

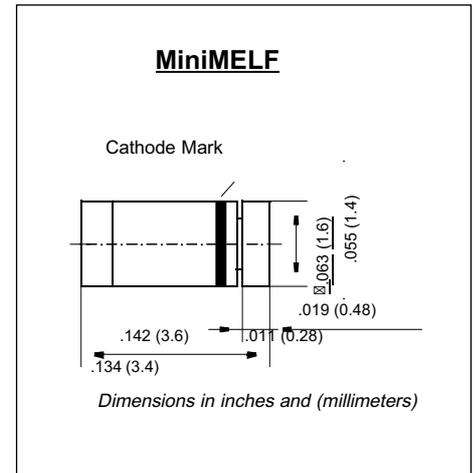
FAST SWITCHING DIODES

FEATURES

- Silicon Epitaxial Planar Diode
- Fast switching diode
- This diode is also available in other case styles including: the DO-35 case with the type designation 1N4148, the SOD-23 case with the type designation 1N4148W, and the SOT-23 case with the type designation

MECHANICAL DATA

- Case: MiniMELF
- Weight: approx: 0.05gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified

Parameter	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_0	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	°C
Storage Temperature Range	T_S	-65 to +175	°C

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

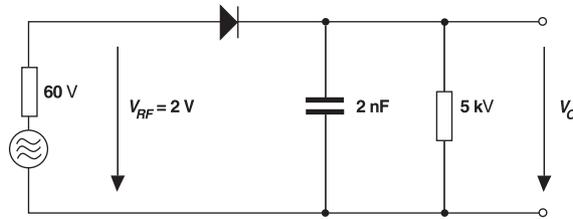
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ELECTRICAL CHARACTERISTICS

- Ratings at 25 °C ambient temperature unless otherwise specified

Parameter	Symbol	Min.	Typ.	Max.	Unit
Forward Voltage at $I_F = 5$ mA at $I_F = 100$ mA	V_F V_F	0.62 –	– –	0.72 1	V V
Leakage Current at $V_R = 20$ V at $V_R = 75$ V at $V_R = 20$ V, $T_j = 150$ °C	I_R I_R I_R	– – –	– – –	25 5 50	nA μ A μ A
Capacitance at $V_F = V_R = 0$	C_{tot}	–	–	4	pF
Reverse Recovery Time from $I_F = 10$ mA to $I_R = 1$ mA, $V_R = 6$ V, $R_L = 100$ Ω	t_{rr}	–	–	4	ns
Thermal Resistance Junction to Ambient Air	R_{thJA}	–	–	0.35 ¹⁾	K/mW
Rectification Efficiency at $f = 100$ MHz, $V_{RF} = 2$ V	η_v	0.45	–	–	–

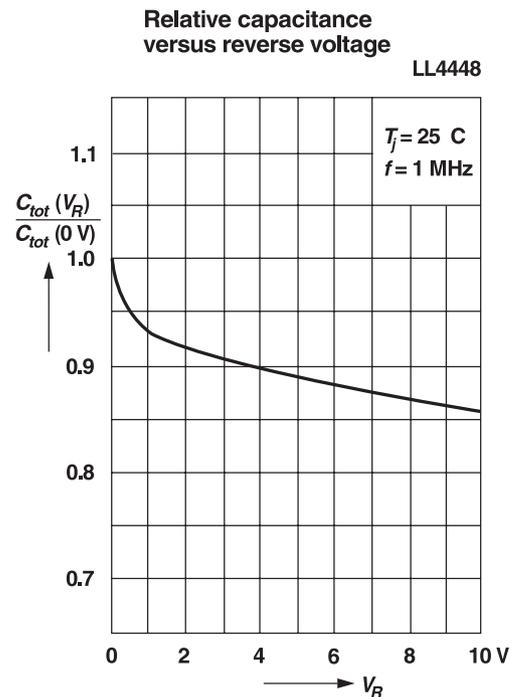
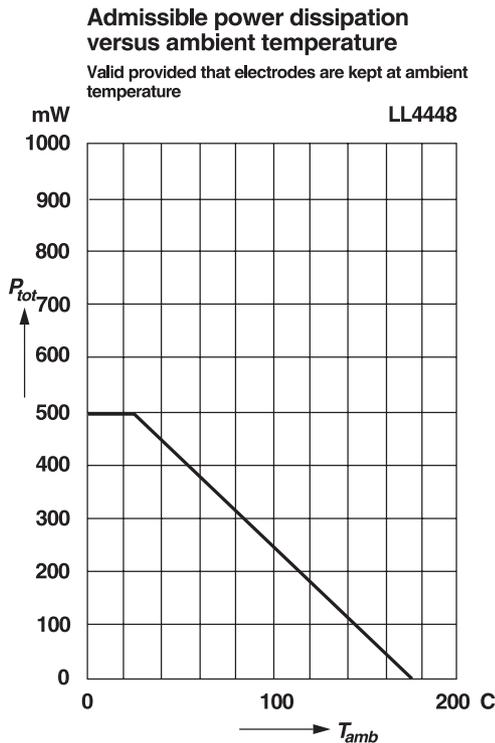
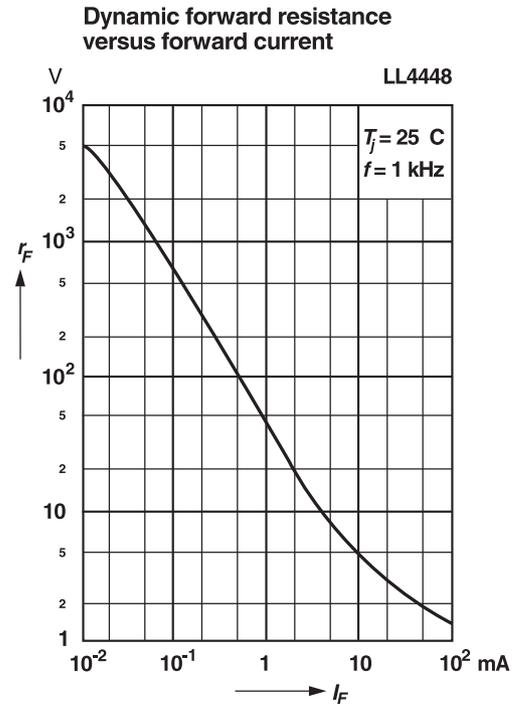
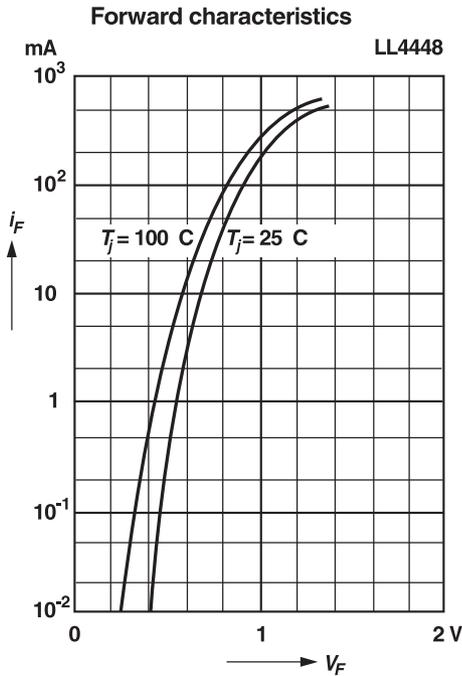
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Rectification Efficiency Measurement Circuit

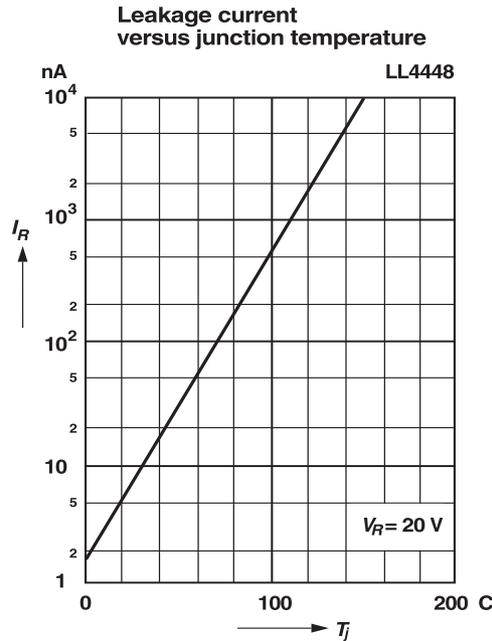
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RATINGS AND CHARACTERISTIC CURVES LL4448



FAST SWITCHING DIODES

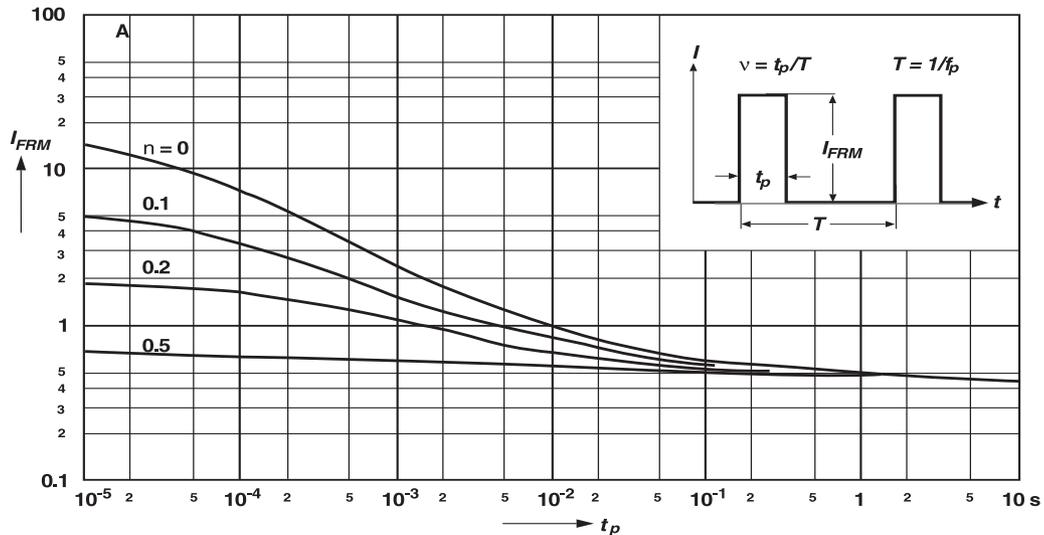
RATINGS AND CHARACTERISTIC CURVES LL4448



Admissible repetitive peak forward current versus pulse duration

Valid provided that electrodes are kept at ambient temperature

LL4448



Disclaimer

All product, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise.