

### 3 AMP ULTRA FAST SWITCHING RECTIFIER

#### FEATURES

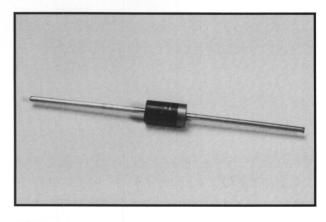
- Rating to 1000V PRV
- Low cost
- Ultrafast recovery time
- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with freon, alcohol, chlorothene and similar solvents
- UL recognized 94V-O plastic material

#### Mechanical Data

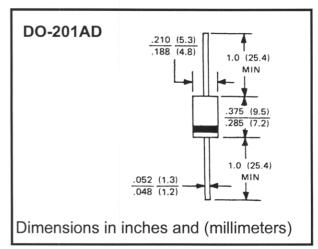
- Case: JEDEC DO-201AD molded plastic
- Terminals: Axial leads, solderable per MIL-STD-202, Method 208
- Polarity: Color band denotes cathode
- Weight: 0.04 ounce, 1.1 grams

## 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



|  |                  | UF3001      | UF3002 | UF3003 | UF3004 | UF3005 | UF3006 | UF3007 | Units |
|--|------------------|-------------|--------|--------|--------|--------|--------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage                       | VRRM             | 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                    | I (AV)           | 3.0         |        |        |        |        |        | А      |       |
| .375 (9.5mm) Lead Lengths @ T <sub>A</sub> = 55° C           | ' (AV)           | 3.0         |        |        |        |        |        |        |       |
| Peak Forward Surge Current                                   |                  | 150         |        |        |        |        |        | А      |       |
| 8.3 ms Single Half-Sine-Wave                                 | IFSM             |             |        |        |        |        |        |        |       |
| Superimposed On Rated Load                                   |                  |             |        |        |        |        |        |        |       |
| Maximum Forward Voltage At 3.0A DC                           | VF               |             | 1.0    |        | 1.3    |        | 1.7    |        | V     |
| Maximum DC Reverse Current @ T <sub>A</sub> = 25°C           | ln.              | IR 5        |        |        |        |        |        |        | μА    |
| At Rated DC Blocking Voltage @ T <sub>A</sub> = 100°C        | ı K              |             |        |        |        |        |        |        | μΛ    |
| Maximum Reverse Recovery Time @ T <sub>J</sub> = 25°C        | trr              | 50          |        |        | 75     |        |        | nS     |       |
| (Note 1)   | чт               |             |        |        |        |        | 113    |        |       |
| Typical Junction Capacitance (Note 2) T <sub>A</sub> = 25° C | Сл               |             | 7      | '5     |        |        | 50     |        | pF    |
| Typical Thermal Resistance                                   | RthJA            |             | 20     |        |        |        |        |        | °C/W  |
| Operating Temperature Range                                  | TJ               | -65 to +150 |        |        |        |        |        | °C     |       |
| Storage Temperature Range                                    | Tstg             | -65 to +175 |        |        |        |        |        | °C     |       |

Notes: 1. Measured at IF = 0.5A, IR = 1A, Irr = 0.25A

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