

LL4448

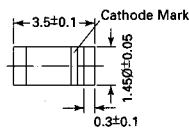
Silicon Epitaxial Planar Diode

fast switching diode in MiniMELF case especially suited for automatic surface mounting.

Identical electrically to standard JEDEC 1N4448

These diodes are delivered taped.

Details see "Taping".



Glass case MiniMELF

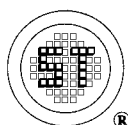
Weight approx. 0.05g

Dimensions in mm

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

| | Symbol | Value | Unit |
|---|-----------|-------------------|------------------|
| Reverse Voltage | V_R | 75 | V |
| Peak Reverse Voltage | V_{RM} | 100 | V |
| Rectified Current (Average) Half Wave Rectification with Resist. Load at $T_{amb} = 25\text{ }^\circ\text{C}$ and $f \geq 50\text{ Hz}$ | I_o | 150 ¹⁾ | mA |
| Surge Forward Current at $t < 1\text{ s}$ and $T_j = 25\text{ }^\circ\text{C}$ | I_{FSM} | 500 | mA |
| Power Dissipation at $T_{amb} = 25\text{ }^\circ\text{C}$ | P_{tot} | 500 ¹⁾ | mW |
| Junction Temperature | T_j | 175 | $^\circ\text{C}$ |
| Storage Temperature Range | T_s | -65 to + 175 | $^\circ\text{C}$ |

¹⁾ Valid provided that electrodes are kept at ambient temperature



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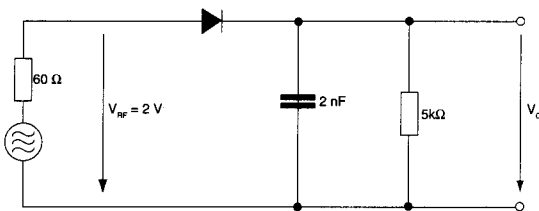


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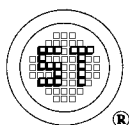
Characteristics at $T_j = 25\text{ }^\circ\text{C}$

| | Symbol | Min. | Typ. | Max. | Unit |
|--|-------------------------|-------------|-------------|--------------------|--------------------------------------|
| Forward Voltage at $I_F = 5\text{ mA}$ at $I_F = 100\text{ mA}$ | V_F V_F | 0.62 - | - - | 0.72 1 | V V |
| Leakage Current at $V_R = 20\text{ V}$ at $V_R = 75\text{ V}$ at $V_R = 20\text{ V}, T_j = 150\text{ }^\circ\text{C}$ | I_R I_R I_R | - - - | - - - | 25 5 50 | nA μA μA |
| Reverse Breakdown Voltage tested with $100\text{ }\mu\text{A}$ Pulses | $V_{(BR)R}$ | 100 | - | - | V |
| Capacitance at $V_F = V_R = 0$ | C_{tot} | - | - | 4 | pF |
| Reverse Recovery Time from $I_F = 10\text{ mA}$ to $I_R = 1\text{ mA}$, $V_R = 6\text{ V}$, $R_L = 100\text{ }\Omega$, | t_{rr} | - | - | 4 | ns |
| Thermal Resistance Junction to Ambient Air | R_{thA} | - | - | 0.35 ¹⁾ | K/mW |
| Rectification Efficiency at $f = 100\text{ MHz}$, $V_{RF} = 2\text{ V}$ | η_V | 0.45 | - | - | ns |

¹⁾ Valid provided that electrodes are kept at ambient temperature



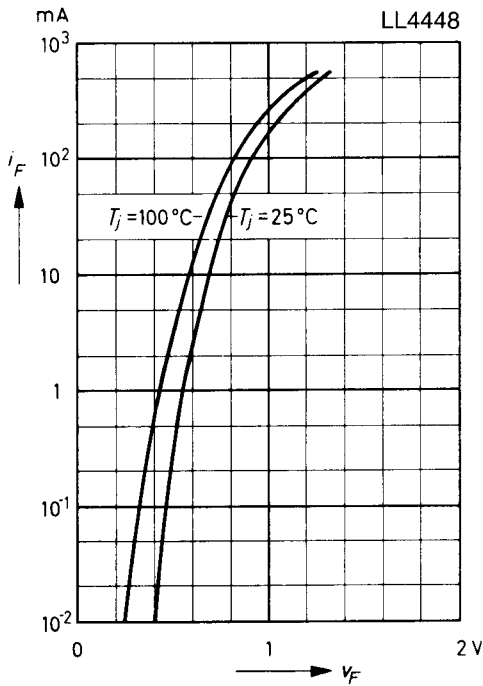
Rectification Efficiency Measurement Circuit



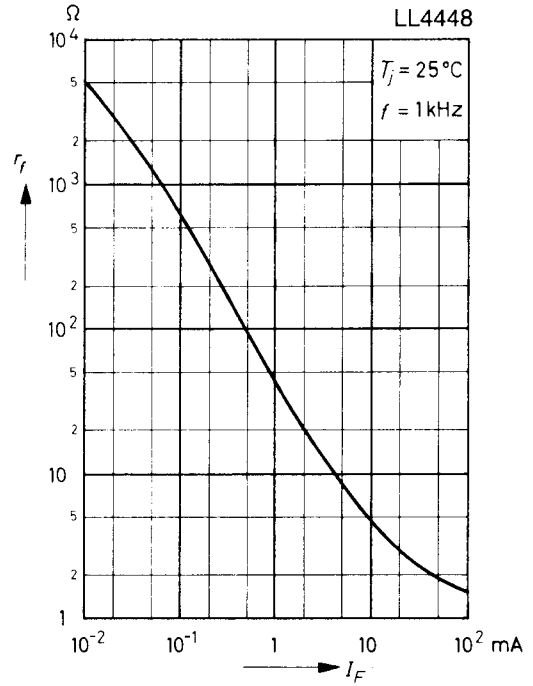
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Forward characteristics

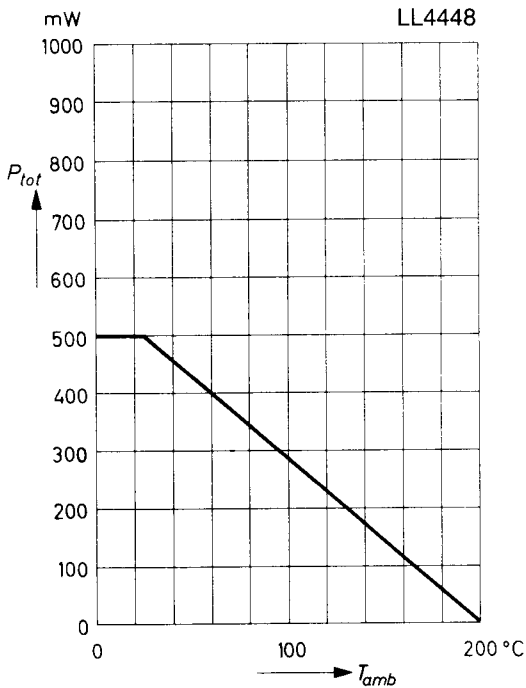


Dynamic forward resistance versus forward current

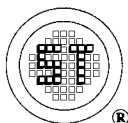
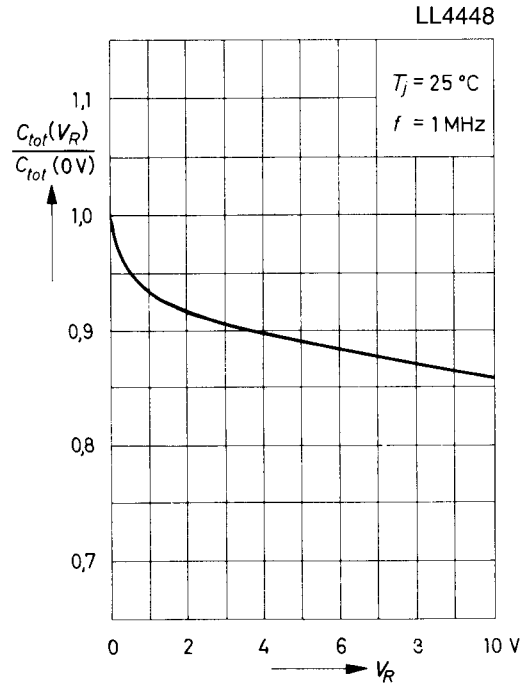


Admissible power dissipation versus ambient temperature

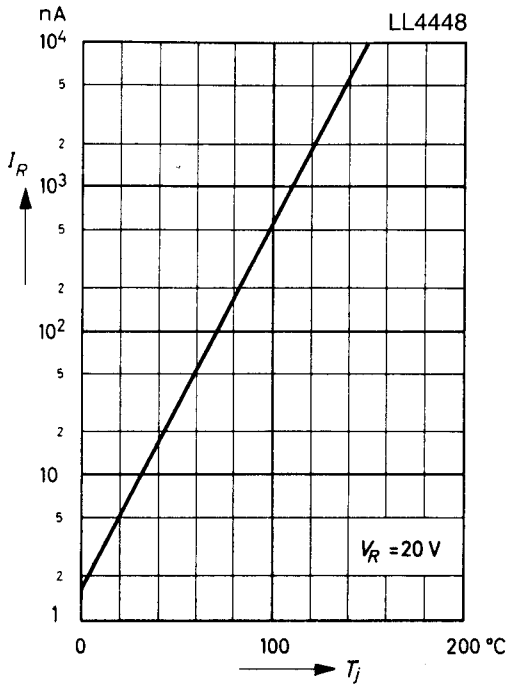
Valid provided that electrodes are kept at ambient temperature



Relative capacitance versus reverse voltage



Leakage current versus junction temperature



Admissible repetitive peak forward current versus pulse duration

Valid provided that electrodes are kept at ambient temperature

