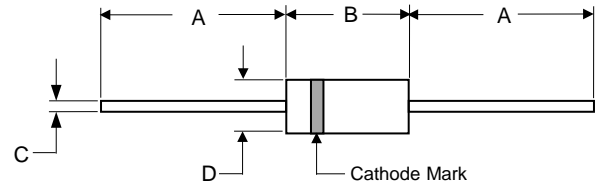


Features

- * High-speed switching
- * This diode is also available in MiniMELF case with the type designation LL4148



RoHS
COMPLIANT



DO-35				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	1.083	---	27.50	---
B	---	0.154	---	3.90
C	---	0.020	---	0.50
D	---	0.075	---	1.90

Maximum Ratings (T_A=25°C unless otherwise noted)

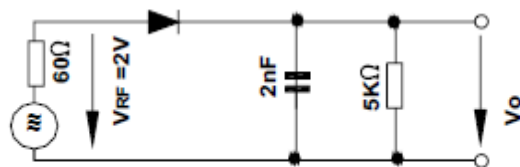
Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	75	V
Average Rectified Forward Current	$I_{F(AV)}$	200	mA
Non-repetitive Peak Forward Surge Current at t = 1 s at t = 1 ms at t = 1 μ s	I_{FSM}	0.5 1 4	A
Power Dissipation	P_{tot}	500 ¹⁾	mW
Junction Temperature	T_j	200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

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

Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at I _R = 100 μA at I _R = 5 μA	V _{(BR)R}	100 75	- -	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	- - -	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 t _p = 0.1 s, Rise Time < 30 ns, f _p = 5 to 100 KHz	V _{fr}	-	2.5	V
Reverse Recovery Time at I _F = 10 mA to I _R = 1 mA, I _{rr} = 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	-	-

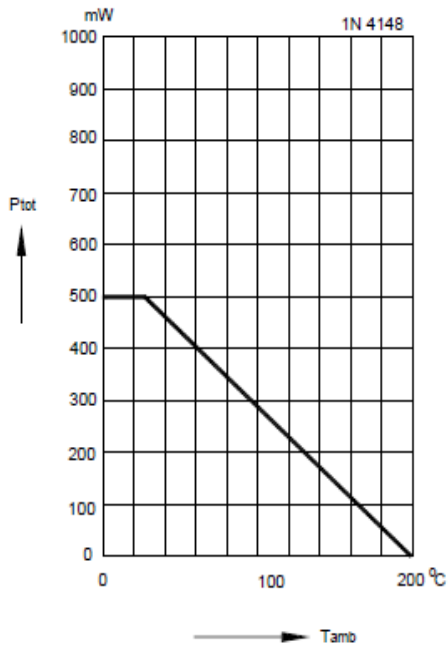
Note: 1) Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.



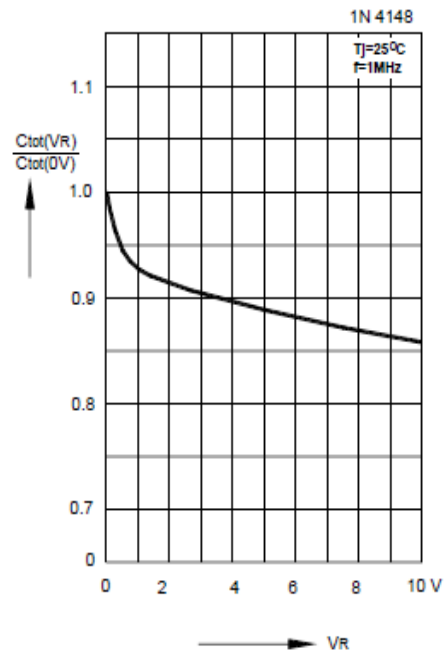
Rectification Efficiency Measurement Circuit

Ratings and Characteristic Curves

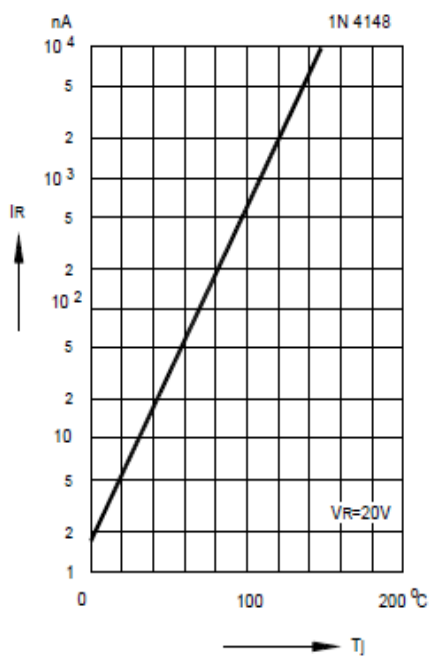
Admissible power dissipation versus ambient temperature
 Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature



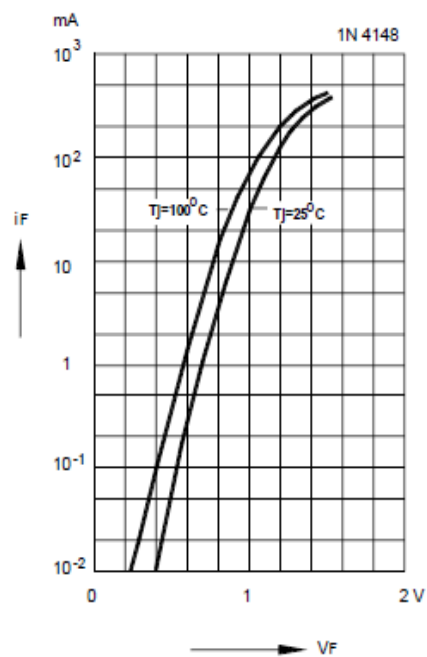
Relative capacitance versus reverse voltage



Leakage current versus junction temperature



Forward characteristics





1N4148

Silicon Epitaxial Planar Switching Diode

Ordering Information

Part No.	Package	Packing Code	Packing
1N4148	DO-35	A50	5000pcs/Ammo

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