EVVOSEMI®
THINK CHANGE DO

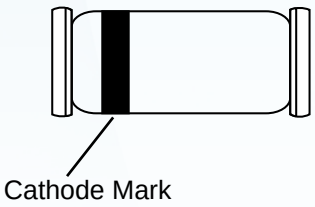
ESD TVS MOS LDO Diode Sensor DC-DC

Product Specification

Domestic Part Number	LL4148
Overseas Part Number	LL4148
Equivalent Part Number	LL4148

Silicon Epitaxial Planar Switching Diode

■ Fast switching diode in MiniMELF case especially suited for automatic surface mounting



■ **Simplified outline(LL-34/SOD-80)**

■ Absolute Maximum Ratings (T_a = 25℃)

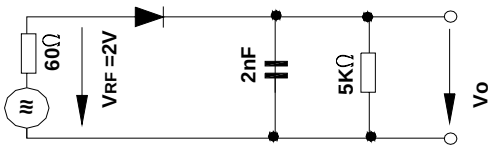
Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	75	V
Average Rectified Forward Current	$I_{F(AV)}$	200	mA
Non-repetitive Peak Forward Surge Current at t = 1 s at t = 1 ms at t = 1 μs	I_{FSM}	0.5 1 4	A
Power Dissipation	P_{tot}	500 [1)]	mW
Junction Temperature	T_j	175	℃
Storage Temperature Range	T_{stg}	- 65 to + 175	℃

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

■ Characteristics at T_a = 25℃

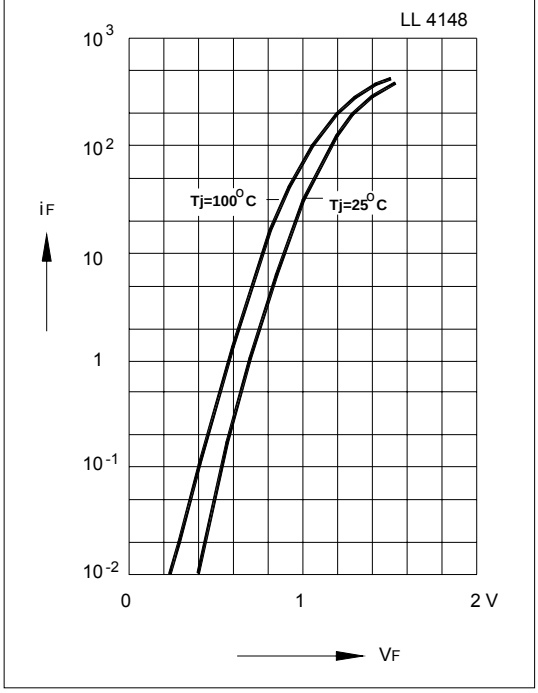
Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage tested with 100 μA Pulses	$V_{(BR)R}$	100	-	V
Forward Voltage at I_F = 10 mA	V_F	-	1	V
Leakage Current at V_R = 20 V at V_R = 75 V at V_R = 20 V, T_j = 150℃	 I_R I_R I_R	 - - -	 25 5 50	 nA μA μA
Capacitance at V_R = 0, f = 1 MHz	C_{tot}	-	4	pF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

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

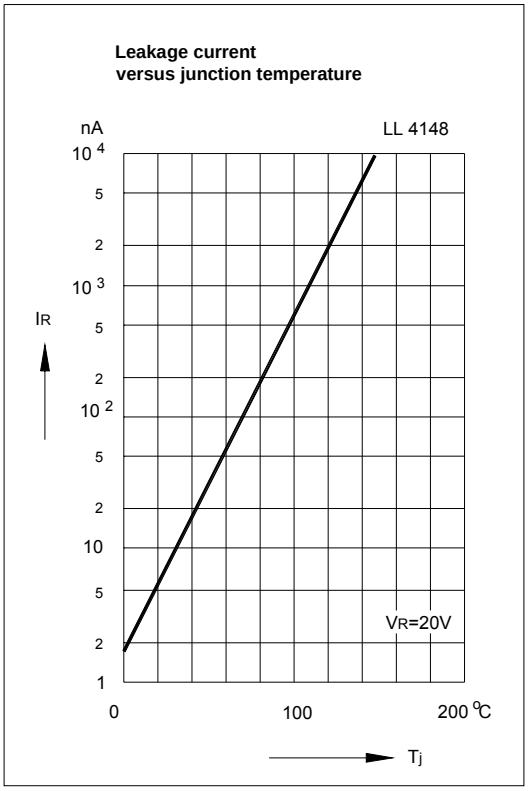


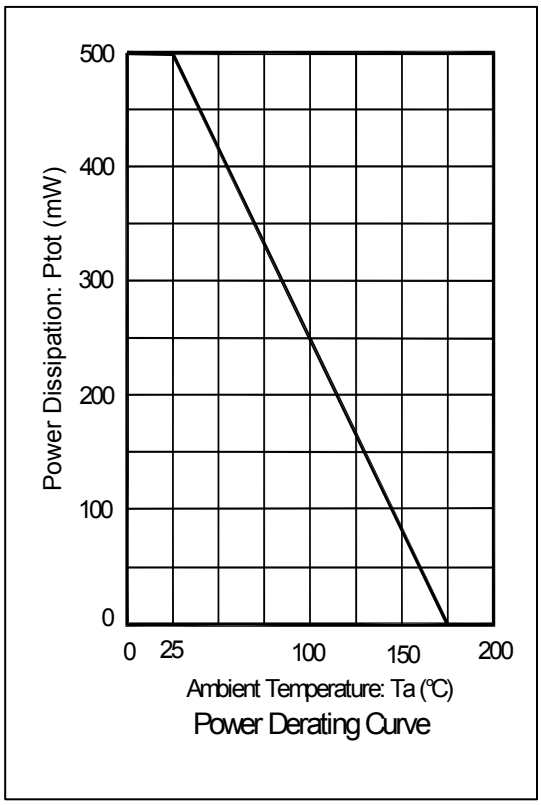
Rectification Efficiency Measurement Circuit

Forward characteristics

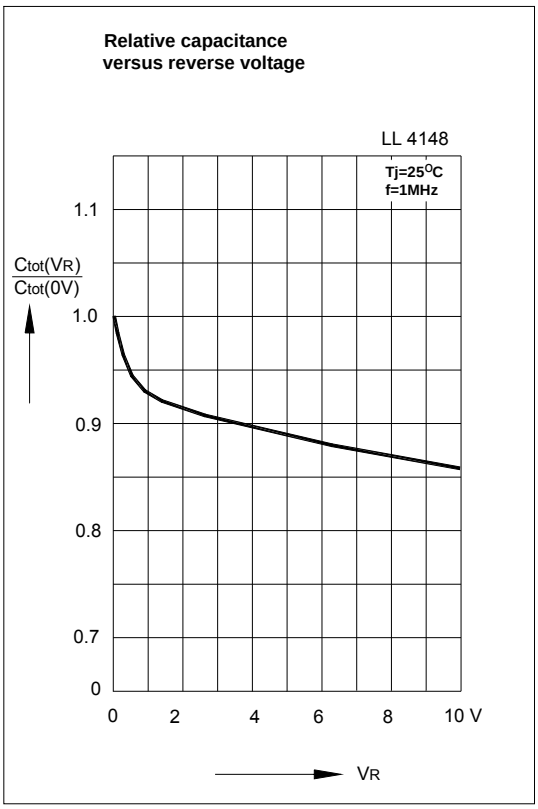


Leakage current versus junction temperature

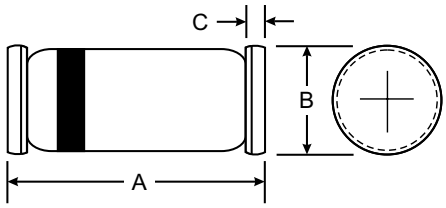


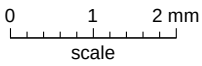


Relative capacitance versus reverse voltage



■ LL-34/SOD-80





DIMENSIONS (mm are the original dimensions)

UNIT	A	B	C
mm	3.30 3.70	1.30 1.60	0.28 0.50

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