

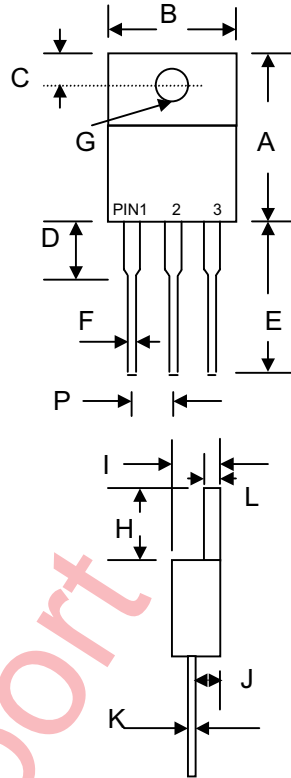
Data Sheet 2612, Rev.A

Features

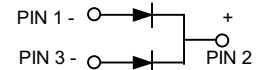
- Glass Passivated Die Construction
- Super-Fast Switching for High Efficiency
- High Current Capability
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-O

Mechanical Data

- Case: ITO-220 Full Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 2.24 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



| ITO-220 | | | | |
|---------|--------|--------|---------|---------|
| Dim | Min | Max | Min | Max |
| A | 14.9 | 15.1 | 0.587 | 0.594 |
| B | — | 10.5 | — | 0.413 |
| C | 2.62 | 2.87 | 0.103 | 0.113 |
| D | 3.56 | 4.06 | 0.140 | 0.160 |
| E | 13.46 | 14.22 | 0.530 | 0.560 |
| F | 0.68 | 0.94 | 0.027 | 0.037 |
| G | 3.74 Ø | 3.91 Ø | 0.147 Ø | 0.154 Ø |
| H | 5.84 | 6.86 | 0.230 | 0.270 |
| I | 4.44 | 4.70 | 0.175 | 0.185 |
| J | 2.54 | 2.79 | 0.10 | 0.110 |
| K | 0.35 | 0.64 | 0.014 | 0.025 |
| L | 2.9 | 3.3 | 0.114 | 0.130 |
| P | 2.41 | 2.67 | 0.095 | 0.105 |
| | In mm | | In inch | |



Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

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

| Characteristic | Symbol | ER 1000FCT | ER 1001FCT | ER 1001AFCT | ER 1002FCT | ER 1003FCT | ER 1004FCT | ER 1006FCT | Unit | |
|--|-----------------------------------|-------------|------------|-------------|------------|------------|------------|------------|------|----|
| Peak Repetitive Reverse Voltage | V _{RRM} | | | | | | | | V | |
| Working Peak Reverse Voltage | V _{RWM} | 50 | 100 | 150 | 200 | 300 | 400 | 600 | | |
| DC Blocking Voltage | V _R | | | | | | | | | |
| RMS Reverse Voltage | V _{R(RMS)} | 35 | 70 | 105 | 140 | 210 | 280 | 420 | V | |
| Average Rectified Output Current @T _C = 100°C | I _o | 10 | | | | | | | A | |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 150 | | | | | | | A | |
| Forward Voltage @I _F = 5.0A | V _{FM} | 0.95 | | | 1.3 | | 1.7 | | V | |
| Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 100°C | I _{RM} | 10 | | | | 400 | | | | µA |
| Reverse Recovery Time (Note 1) | t _{rr} | 35 | | | 50 | | | | nS | |
| Typical Junction Capacitance (Note 2) | C _j | 70 | | | 50 | | | | pF | |
| Operating and Storage Temperature Range | T _j , T _{STG} | -65 to +150 | | | | | | | °C | |

Note: 1. Measured with I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

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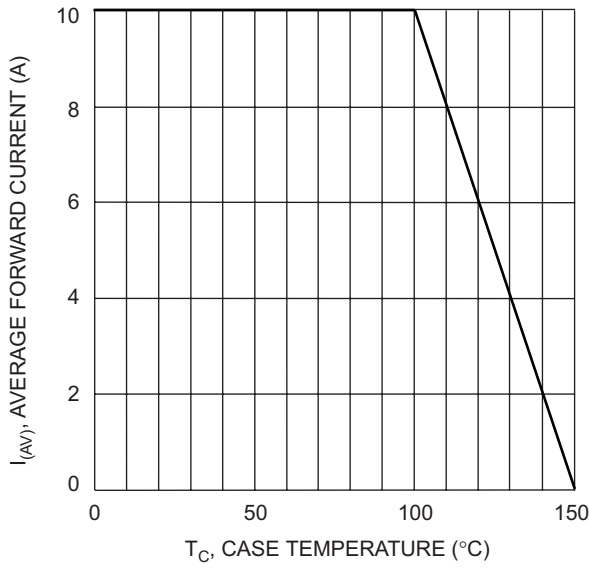


Fig. 1 Forward Current Derating Curve

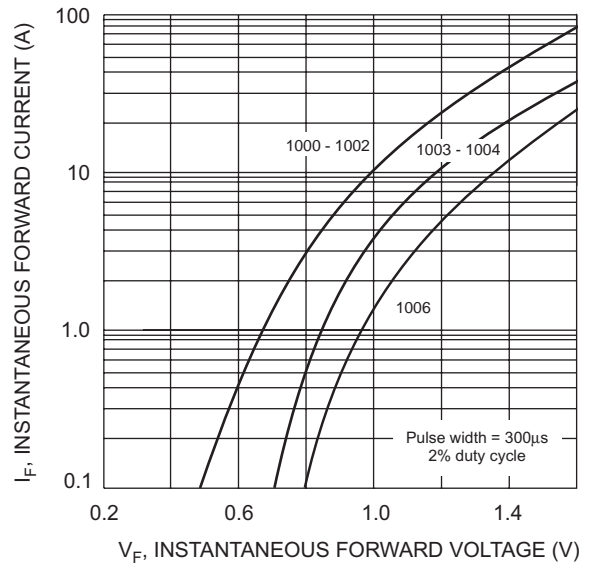


Fig. 2 Typical Forward Characteristics

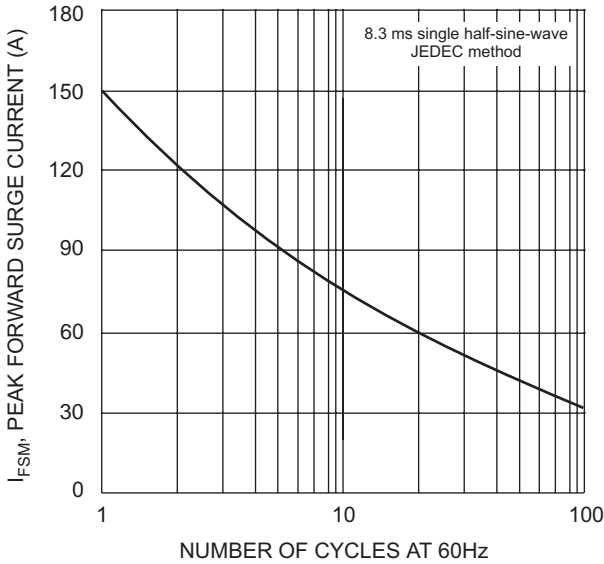


Fig. 3 Max Non-Repetitive Surge Current

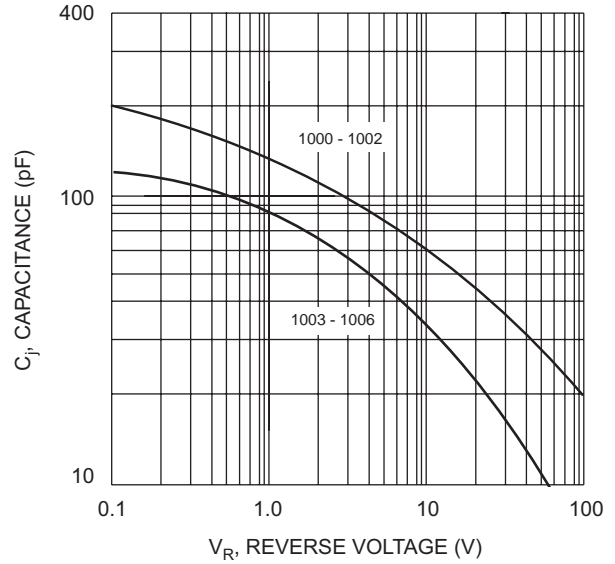


Fig. 4 Typical Junction Capacitance

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