

## UF4001-G Thru. UF4008-G

Voltage: 50 to 1000 V

Current: 1.0 A

RoHS Device

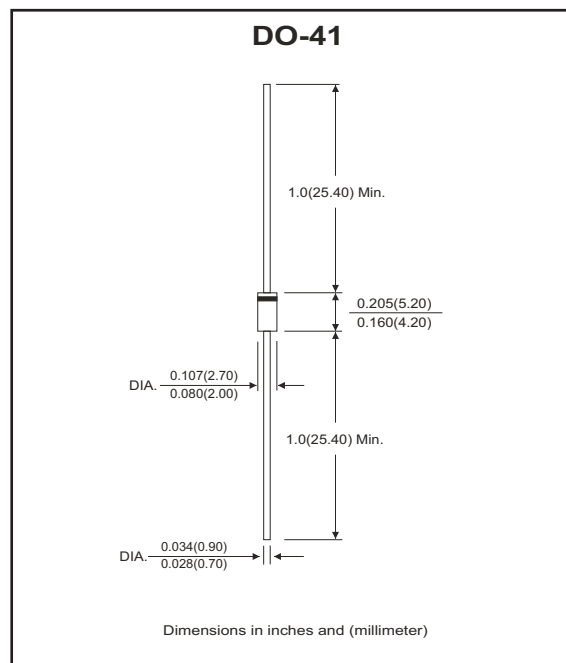


### Features

- Diffused junction.
- Ultra fast switching for high efficiency.
- Low reverse leakage current.
- Low forward voltage drop.
- High current capability.

### Mechanical data

- Case: JEDEC DO-41 molded plastic.
- Polarity: Color band denotes cathode.
- Mounting position: Any
- Weight: 0.34 grams



### Maximum Ratings and Electrical 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%.

or capacitive load, surge current by 25 %.

| Parameter                                                                                                   | Symbol            | UF4-G       |      |      |      |      |      |      |      | Unit |
|-------------------------------------------------------------------------------------------------------------|-------------------|-------------|------|------|------|------|------|------|------|------|
|                                                                                                             |                   | 4001        | 4002 | 4003 | 4004 | 4005 | 4006 | 4007 | 4008 |      |
| 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> | 1.0         |      |      |      |      |      |      |      | A    |
| Peak forward surge current, 8.3ms single<br>half sine-wave superimposed on rated load<br>(JEDEC method)     | I <sub>FSM</sub>  | 30          |      |      |      |      |      |      |      | A    |
| Peak forward voltage at 1.0A DC                                                                             | V <sub>F</sub>    | 1.0         |      |      | 1.3  |      | 1.7  |      |      | V    |
| Maximum DC reverse current<br>at rated DC blocking voltage<br>T <sub>A</sub> =25°C<br>T <sub>A</sub> =100°C | I <sub>R</sub>    | 5.0<br>100  |      |      |      |      |      |      |      | μA   |
| Maximum reverse recovery time (Note 1)                                                                      | t <sub>rr</sub>   | 50          |      |      |      |      | 75   |      |      | nS   |
| Typical junction capacitance (Note 2)                                                                       | C <sub>J</sub>    | 20          |      |      |      |      | 10   |      |      | pF   |
| Typical thermal resistance (Note 3)                                                                         | R <sub>θJA</sub>  | 25          |      |      |      |      |      |      |      | °C/W |
| Operating temperature range                                                                                 | T <sub>J</sub>    | -55 to +150 |      |      |      |      |      |      |      | °C   |
| Storage temperature range                                                                                   | T <sub>STG</sub>  | -55 to +150 |      |      |      |      |      |      |      | °C   |

NOTES: 1. Measured with  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{RR}=0.25A$ .  
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
3. Thermal resistance junction to ambient.  
4. The typical data above is for reference only.

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## Rating and Characteristic Curves (UF4001-G Thru. UF4008-G)

Fig.1 - Typical Forward Current Derating Curve

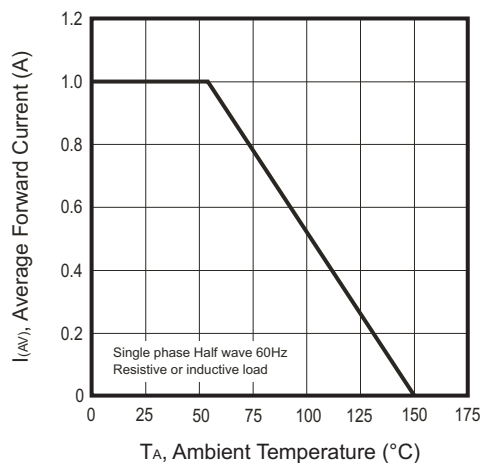


Fig.2 - Max. Non-Repetitive Surge Current

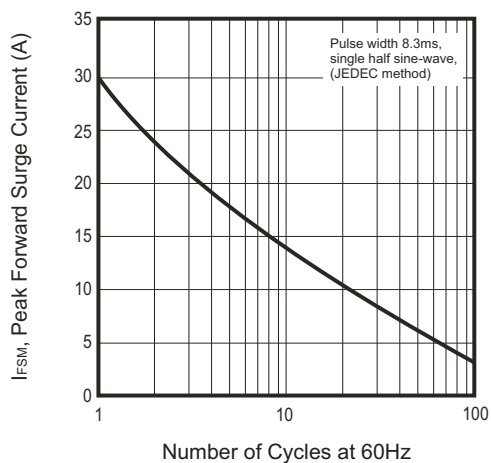


Fig.3 - Typical Forward Characteristics

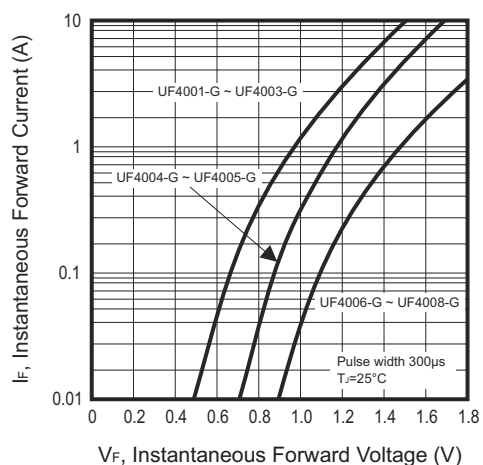
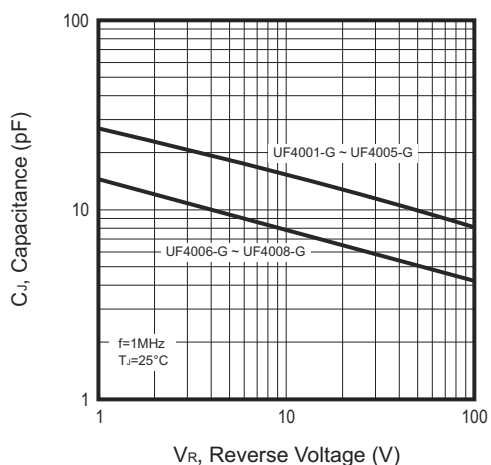


Fig.4 - Typical Junction Capacitance



## Marking Code

| Part Number | Marking code |
|-------------|--------------|
| UF4001-G    | UF4001       |
| UF4002-G    | UF4002       |
| UF4003-G    | UF4003       |
| UF4004-G    | UF4004       |
| UF4005-G    | UF4005       |
| UF4006-G    | UF4006       |
| UF4007-G    | UF4007       |
| UF4008-G    | UF4008       |

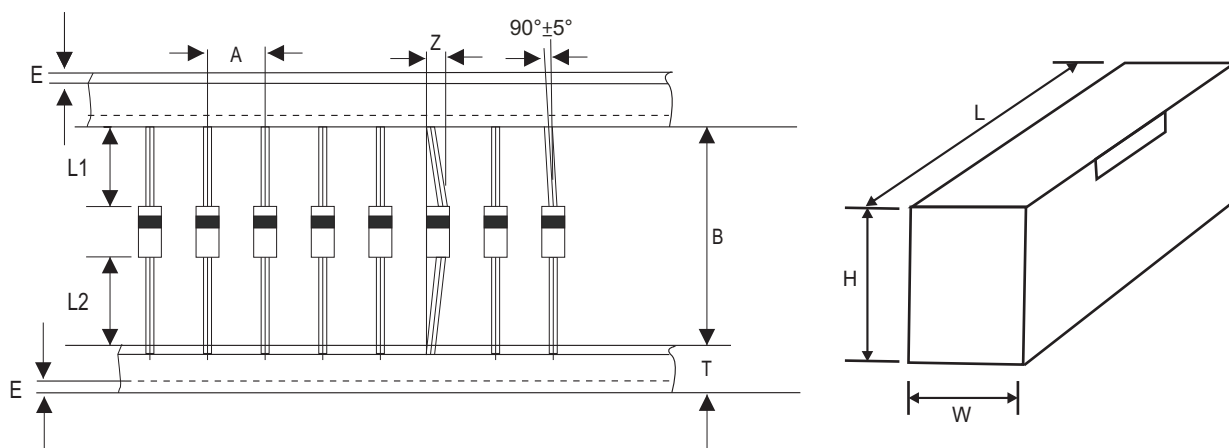


**XXX = Product type marking code**

## Standard Packaging

| Case Type | AMMO PACK      |                   |
|-----------|----------------|-------------------|
|           | BOX<br>( pcs ) | CARTON<br>( pcs ) |
| DO-41     | 5,000          | 45,000            |

## Taping Specification For Axial Lead Diodes



| DO-41 | SYMBOL | A                 | B                 | Z           | T                 | E           | L1          | L2          |
|-------|--------|-------------------|-------------------|-------------|-------------------|-------------|-------------|-------------|
|       | (mm)   | $5.00 \pm 0.50$   | $52.40 \pm 1.50$  | 1.20 (max)  | $6.00 \pm 0.40$   | 0.80 (max)  | 1.00 (max)  | 1.00 (max)  |
|       | (inch) | $0.197 \pm 0.020$ | $2.063 \pm 0.590$ | 0.047 (max) | $0.236 \pm 0.016$ | 0.031 (max) | 0.039 (max) | 0.039 (max) |

| DO-41 | SYMBOL | L                | W               | H               |  |  |  |  |
|-------|--------|------------------|-----------------|-----------------|--|--|--|--|
|       | (mm)   | $255.0 \pm 5.0$  | $78.0 \pm 5.0$  | $95.0 \pm 5.0$  |  |  |  |  |
|       | (inch) | $10.04 \pm 0.20$ | $3.07 \pm 0.20$ | $3.74 \pm 0.20$ |  |  |  |  |

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