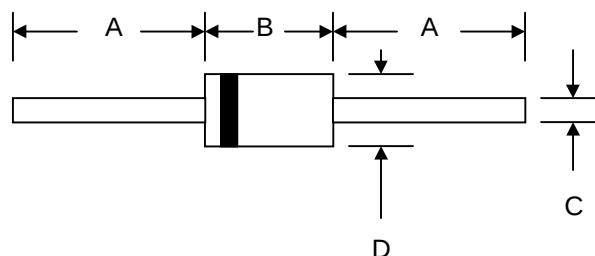


## 3.0A GLASS PASSIVATED ULTRAFAST DIODE

### Features

- Glass Passivated Die Construction
- 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
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**

| DO-201AD             |      |      |
|----------------------|------|------|
| Dim                  | Min  | Max  |
| A                    | 25.4 | —    |
| 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                                                 | UF 5400G    | UF 5401G | UF 5402G | UF 5403G | UF 5404G | UF 5406G | UF 5407G | UF 5408G | Unit |
|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-------------|----------|----------|----------|----------|----------|----------|----------|------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage                                | V <sub>RRM</sub><br>V <sub>RWM</sub><br>V <sub>R</sub> | 50          | 100      | 200      | 300      | 400      | 600      | 800      | 1000     | V    |
| RMS Reverse Voltage                                                                                                   | V <sub>R(RMS)</sub>                                    | 35          | 70       | 140      | 210      | 280      | 420      | 560      | 700      | V    |
| Average Rectified Output Current<br>(Note 1) @T <sub>A</sub> = 55°C                                                   | I <sub>O</sub>                                         | 3.0         |          |          |          |          |          |          |          | A    |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms Single half sine-wave superimposed on<br>rated load (JEDEC Method) | I <sub>FSM</sub>                                       | 150         |          |          |          |          |          |          |          | A    |
| Forward Voltage @I <sub>F</sub> = 3.0A                                                                                | V <sub>FM</sub>                                        | 1.0         |          |          |          | 1.3      | 1.7      |          |          | V    |
| Peak Reverse Current @T <sub>A</sub> = 25°C<br>At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C                   | I <sub>RM</sub>                                        | 10<br>100   |          |          |          |          |          |          |          | μA   |
| Reverse Recovery Time (Note 2)                                                                                        | t <sub>rr</sub>                                        | 50          |          |          |          |          | 75       |          |          | nS   |
| Typical Junction Capacitance (Note 3)                                                                                 | C <sub>j</sub>                                         | 80          |          |          |          |          | 50       |          |          | pF   |
| Operating Temperature Range                                                                                           | T <sub>j</sub>                                         | -65 to +150 |          |          |          |          |          |          |          | °C   |
| Storage Temperature Range                                                                                             | T <sub>STG</sub>                                       | -65 to +150 |          |          |          |          |          |          |          | °C   |

Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case  
 2. Measured with I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>RR</sub> = 0.25A. See figure 5.  
 3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

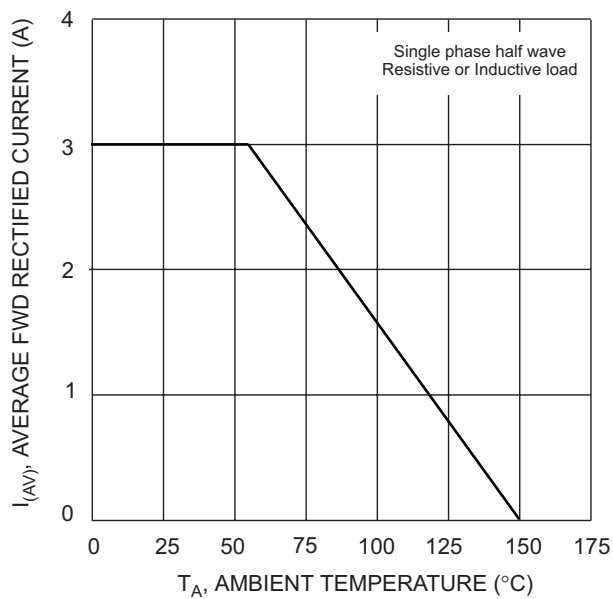


Fig. 1 Forward Current Derating Curve

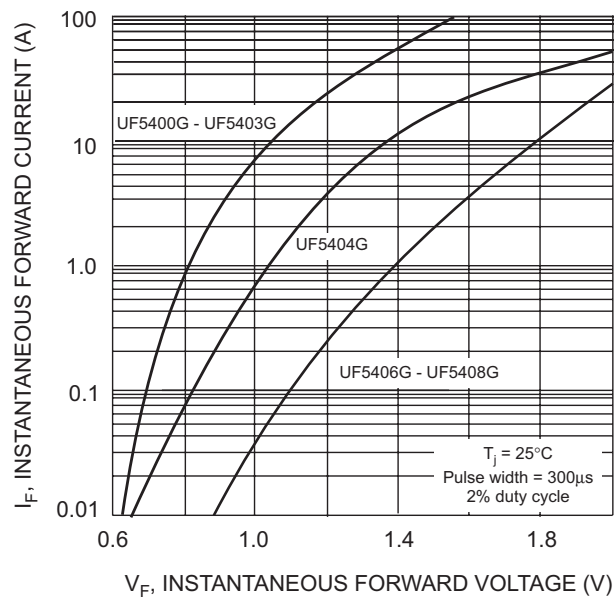


Fig. 2 Typical Forward Characteristics

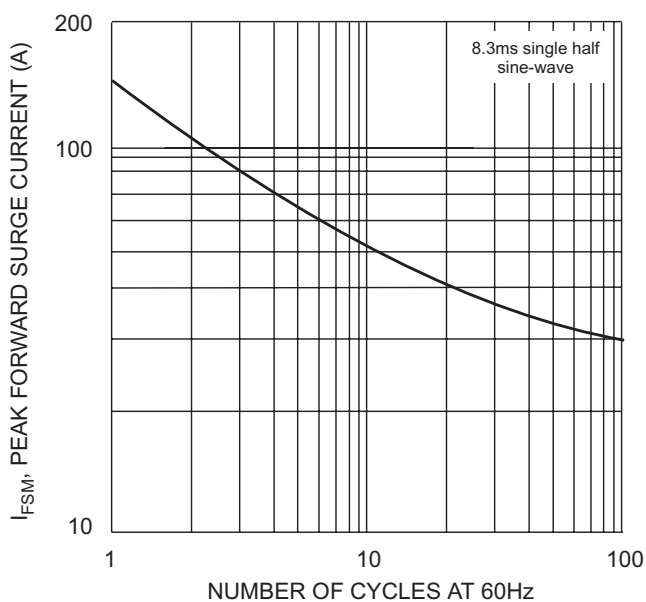


Fig. 3 Peak Forward Surge Current

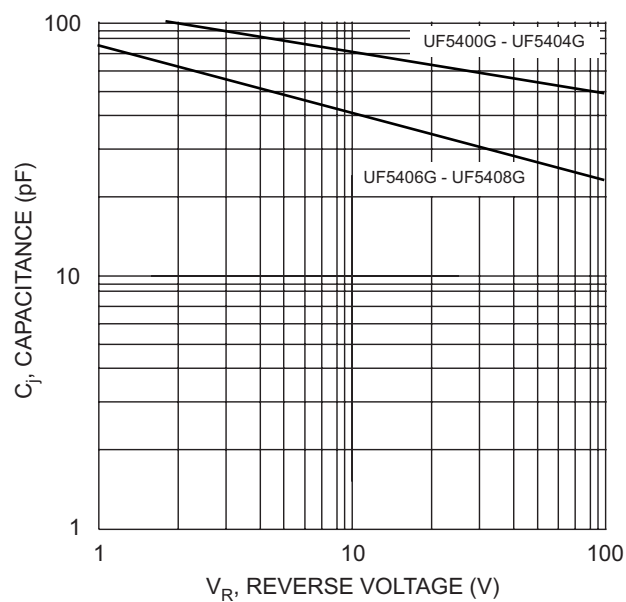
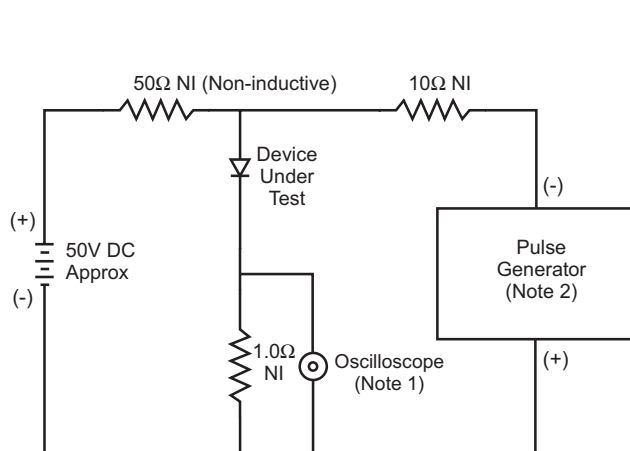
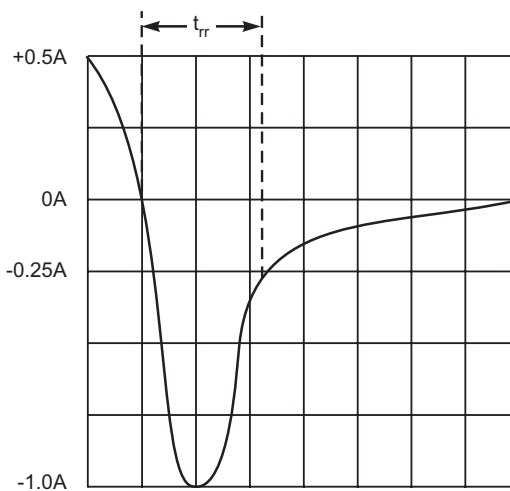


Fig. 4 Typical Junction Capacitance



- Notes:
1. Rise Time = 7.0ns max. Input Impedance = 1.0M $\Omega$ , 22pF.
  2. Rise Time = 10ns max. Input Impedance = 50 $\Omega$ .

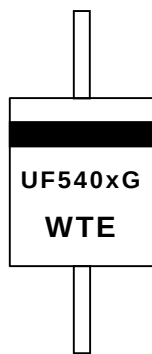


Set time base for 5/10ns/cm

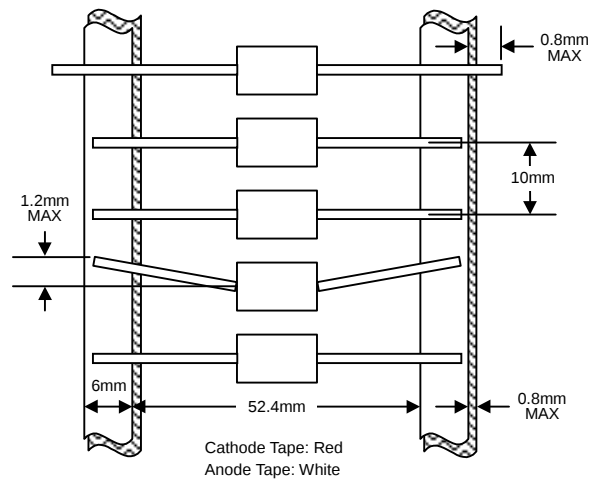
Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

## MARKING INFORMATION

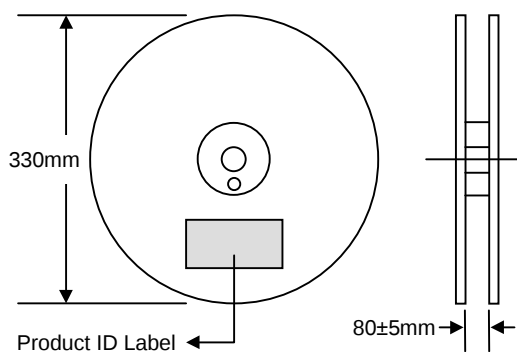
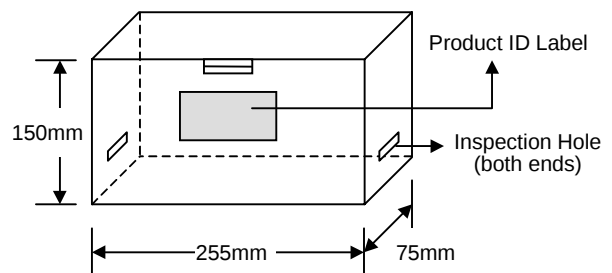
## TAPING SPECIFICATIONS



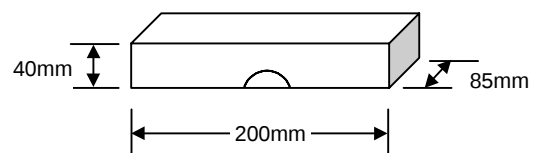
|         |                            |
|---------|----------------------------|
| Cathode | = Polarity Band            |
| UF540xG | = Device Number            |
| x       | = 0, 1, 2, 3, 4, 6, 7 or 8 |
| WTE     | = Manufacturer's Logo      |



## PACKAGING INFORMATION

**TAPE & REEL****TAPE & BOX**

**BULK**



| Packaging              | Reel Diameter / Box Size (mm) | Quantity (PCS) | Carton Size (mm) | Quantity (PCS) | Approx. Gross Weight (KG) |
|------------------------|-------------------------------|----------------|------------------|----------------|---------------------------|
| <b>TAPE &amp; REEL</b> | 330                           | 1,200          | 370 x 370 x 420  | 6,000          | 10.0                      |
| <b>TAPE &amp; BOX</b>  | 255 x 75 x 150                | 1,200          | 400 x 273 x 415  | 12,000         | 17.0                      |
| <b>BULK</b>            | 200 x 85 x 40                 | 500            | 459 x 214 x 256  | 12,500         | 16.0                      |

**Note:** 1. Paper reel, white or gray color. Core material: plastic or metal.  
2. Components are packed in accordance with EIA standard RS-296-E.

## ORDERING INFORMATION

| Product No.       | Package Type | Shipping Quantity |
|-------------------|--------------|-------------------|
| UF5400G-T3        | DO-201AD     | 1200/Tape & Reel  |
| <b>UF5400G-TB</b> | DO-201AD     | 1200/Tape & Box   |
| UF5400G           | DO-201AD     | 500 Units/Box     |
| UF5401G-T3        | DO-201AD     | 1200/Tape & Reel  |
| <b>UF5401G-TB</b> | DO-201AD     | 1200/Tape & Box   |
| UF5401G           | DO-201AD     | 500 Units/Box     |
| UF5402G-T3        | DO-201AD     | 1200/Tape & Reel  |
| <b>UF5402G-TB</b> | DO-201AD     | 1200/Tape & Box   |
| UF5402G           | DO-201AD     | 500 Units/Box     |
| UF5403G-T3        | DO-201AD     | 1200/Tape & Reel  |
| <b>UF5403G-TB</b> | DO-201AD     | 1200/Tape & Box   |
| UF5403G           | DO-201AD     | 500 Units/Box     |
| UF5404G-T3        | DO-201AD     | 1200/Tape & Reel  |
| <b>UF5404G-TB</b> | DO-201AD     | 1200/Tape & Box   |
| UF5404G           | DO-201AD     | 500 Units/Box     |
| UF5406G-T3        | DO-201AD     | 1200/Tape & Reel  |
| <b>UF5406G-TB</b> | DO-201AD     | 1200/Tape & Box   |
| UF5406G           | DO-201AD     | 500 Units/Box     |
| UF5407G-T3        | DO-201AD     | 1200/Tape & Reel  |
| <b>UF5407G-TB</b> | DO-201AD     | 1200/Tape & Box   |
| UF5407G           | DO-201AD     | 500 Units/Box     |
| UF5408G-T3        | DO-201AD     | 1200/Tape & Reel  |
| <b>UF5408G-TB</b> | DO-201AD     | 1200/Tape & Box   |
| UF5408G           | DO-201AD     | 500 Units/Box     |

1. Products listed in **bold** are WTE **Preferred** devices.
2. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
3. **To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, UF5400G-TB-LF.**

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**WARNING:** DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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