



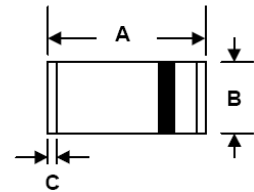
# LL4148

## Silicon Epitaxial Planar Switching Diode

### Features

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

LL-34



MiniMELF		
Dim	Min.	Max.
A	3.30	3.60
B	1.40	1.50
C	0.25	0.33
All Dimension in mm		

### Absolute Maximum Ratings at $T_A = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	100	V
Reverse Voltage	$V_R$	75	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	200	mA
Non-repetitive Peak Forward Surge Current at $t = 1\text{ s}$ at $t = 1\text{ ms}$ at $t = 1\text{ }\mu\text{s}$	$I_{FSM}$	0.5 1 4	A
Maximum Power Dissipation <sup>Note1</sup>	$P_D$	500	mW
Junction Temperature	$T_J$	175	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65 to +175	$^\circ\text{C}$

Note1: Valid provided that electrodes are kept at ambient temperature.



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

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100\text{ }\mu\text{A}$	$V_{(BR)R}$	100	--	V
Forward Voltage at $I_F = 10\text{ mA}$	$V_F$	--	1	V
Peak Reverse Current at $V_R = 20\text{ V}$ at $V_R = 75\text{ V}$ at $V_R = 20\text{ V}, T_J = 150^\circ\text{C}$	$I_R$	-- -- --	25 5 50	nA $\mu\text{A}$ $\mu\text{A}$
Total Capacitance at $V_R = 0\text{ V}, f = 1\text{ MHz}$	$C_T$	--	4	pF
Voltage Rise When Switching On Tested with 50 mA Forward Pulses $t_p = 0.1\text{ s}$ , Rise Time < 30 ns, $f_p = 5\text{ to }100\text{ KHz}$	$V_{fr}$	--	2.5	V
Reverse Recovery Time at $I_F = 10\text{ mA}$ to $I_R = 1\text{ mA}$ , $I_{rr} = 0.1 \times I_R$ , $V_R = 6\text{ V}$ , $R_L = 100\text{ }\Omega$	$T_{rr}$	--	4	nS



## Typical Characteristic Curves

