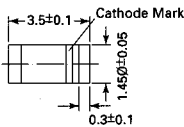


Silicon Expitaxial Planar Diode

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

Identical electrically to standard JEDEC 1N4448



Glass case MiniMELF

Weight approx. 0.05g

Dimensions in mm

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

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 <sup>1)</sup>	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 <sup>1)</sup>	mW
Junction Temperature	$T_j$	175	$^{\circ}\text{C}$
Storage Temperature Range	$T_s$	-65 to + 175	$^{\circ}\text{C}$

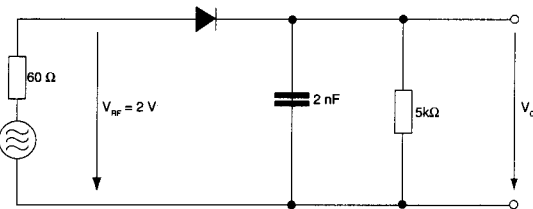
<sup>1)</sup> Valid provided that electrodes are kept at ambient temperature



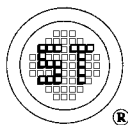
Characteristics at T<sub>j</sub> = 25 °C

	Symbol	Min.	Typ.	Max.	Unit
Forward Voltage at I <sub>F</sub> = 5 mA at I <sub>F</sub> = 100 mA	V <sub>F</sub> V <sub>F</sub>	0.62 -	- -	0.72 1	V V
Leakage Current at V <sub>R</sub> = 20 V at V <sub>R</sub> = 75 V at V <sub>R</sub> = 20 V, T <sub>j</sub> = 150 °C	I <sub>R</sub> I <sub>R</sub> I <sub>R</sub>	- - -	- - -	25 5 50	nA μA μA
Reverse Breakdown Voltage tested with 100 μA Pulses	V <sub>(BR)R</sub>	100	-	-	V
Capacitance at V <sub>F</sub> = V <sub>R</sub> = 0	C <sub>tot</sub>	-	-	4	pF
Reverse Recovery Time from I <sub>F</sub> = 10 mA to I <sub>R</sub> = 1 mA, V <sub>R</sub> = 6 V, R <sub>L</sub> = 100 Ω,	t <sub>rr</sub>	-	-	4	ns
Thermal Resistance Junction to Ambient Air	R <sub>thA</sub>	-	-	0.35 <sup>1)</sup>	K/mW
Rectification Efficiency at f = 100 MHz, V <sub>RF</sub> = 2 V	η <sub>v</sub>	0.45	-	-	ns

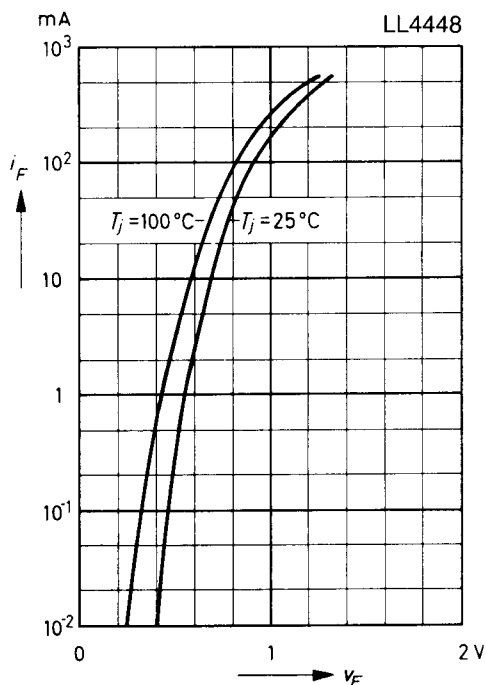
<sup>1)</sup> Valid provided that electrodes are kept at ambient temperature



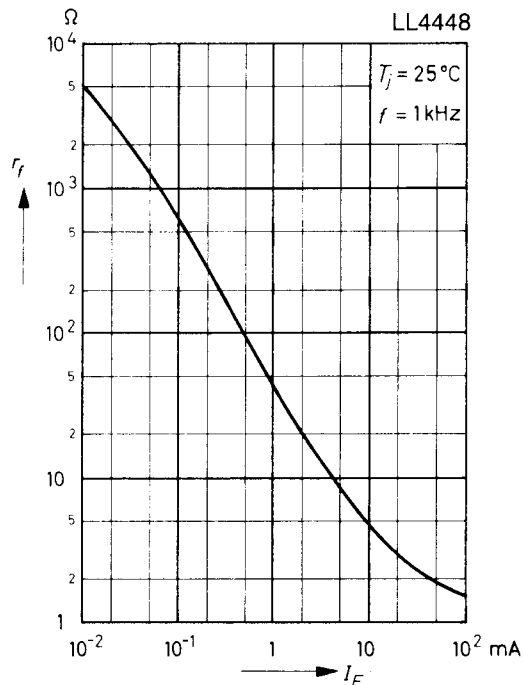
Rectification Efficiency Measurement Circuit



**Forward characteristics**

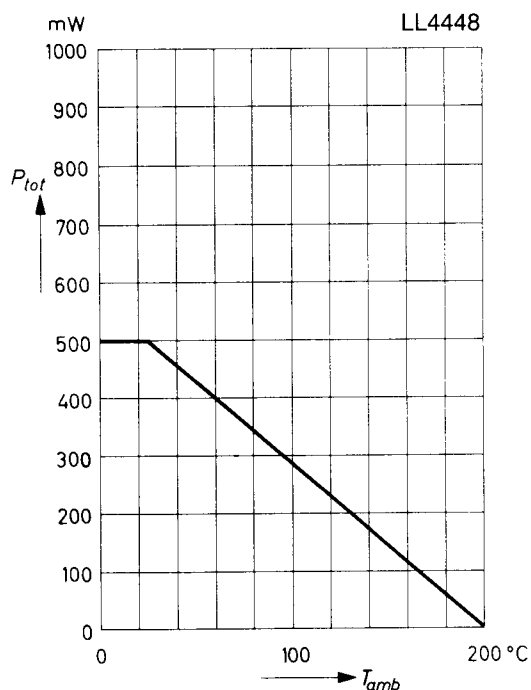


**Dynamic forward resistance versus forward current**

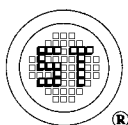
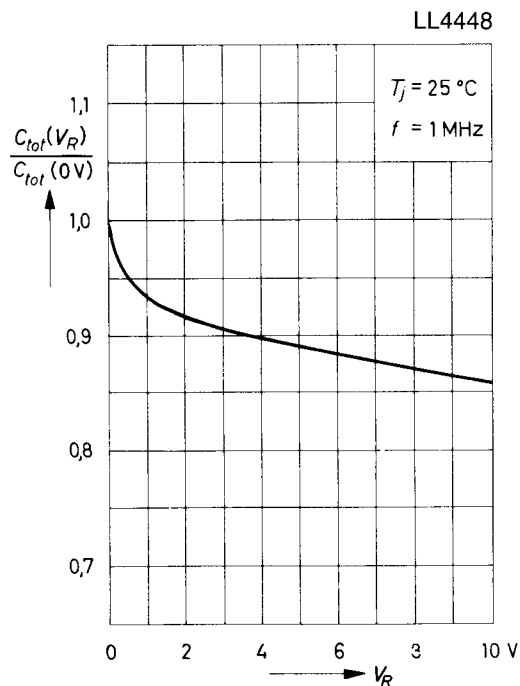


**Admissible power dissipation versus ambient temperature**

Valid provided that electrodes are kept at ambient temperature



**Relative capacitance versus reverse voltage**

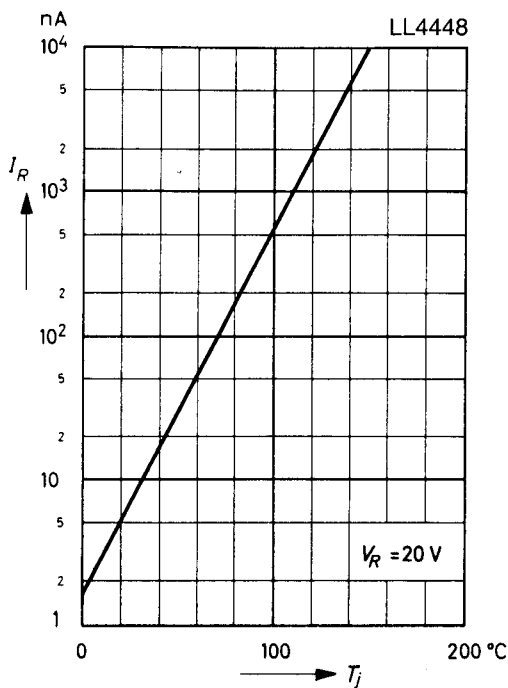


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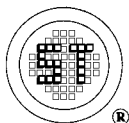
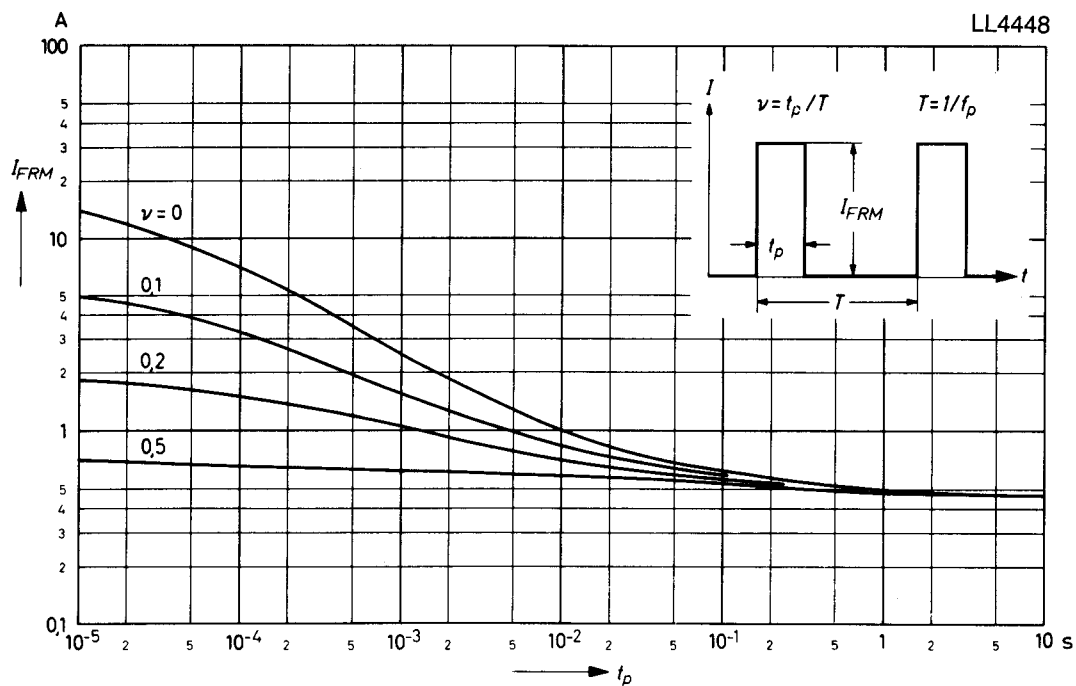


**Leakage current  
versus junction temperature**



**Admissible repetitive peak forward current versus pulse duration**

Valid provided that electrodes are kept at ambient temperature



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