



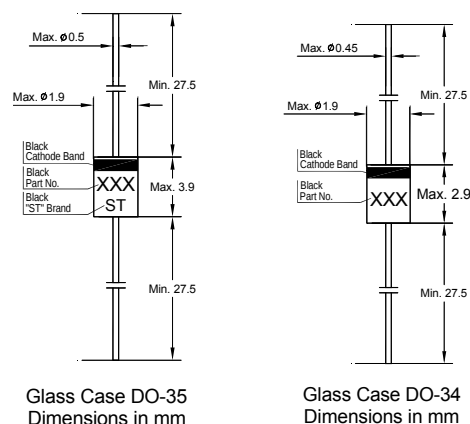
1N4148

Silicon Epitaxial Planar Switching Diode

Applications

- High-speed switching

This diode is also available in MiniMELF case with the type designation LL4148



Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

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	I_{FSM}	0.5 1 4	A
Power Dissipation	P_{tot}	500 ¹⁾	mW
Junction Temperature	T_j	200	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 200	$^\circ\text{C}$

¹⁾ Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.

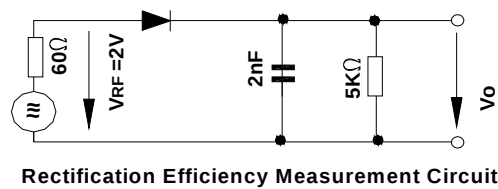


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Characteristics at T_a = 25°C

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at I _R = 100 µA at I _R = 5 µA	V _{(BR)R} V _{(BR)R}	100 75	- -	V 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°C	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, I _{rr} = 1 mA, 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	-	-

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