        |        |        |        |        |        | °C/W  |
| Operating Temperature Range                                                                                 | T <sub>J</sub>    | -65 to +150 |        |        |        |        |        |        | °C    |
| Storage Temperature Range                                                                                   | T <sub>STG</sub>  | -65 to +175 |        |        |        |        |        |        | °C    |

1. Measured with  $I_F = 0.5A$ ,  $I_R = 1A$ ,  $t_{rr} = 0.25A$

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC

3. Thermal resistance Junction to Ambient