

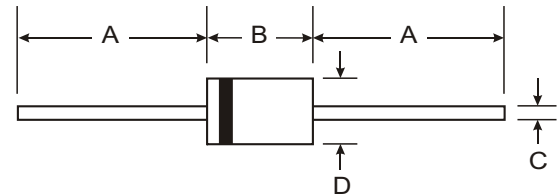
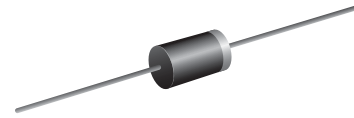
**VOLTAGE RANGE: 50 - 1000V**  
**CURRENT: 3.0 A**

### Features

- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability

### 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                    | 8.50  | 9.53 |
| C                    | 0.96  | 1.06 |
| D                    | 4.80  | 5.21 |
| All Dimensions in mm |       |      |

### Maximum Ratings and Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Characteristic   | Symbol       | UF 5400     | UF 5401 | UF 5402 | UF 5403 | UF 5404 | UF 5406 | UF 5407 | UF 5408 | Unit             |    |
|--|--------------|-------------|---------|---------|---------|---------|---------|---------|---------|------------------|----|
| Peak Repetitive Reverse Voltage  | $V_{RRM}$    | 50          | 100     | 200     | 300     | 400     | 600     | 800     | 1000    | V                |    |
| Working Peak Reverse Voltage   | $V_{RWM}$    |             |         |         |         |         |         |         |         |                  |    |
| DC Blocking Voltage  | $V_R$        |             |         |         |         |         |         |         |         |                  |    |
| RMS Reverse Voltage  | $V_{R(RMS)}$ | 35          | 70      | 140     | 210     | 280     | 420     | 560     | 700     | V                |    |
| Average Rectified Output Current (Note 1)  | $I_O$        | 3.0         |         |         |         |         |         |         |         | A                |    |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$    | 150         |         |         |         |         |         |         |         | A                |    |
| Forward Voltage  | $V_{FM}$     | 1.0         |         |         | 1.3     |         | 1.7     |         |         | V                |    |
| Peak Reverse Current   | $I_{RM}$     | 10          |         |         |         |         |         |         |         | $\mu\text{A}$    |    |
| At Rated DC Blocking Voltage   |              | 100         |         |         |         |         |         |         |         |                  |    |
| Reverse Recovery Time (Note 2)   | $t_{rr}$     | 50          |         |         |         |         | 75      |         |         |                  | nS |
| Typical Junction Capacitance (Note 3)  | $C_j$        | 80          |         |         |         |         | 50      |         |         |                  | pF |
| Operating Temperature Range  | $T_j$        | -65 to +125 |         |         |         |         |         |         |         | $^\circ\text{C}$ |    |
| Storage Temperature Range  | $T_{STG}$    | -65 to +150 |         |         |         |         |         |         |         | $^\circ\text{C}$ |    |

Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case  
 2. Measured with  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $IRR = 0.25\text{A}$ . See figure 5.  
 3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

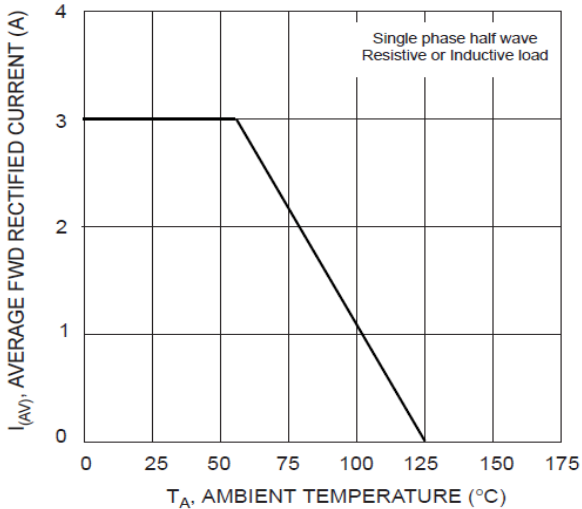


Fig. 1 Forward Current Derating Curve

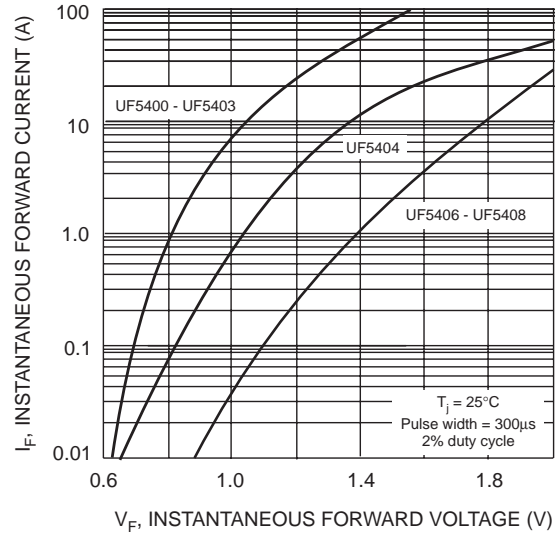


Fig. 2 Typical Forward Characteristics

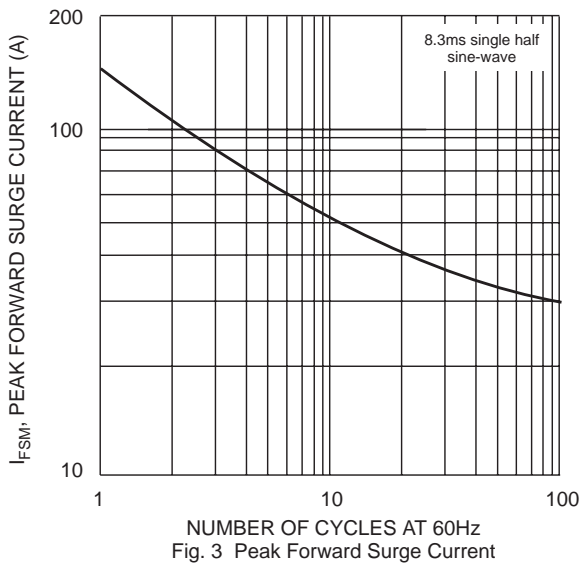


Fig. 3 Peak Forward Surge Current

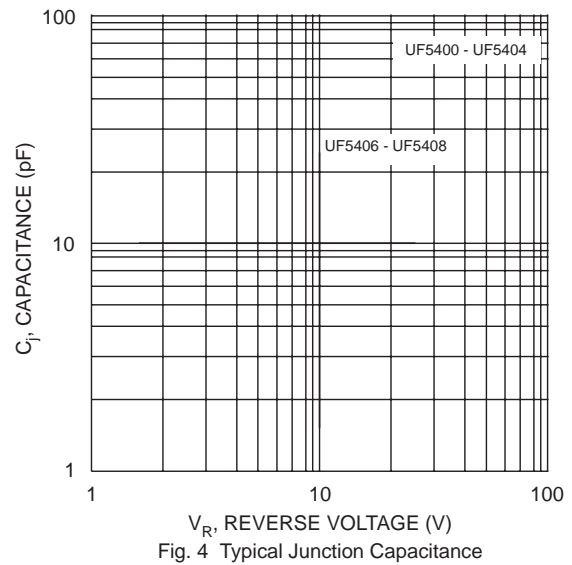
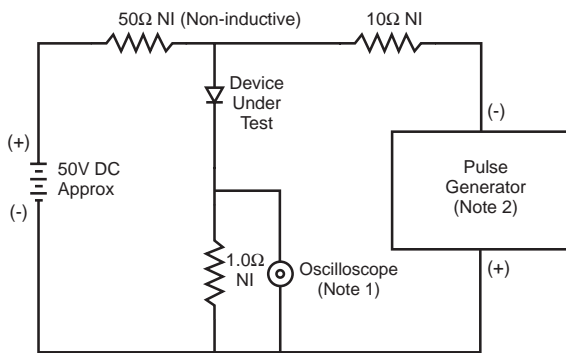
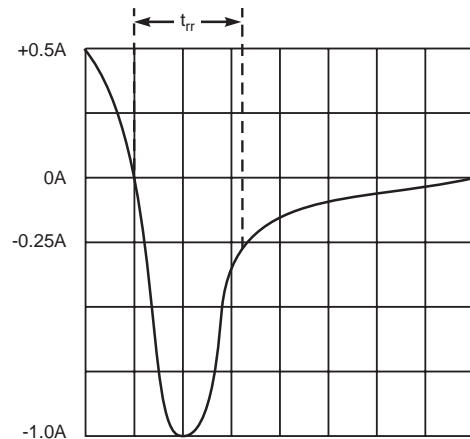


Fig. 4 Typical Junction Capacitance



- Notes:
1. Rise Time = 7.0ns max. Input Impedance = 1.0MΩ, 22pF.
  2. Rise Time = 10ns max. Input Impedance = 50Ω.



Set time base for 5/10ns/cm

Fig. 5 Reverse Recovery Time Characteristic and Test Circuit