

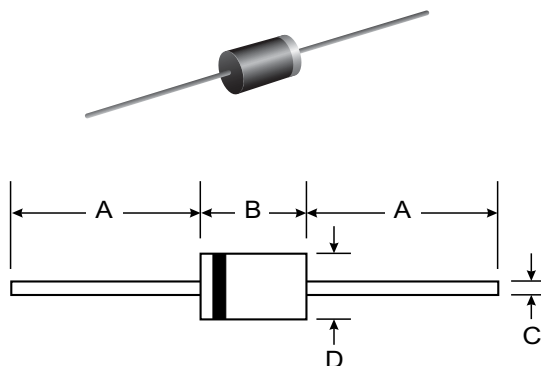
**VOLTAGE RANGE: 50 - 1000V**  
**CURRENT: 5.0 A**

### Features

- Diffused Junction
- Ultra-Fast Switching for High Efficiency
- High Current Capability and Low Forward Voltage Drop
- Surge Overload Rating to 150A Peak
- Low Reverse Leakage Current
- Plastic Material: UL Flammability Classification Rating 94V-0

### Mechanical Data

- Case: DO-201AD, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 1.2 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



| 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            | UF5001      | UF5002 | UF5003 | UF5004 | UF5005 | UF5006 | UF5007 | UF5008 | Unit |
|-----------------------------------------------------------------------------------------------------------------|-------------------|-------------|--------|--------|--------|--------|--------|--------|--------|------|
| Maximum Recurrent Peak Reverse Voltage                                                                          | V <sub>RRM</sub>  | 50          | 100    | 200    | 300    | 400    | 600    | 800    | 1000   | V    |
| Maximum RMS Voltage                                                                                             | V <sub>RMS</sub>  | 35          | 70     | 140    | 210    | 280    | 420    | 560    | 700    | V    |
| Maximum DC Blocking Voltage                                                                                     | V <sub>DC</sub>   | 50          | 100    | 200    | 300    | 400    | 600    | 800    | 1000   | V    |
| Maximum Average Forward Rectified Current<br>@ T <sub>A</sub> =55 °C                                            | I <sub>(AV)</sub> | 5.0         |        |        |        |        |        |        |        | A    |
| Peak Forward Surage Current<br>8.3ms Single Half Sine-Wave<br>Super Imposed on Rated Load(JEDEC Method)         | I <sub>FSM</sub>  | 200         |        |        |        |        |        |        |        | A    |
| Peak Forward Voltage at 5.0A DC                                                                                 | V <sub>F</sub>    | 1.0         |        |        |        | 1.3    | 1.7    |        |        | V    |
| Maximum DC Reverse Current<br>@ T <sub>J</sub> =25°C<br>at Rated DC Blocking Voltage<br>@ T <sub>J</sub> =100°C | I <sub>R</sub>    | 5.0<br>100  |        |        |        |        |        |        |        | uA   |
| Maximum Reverse Recovery Time (Note1)                                                                           | T <sub>RR</sub>   | 50          |        |        |        |        | 75     |        |        | nS   |
| Typical Junction Capacitance (Note2)                                                                            | C <sub>J</sub>    | 75          |        |        |        |        | 50     |        |        | pF   |
| Typical Thermal Resistance (Note3)                                                                              | R <sub>JA</sub>   | 20          |        |        |        |        |        |        |        | °C/W |
| Operating Temperature Range                                                                                     | T <sub>J</sub>    | -50 to +125 |        |        |        |        |        |        |        | °C   |
| Storage Temperature Range                                                                                       | T <sub>STG</sub>  | -50 to +150 |        |        |        |        |        |        |        | °C   |

NOTES: 1.Measured with I<sub>F</sub>=0.5A, I<sub>R</sub>=1A, I<sub>RR</sub>=0.25A

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

3.Thermal resistance junction to ambient

FIG. 1 –TYPICAL FORWARD  
CURRENT DERATING CURVE

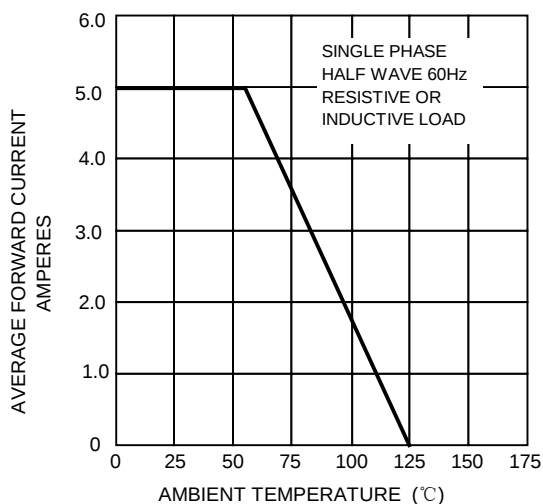


FIG.2 –TYPICAL REVERSE CHARACTERISTICS

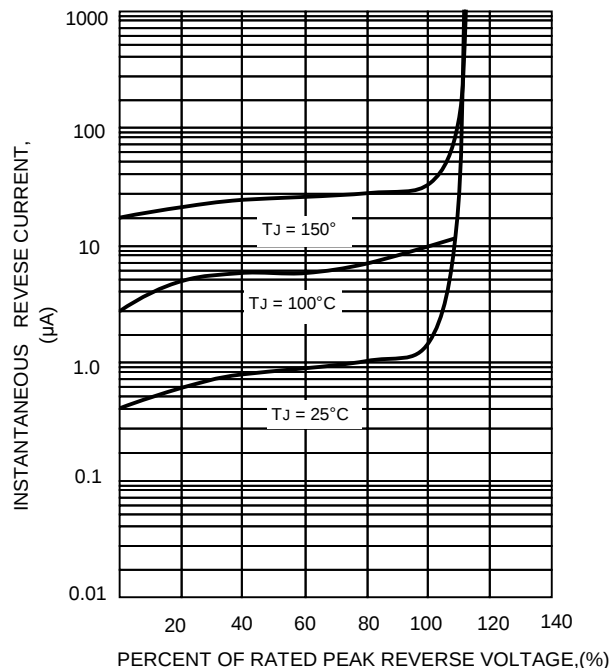


FIG. 4 – MAXIMUM NON-REPETITIVE  
FORWARD SURGE CURRENT

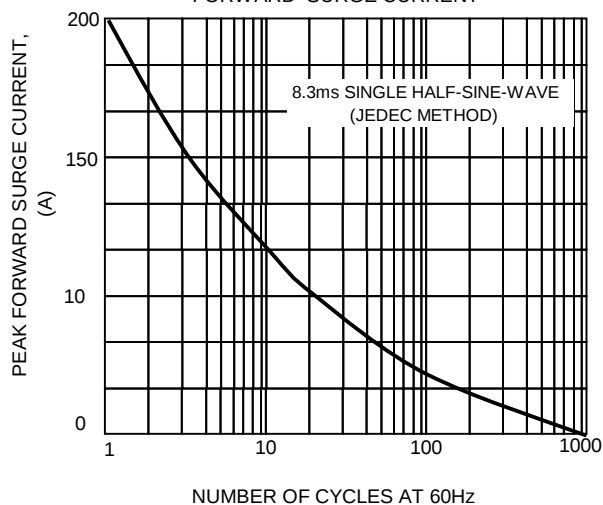


FIG.3-TYPICAL INSTANTANEOUS FORWARD  
CHARACTERISTICS

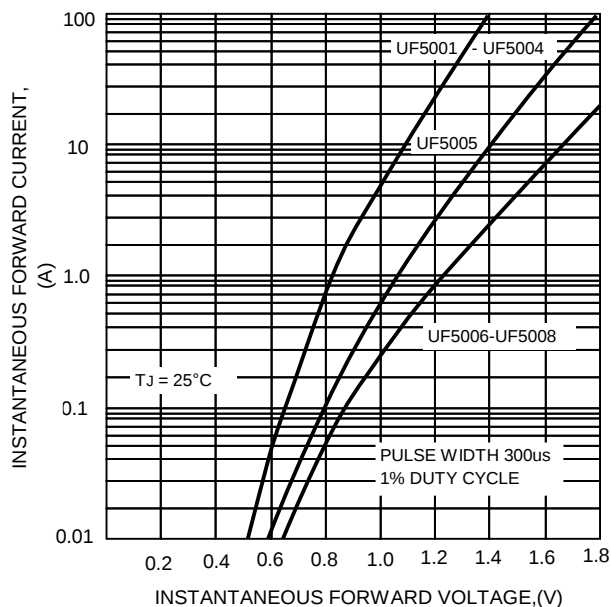


FIG.5 – TYPICAL JUNCTION CAPACITANCE

