



GOOD-ARK

LL4448

SILICON EPITAXIAL PLANAR DIODE

Features

Silicon Epitaxial Planar Diode

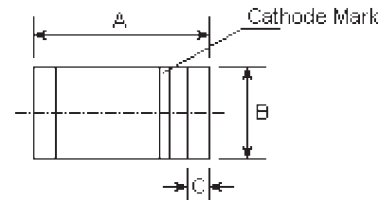
fast switching diode in MiniMELF case especially suited for automatic insertion.

Identical electrically to standard 1N4448

These diode are delivered taped.
Details see "Taping".

Weight approx. : 0.05g

MiniMELF



| DIMENSIONS | | | | | |
|------------|--------|-------|------|------|------|
| DIM | inches | | mm | | Note |
| | Min. | Max. | Min. | Max. | |
| A | 0.134 | 0.142 | 3.4 | 3.6 | |
| B | 0.055 | 0.059 | 1.40 | 1.50 | φ |
| C | 0.008 | 0.016 | 0.2 | 0.4 | |

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

| | Symbols | Values | Units |
|--------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------|--------------------|
| Reverse voltage | V_R | 75 | Volts |
| Peak reverse voltage | V_{RM} | 100 | Volts |
| Rectified current (Average) Half wave rectification with Resist. Load at $T_{amb}=25^{\circ}\text{C}$ and $f \geq 50\text{Hz}$ | I_o | 150 ⁽¹⁾ | mA |
| Surge forward current at $t < 1\text{s}$ and $T_j = 25^{\circ}\text{C}$ | I_{FSM} | 500 | mA |
| Power dissipation at $T_{amb} = 25^{\circ}\text{C}$ | P_{tot} | 500 ⁽¹⁾ | mW |
| Junction Temperature | T_j | 175 | $^{\circ}\text{C}$ |
| Storage temperature range | T_s | -65 to +175 | $^{\circ}\text{C}$ |

Note:

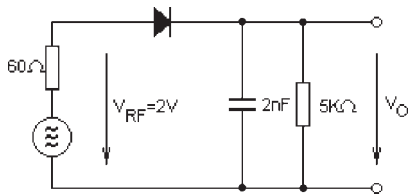
(1) Valid provided that electrodes are kept at ambient temperature

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

| | Symbols | Min. | Typ. | Max. | Units |
|----------------------------------------------------------------------------------------------------------------|-------------------------|-------------|-------------|--------------------|----------------|
| Forward voltage at $I_F=5\text{mA}$ at $I_F=100\text{mA}$ | V_F V_F | 0.62 - | - - | 0.72 1 | Volt Volt |
| Leakage current at $V_R=20\text{V}$ at $V_R=75\text{V}$ at $V_R=20\text{V}$, $T_j=150^\circ\text{C}$ | I_R I_R I_R | - - - | - - - | 25 5 50 | nA uA uA |
| Reverse breakdown voltage tested with 100uA pulses | $V_{(BR)R}$ | 100 | - | - | Volts |
| Capacitance at $V_F=V_R=0$ | C_{tot} | - | - | 4 | μF |
| Reverse recovery time from $I_F=10\text{mA}$ to $I_R=1\text{mA}$, $V_R=6\text{V}$, $R_L=100\Omega$ | 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 | - | - | - |

Note:

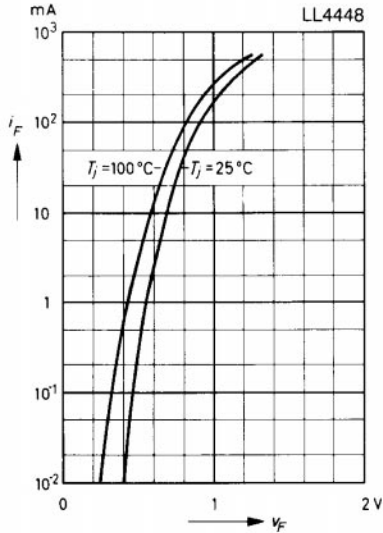
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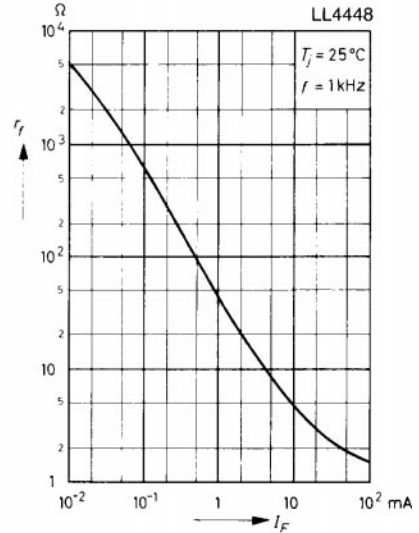
Rectification efficiency measurement circuit

RATINGS AND CHARACTERISTIC CURVES

Forward characteristics

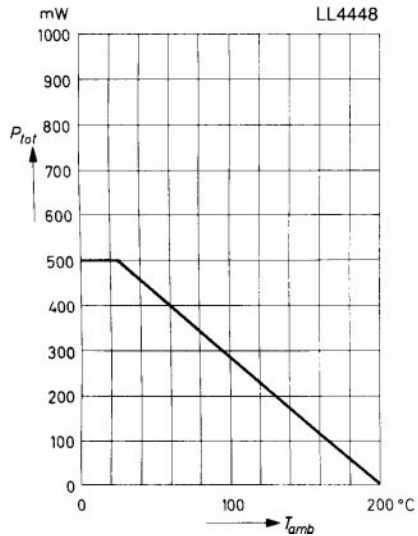


Dynamic forward resistance versus forward current

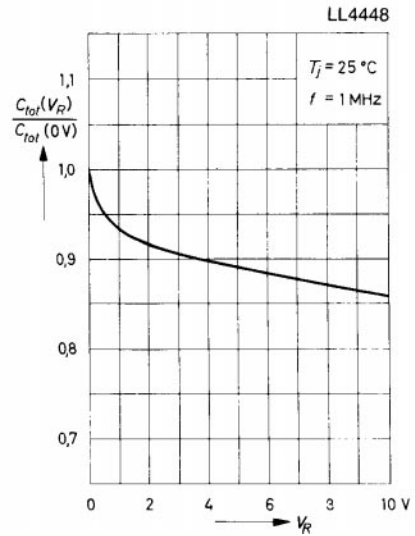


Admissible power dissipation versus ambient temperature

Valid provided that electrodes are kept at ambient temperature

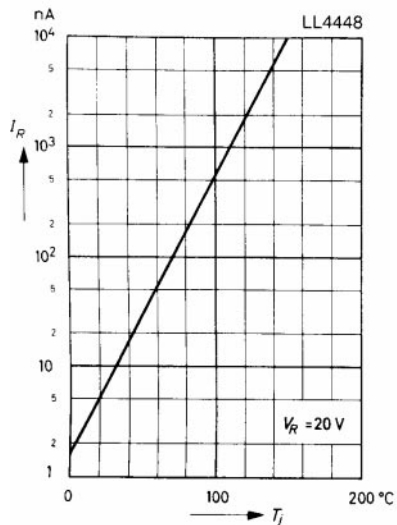


Relative capacitance versus reverse voltage



RATINGS AND CHARACTERISTIC CURVES

Leakage current versus junction temperature



Admissible repetitive peak forward current versus pulse duration

Valid provided that electrodes are kept at ambient temperature

