

## UF4001-G Thru. UF4008-G

Voltage: 50 to 1000 V

Current: 1.0 A

RoHS Device

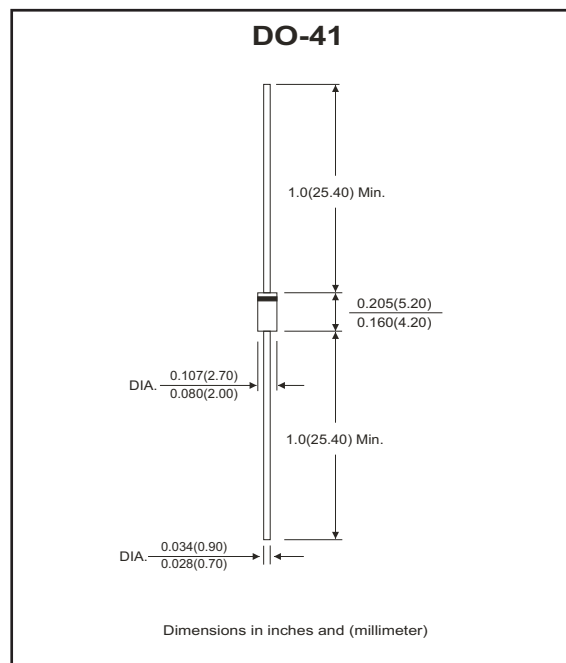


### Features

- 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.

Company reserves the right to improve product design , functions and reliability without notice.

REV:C

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

Fig.1 - Typical Forward Current Derating Curve

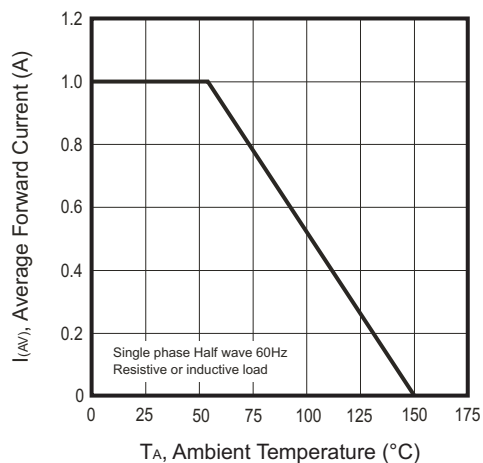


Fig.2 - Max. Non-Repetitive Surge Current

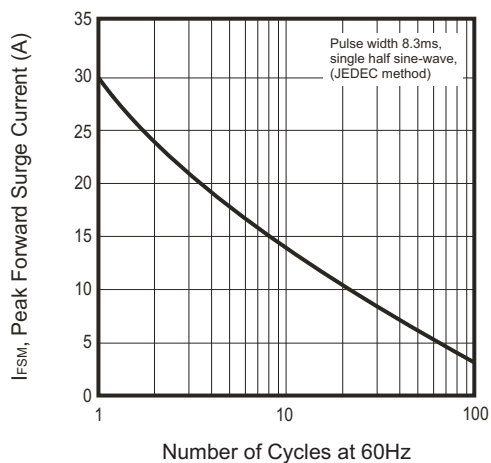


Fig.3 - Typical Forward Characteristics

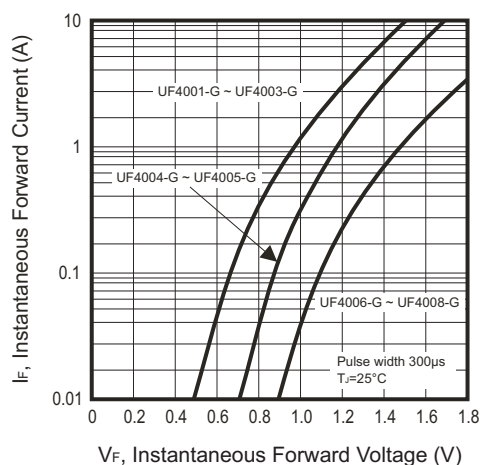
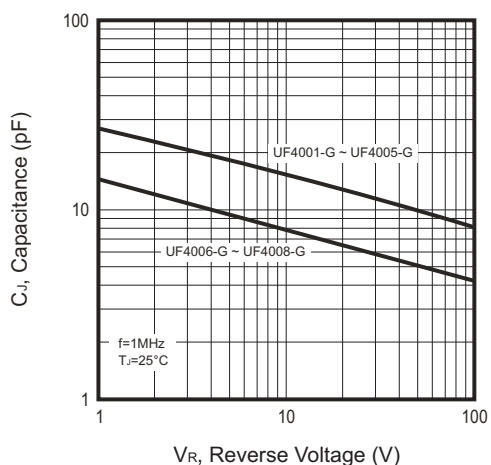


Fig.4 - Typical Junction Capacitance



## 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       |

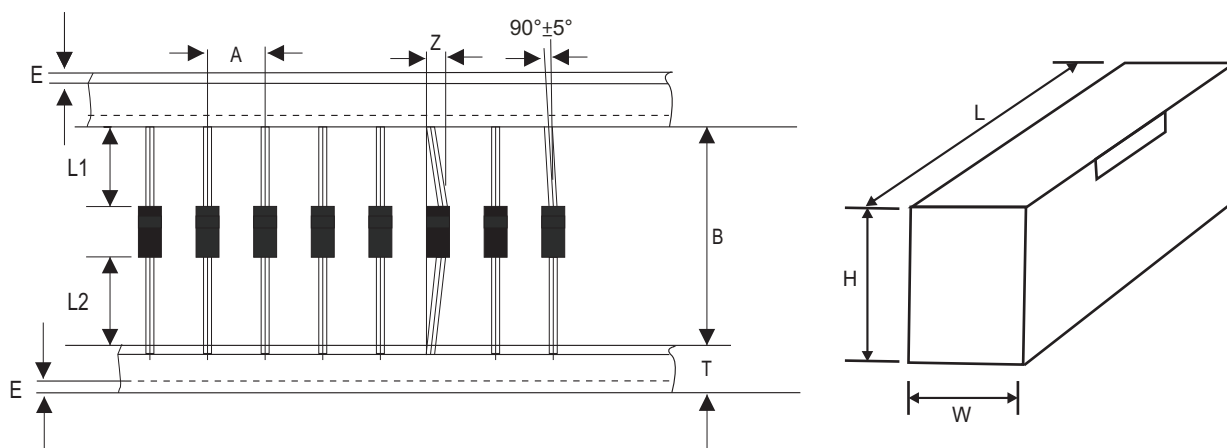


**XXX = Product type marking code**

## 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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