

UF3001-G Thru. UF3008-G

Voltage: 50 to 1000 V

Current: 3.0 A

RoHS Device

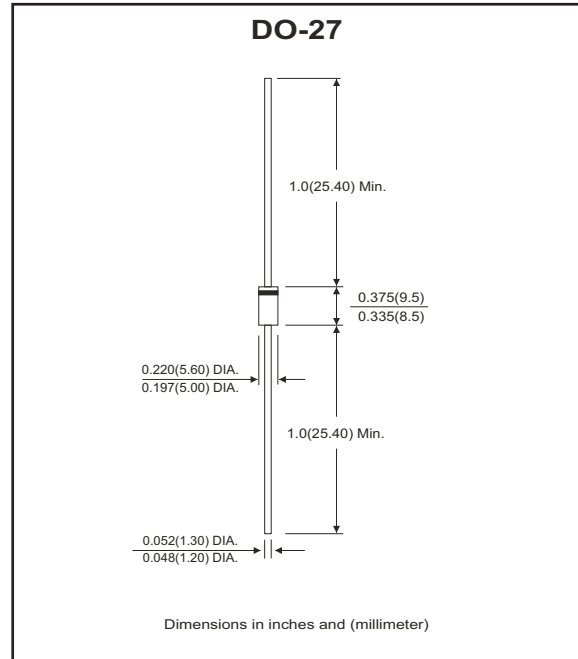


Features

- Low cost construction.
- Ultra fast switching for high efficiency.
- Low reverse leakage current.
- High forward voltage drop.
- High current capability.
- The plastic material carries UL recognition 94V-0

Mechanical data

- Case: JEDEC DO-27 molded plastic .
- Polarity: Color band denotes cathode.
- Lead: Plated axial lead, solderable per MIL-STD-202E, method 208C
- Mounting position: Any
- Weight: 0.04 ounces, 1.1 grams



Electrical Characteristics (at TA=25°C unless otherwise noted)

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%.

| Parameter | Symbol | UF3001 -G | UF3002 -G | UF3003 -G | UF3004 -G | UF3005 -G | UF3006 -G | UF3007 -G | UF3008 -G | Unit |
|---|-----------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------|
| | Marking | UF3001 | UF3002 | UF3003 | UF3004 | UF3005 | UF3006 | UF3007 | UF3008 | |
| Maximum repetitive peak reverse voltage | V_{RRM} | 50 | 100 | 200 | 300 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS voltage | V_{RMS} | 35 | 70 | 140 | 210 | 280 | 420 | 560 | 700 | V |
| Maximum DC blocking voltage | V_{DC} | 50 | 100 | 200 | 300 | 400 | 600 | 800 | 1000 | V |
| Maximum average forward rectified current Ø.375"(9.5mm) lead length @TA=55 | I_{AV} | 3.0 | | | | | | | | A |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 125 | | | | | | | | A |
| Peak forward voltage at 3.0A DC | V_F | 1.0 | | | 1.3 | | 1.7 | | | V |
| Maximum reverse current at rated DC blocking voltage | TA=25°C | 5.0 | | | | | | | | µA |
| | TA=100°C | 100 | | | | | | | | µA |
| Maximum reverse recovery time (Note 1) | t_{rr} | 50 | | | | | 75 | | | nS |
| Typical junction capacitance (Note 2) | C_J | 50 | | | | | 30 | | | PF |
| Typical thermal resistance (Note 3) | $R_{θJA}$ | 20 | | | | | | | | °C/W |
| Operating temperature range | T_J | -55 ~ +125 | | | | | | | | °C |
| Storage temperature range | T_{STG} | -55 ~ +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 4.0Volts.
3. Thermal resistance junction to ambient.

Rating and Characteristic Curves (UF3001-G Thru. UF3008-G)

Fig.1 Forward Current Derating Curve

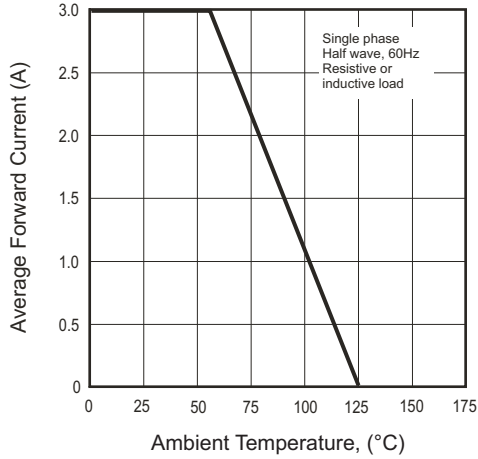


Fig.2 Maximum Non-Repetitive Surge Current

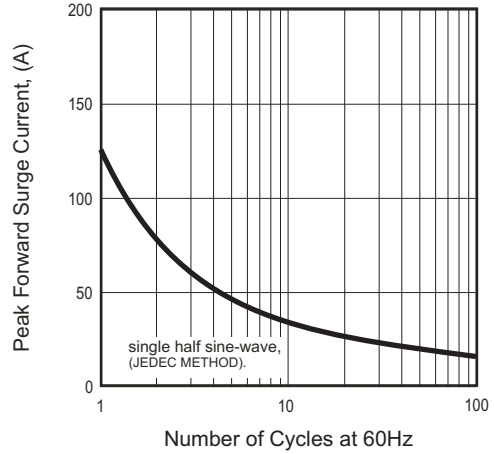


Fig.3 Typical Junction Capacitance

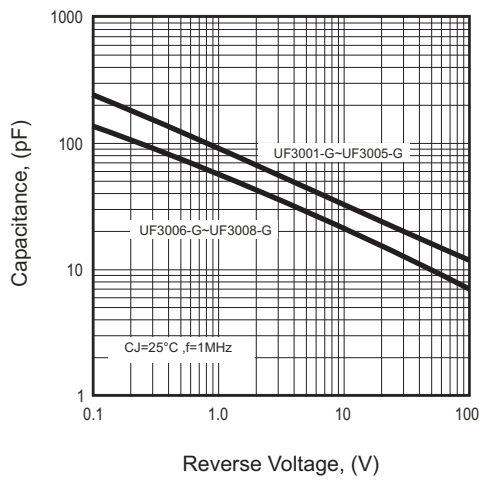
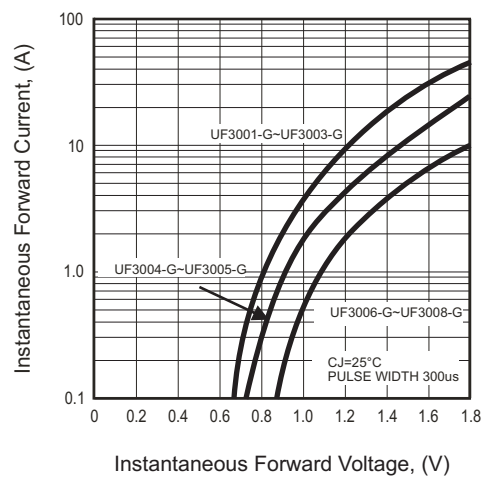
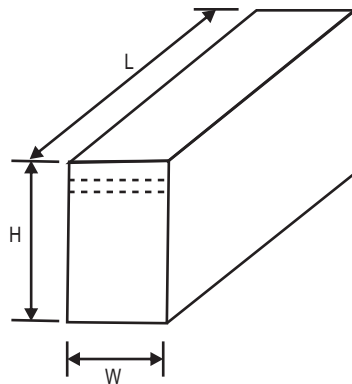
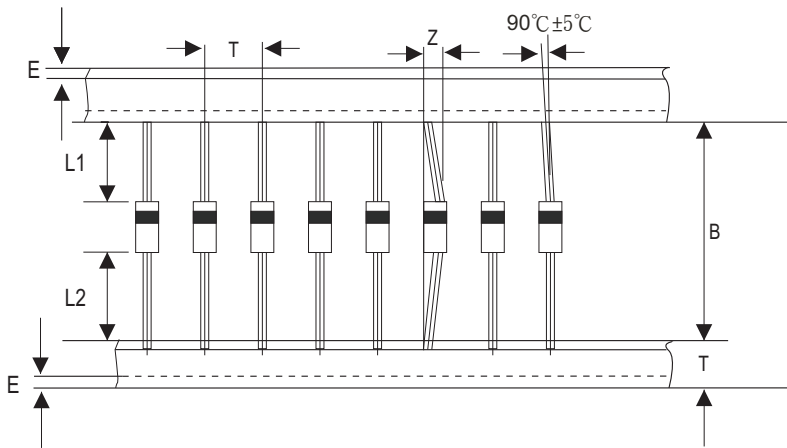


Fig.4 Typical Forward Characteristics



Taping Specification For Axial Lead Diodes



| DO-27 | SYMBOL | A | B | Z | T | E | L1-L2 | L |
|-------|--------|---------------|---------------|-------------|---------------|-------------|-------------|----------------|
| | (mm) | 10.0 ± 0.50 | 52.4 ± 1.5 | 1.2 (max) | 6.0 ± 0.4 | 0.8 (max) | 1.0 (max) | 255.0 ± 5.0 |
| | (inch) | 0.394 ± 0.020 | 2.063 ± 0.059 | 0.047 (max) | 0.236 ± 0.016 | 0.032 (max) | 0.040 (max) | 10.039 ± 0.197 |

| DO-27 | SYMBOL | W | H | | | | |
|-------|--------|---------------|---------------|--|--|--|--|
| | (mm) | 78.0 ± 5.0 | 95.0 ± 5.0 | | | | |
| | (inch) | 3.071 ± 0.197 | 3.740 ± 0.197 | | | | |

Standard Packaging

| Case Type | AMMO PACK | |
|-----------|----------------|-------------------|
| | BOX (pcs) | CARTON (pcs) |
| DO-27 | 1,200 | 12,000 |

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