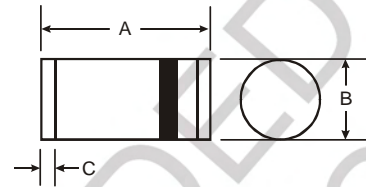


Features

- Glass Passivated Junction
- High Current Capability
- Low Forward Voltage Drop
- Low Leakage Current
- **Lead Free Finish/RoHS Compliant Version (Note 2)**



Mechanical Data

- Case: MELF
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals: Solderable per MIL-STD-202, Method 208 (e3)
- Lead Free Plating (Matte Tin Finish).
- Polarity: Cathode Band
- Marking: Cathode Band Only
- Approximate Weight: 0.25 grams

| MELF | | |
|----------------------|--------------|------|
| Dim | Min | Max |
| A | 4.80 | 5.20 |
| B | 2.40 | 2.60 |
| C | 0.55 Nominal | |
| All Dimensions in mm | | |

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 | DL 4001 | DL 4002 | DL 4003 | DL 4004 | DL 4005 | DL 4006 | DL 4007 | Unit |
|---|-----------------------------------|-------------|---------|---------|---------|---------|---------|---------|------|
| Peak Repetitive Reverse Voltage | V _{RRM} | | | | | | | | |
| Working Peak Reverse Voltage | V _{RWM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| DC Blocking Voltage | V _R | | | | | | | | |
| RMS Reverse Voltage | V _{R(RMS)} | 35 | 71 | 141 | 283 | 424 | 566 | 707 | V |
| Average Forward Rectified Current @ T _T = 75°C | I _O | 1.0 | | | | | | | A |
| Peak Forward Surge Current 8.3ms single half sine-wave Superimposed on Rated Load | I _{FSM} | 30 | | | | | | | A |
| Maximum Forward Voltage @ I _F = 1.0A | V _{FM} | 1.1 | | | | | | | V |
| Maximum DC Reverse Current @ T _A = 25°C | I _{RM} | 5.0 | | | | | | | μA |
| @Rated DC Blocking Voltage @ T _A = 100°C | | 50 | | | | | | | |
| Typical Thermal Resistance, Junction to Ambient Air | R _{θJA} | 50 | | | | | | | °C/W |
| Typical Total Capacitance (Note 1) | C _T | 15 | | | | | | | pF |
| Operating and Storage Temperature Range | T _j , T _{STG} | -55 to +150 | | | | | | | °C |

- Notes: 1. Measured at 1.0MHz and applied reverse voltage of 4.0 volts.
2. RoHS revision 13.2.2003. Glass and high temperature solder exemptions applied, see *EU Directive Annex Notes 5 and 7*.

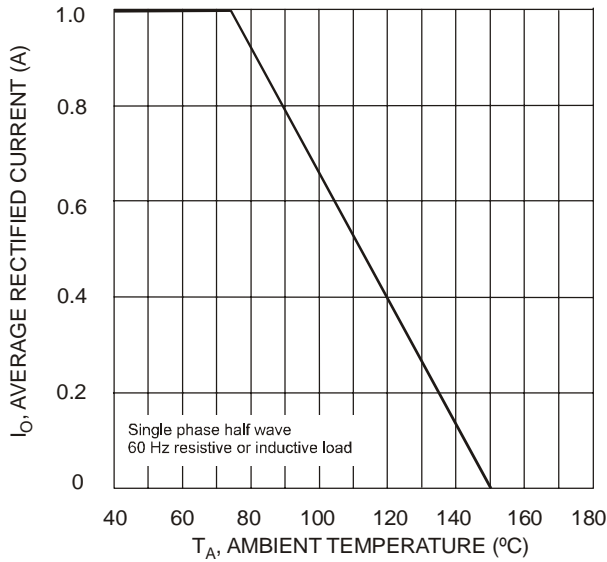


Fig. 1 Forward Current Derating Curve

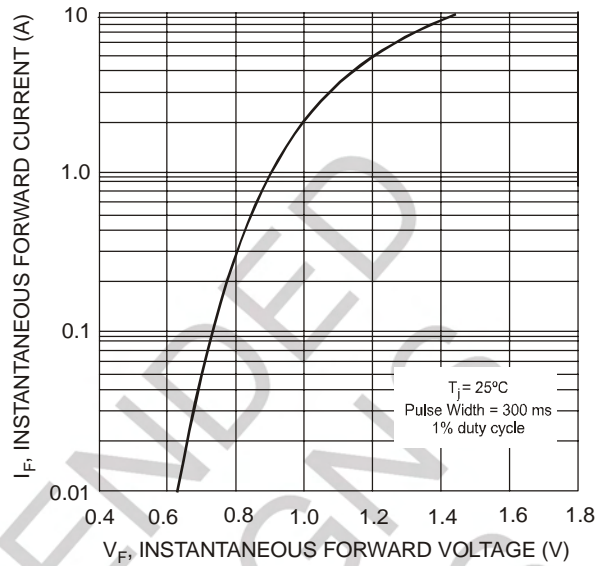


Fig. 2 Typical Forward Characteristics

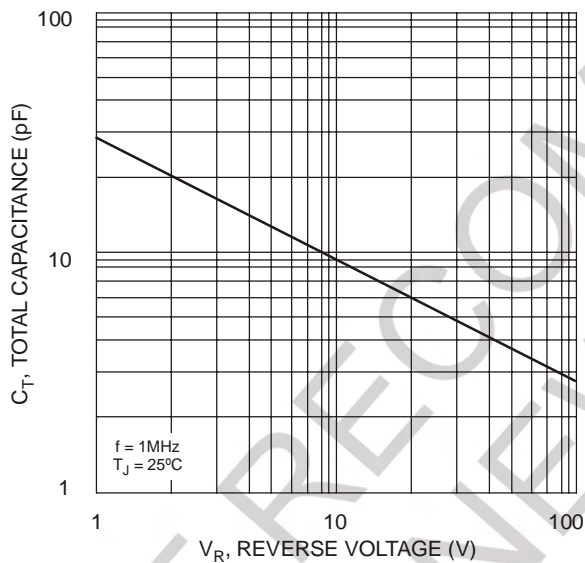


Fig. 3 Typical Total Capacitance vs. Reverse Voltage

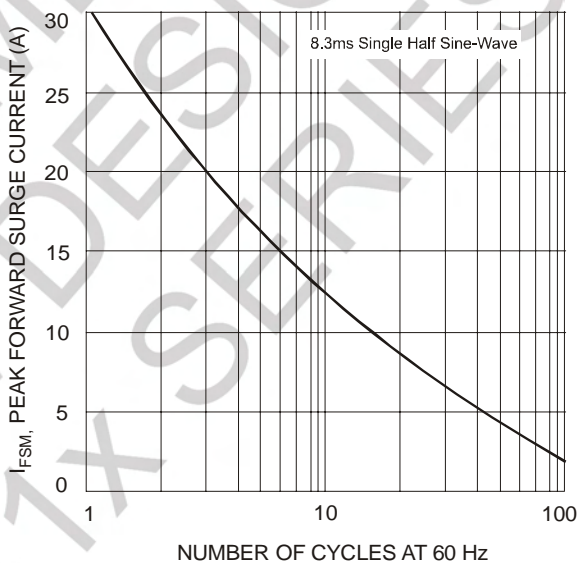


Fig. 4 Max Non-Repetitive Peak Forward Surge Current

Ordering Information

| Device | Packaging | Shipping |
|-------------|-----------|-------------------|
| DL4001-13-F | MELF | 5,000/Tape & Reel |
| DL4002-13-F | MELF | 5,000/Tape & Reel |
| DL4003-13-F | MELF | 5,000/Tape & Reel |
| DL4004-13-F | MELF | 5,000/Tape & Reel |
| DL4005-13-F | MELF | 5,000/Tape & Reel |
| DL4006-13-F | MELF | 5,000/Tape & Reel |
| DL4007-13-F | MELF | 5,000/Tape & Reel |

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