

Features and Benefits

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- General Purpose Rectification
- Silicon Epitaxial Planar Construction
- **Lead Free Finish, RoHS Compliant (Note 1)**

Mechanical Data

- Case: MiniMELF
- Case Material: Glass: UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Finish - Sn97.5Ag2.5. Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Marking: Cathode Band Only
- Weight: 0.05 grams (approximate)

Ordering Information (Note 2)

| Part Number | Case | Packaging |
|-------------|----------|--------------------------|
| LL4148-13 | MiniMELF | 10K/Tape & Reel, 13-inch |
| LL4448-7 | MiniMELF | 2.5K/Tape & Reel, 7-inch |

Notes: 1. EU Directive 2002/95/EC (RoHS) & 2011/65/EU (RoHS 2). All applicable RoHS exemptions applied.
2. For Packaging Details, go to our website at <http://www.diodes.com>.

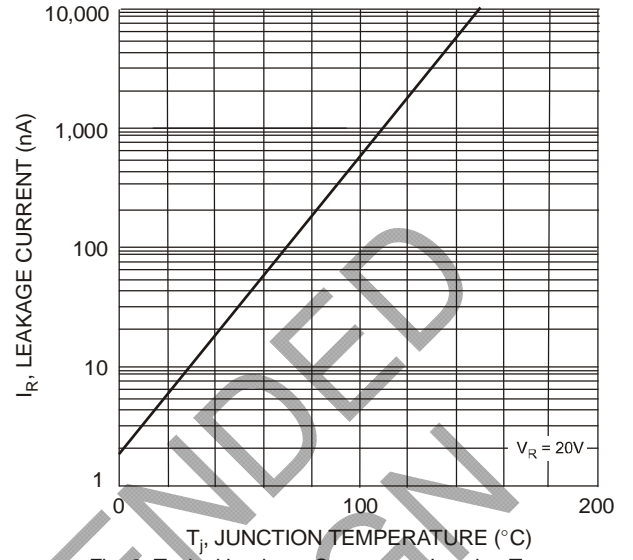
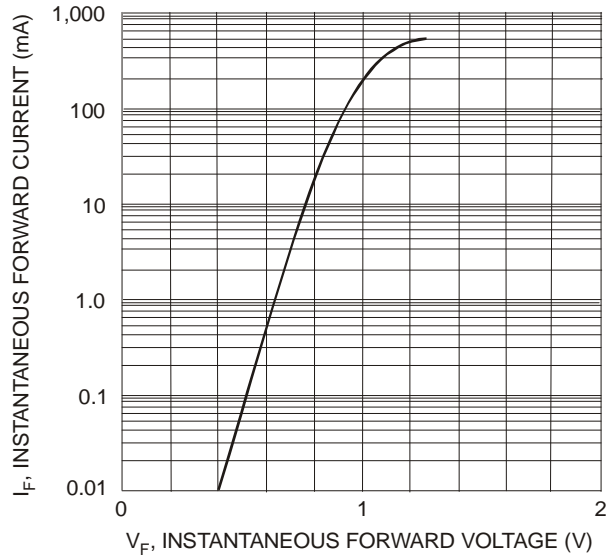
Maximum Ratings @T_A = 25°C unless otherwise specified

| Characteristic | Symbol | LL4148 | LL4448 | Unit |
|--|-----------------------------------|-------------|--------|-------|
| Non-Repetitive Peak Reverse Voltage | V _{RM} | 100 | | V |
| Peak Repetitive Reverse Voltage | V _{RRM} | | | |
| Working Peak Reverse Voltage | V _{RWM} | 75 | | V |
| DC Blocking Voltage | V _R | | | |
| RMS Reverse Voltage | V _{R(RMS)} | 53 | | V |
| Forward Continuous Current (Note 3) | I _{FM} | 300 | 500 | mA |
| Average Rectified Output Current (Note 3) | I _O | 150 | | mA |
| Non-Repetitive Peak Forward Surge Current | I _{FSM} | @ t = 1.0s | 1.0 | A |
| | | @ t = 1.0µs | 2.0 | |
| Power Dissipation (Note 3) | P _D | 500 | | mW |
| Derate above 25°C | | 1.68 | | mW/°C |
| Thermal Resistance, Junction to Ambient Air (Note 3) | R _{θJA} | 300 | | K/W |
| Operating and Storage Temperature Range | T _J , T _{STG} | -65 TO +175 | | °C |

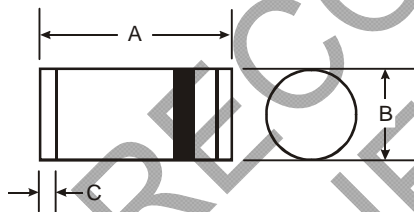
Electrical Characteristics @T_A = 25°C unless otherwise specified

| Characteristic | Symbol | Min | Max | Unit | Test Condition | |
|---------------------------------------|-----------------|--------|------|------|--|------------------------|
| Forward Voltage | V _F | LL4148 | - | 1.0 | V | I _F = 10mA |
| | | LL4448 | 0.62 | 0.72 | | I _F = 5.0mA |
| | | LL4448 | - | 1.0 | | I _F = 100mA |
| Maximum Peak Reverse Current (Note 4) | I _{RM} | - | 5.0 | µA | V _R = 75V | |
| | | - | 50 | µA | V _R = 75V, T _J = 150°C | |
| | | - | 30 | µA | V _R = 75V, T _J = 150°C | |
| | | - | 25 | nA | V _R = 75V | |
| Capacitance | C _J | - | 4.0 | pF | V _R = 0, f = 1.0MHz | |
| Reverse Recovery Time | t _{rr} | - | 4.0 | ns | I _F = 10mA, to I _R = 1.0mA, V _R = 6.0V, R _L = 100Ω | |

Notes: 3. Valid provided that device terminals are kept at ambient Temperature.
4. Short duration pulse test used to minimize self-heating effect.



Package Outline Dimensions



| MiniMELF | | |
|----------------------|------|------|
| Dim | Min | Max |
| A | 3.30 | 3.70 |
| B | 1.30 | 1.60 |
| C | 0.28 | 0.50 |
| All Dimensions in mm | | |

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