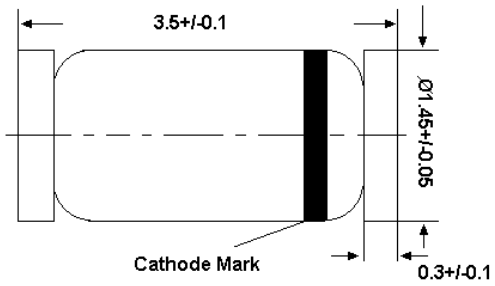
LL4148

SILICON EPITAXIAL PLANAR DIODE

fast switching diode in MiniMELF case especially suited for automatic surface mounting.
Identical electrically to standard JEDEC 1N4148

These diodes are delivered taped.
Details see “Taping”.



Glass case MiniMELF

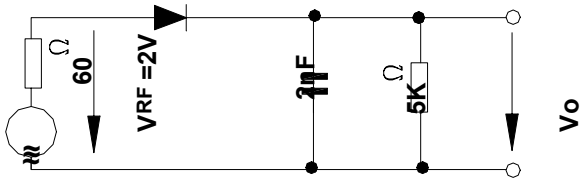
Weight approx.0.05g
Dimensions in mm

Absolute Maximum Ratings (T_a = 25°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°C and f 50 H_Z	I_O	150[1)]	mA
Surge Forward Current at t<1s and T_j = 25°C	I_{FSM}	500	mA
Power Dissipation	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.			

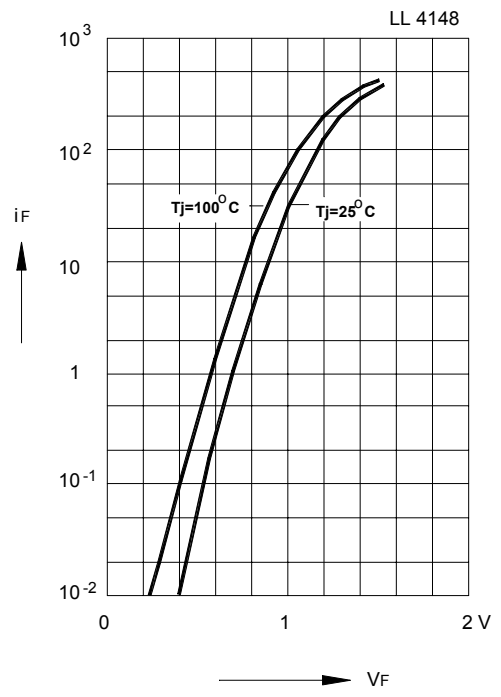
Characteristics at $T_j = 25^oC$

	Symbol	Min.	Typ.	Max.	Unit
Forward Voltage at I_F = 10mA	V_F	-	-	1	V
Leakage Current at V_R = 20V at V_R = 75V at V_R = 20V, T_j = 150°C	 I_R I_R I_R	 - - -	 - - -	 25 5 50	 nA µA µA
Reverse Breakdown Voltage tested with 100µA Pulses	$V_{(BR)R}$	100	-	-	V
Capacitance at $V_F = V_R = 0$	C_{tot}	-	-	4	pF
Voltage Rise when Switching ON tested with 50 mA Forward Pulses tp = 0.1 s, Rise Time<30ns, fp = 5 to 100 kHz	V_{fr}	-	-	2.5	V
Reverse Recovery Time from I_F = 10mA to I_R = 1mA, V_R = 6V, R_L = 100Ω	t_{rr}	-	-	4	ns
Thermal Resistance Junction to Ambient Air	R_{thA}	-	-	0.35[1)]	K/mW
Rectification Efficiency at f = 100MHz, V_{RF} = 2V	η_v	0.45	-	-	-
[1)] Valid provided that electrodes are kept at ambient temperature.					

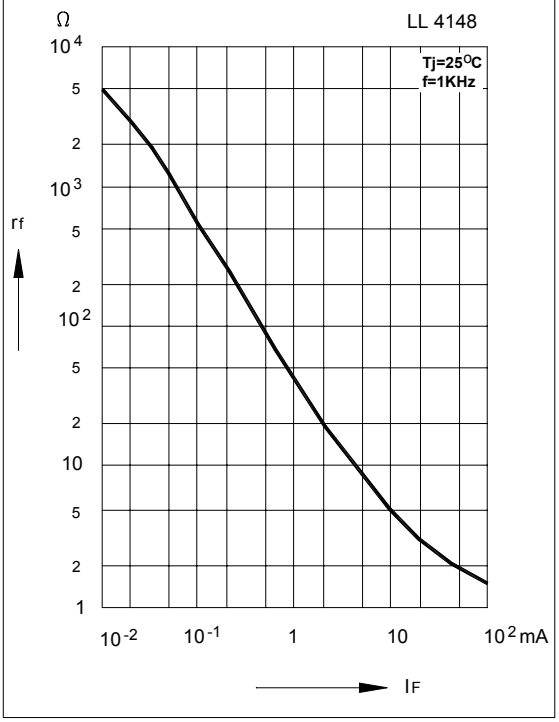


Rectification Efficiency Measurement Circuit

Forward characteristics

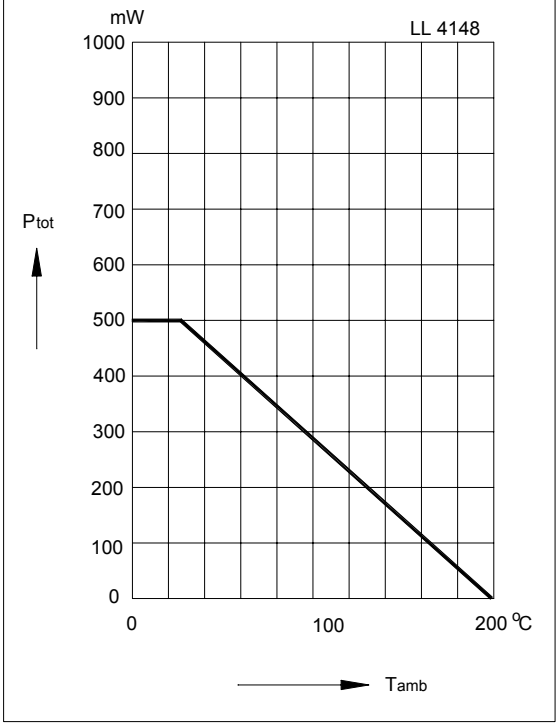


Dynamic forward resistance versus forward current

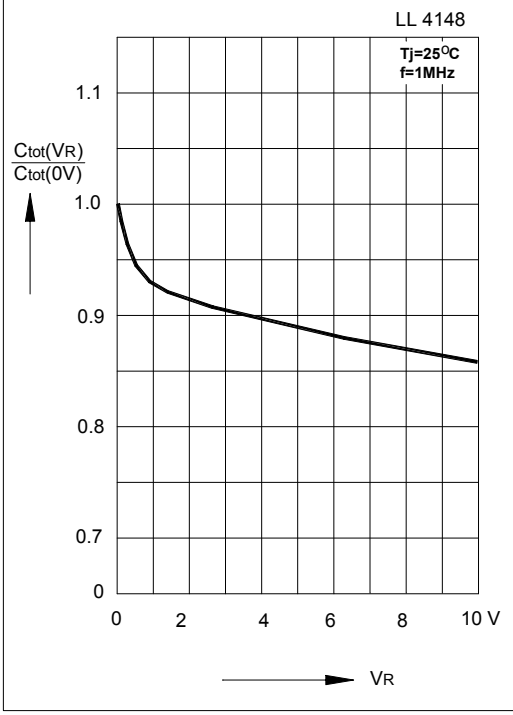


Admissible power dissipation versus ambient temperature

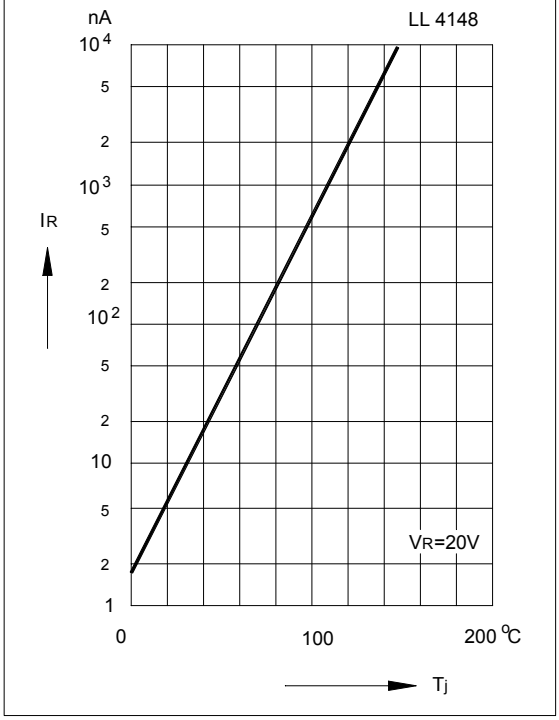
Valid provided that electrodes are kept at ambient temperature



Relative capacitance versus reverse voltage



Leakage current versus junction temperature



Admissible repetitive peak forward current versus pulse duratin
Valid provided that electrodes are kept at ambient temperature