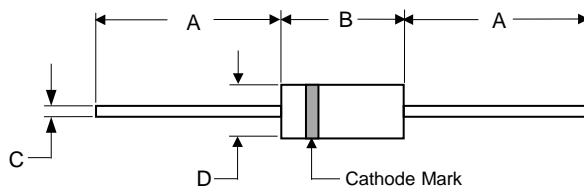


### Features

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



**RoHS**  
COMPLIANT



DO-34				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	1.083	---	27.50	---
B	---	0.114	---	2.90
C	---	0.018	---	0.45
D	---	0.075	---	1.90

### Maximum Ratings (T<sub>A</sub>=25°C unless otherwise noted)

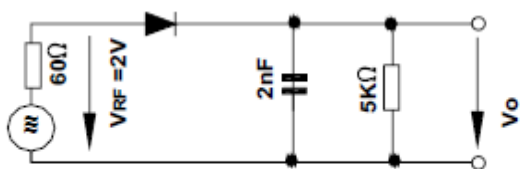
Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V <sub>RM</sub>	100	V
Reverse Voltage	V <sub>R</sub>	75	V
Average Rectified Forward Current	I <sub>F(AV)</sub>	200	mA
Non-repetitive Peak Forward Surge Current at t = 1 s at t = 1 ms at t = 1 μs	I <sub>FSM</sub>	0.5 1 4	A
Power Dissipation	P <sub>tot</sub>	500 <sup>1)</sup>	mW
Junction Temperature	T <sub>j</sub>	200	°C
Storage Temperature Range	T <sub>stg</sub>	- 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<sub>A</sub>=25°C unless otherwise noted)

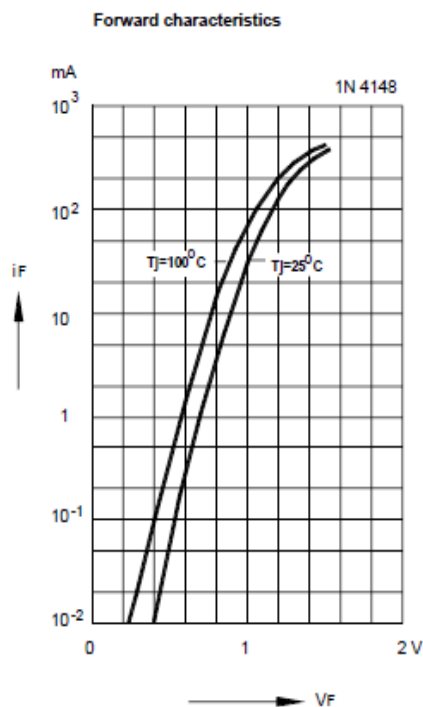
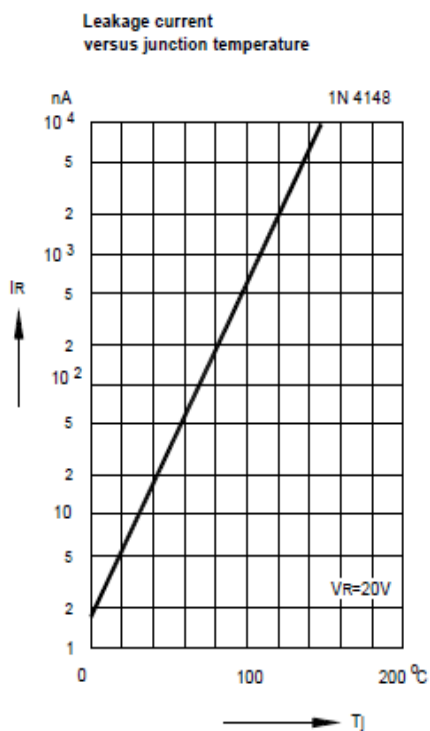
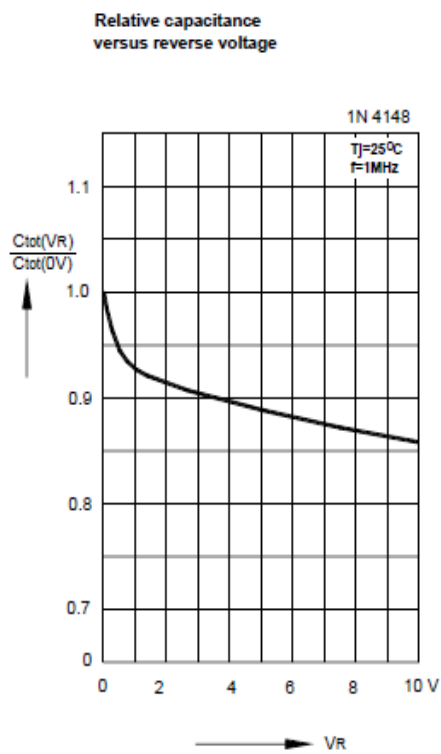
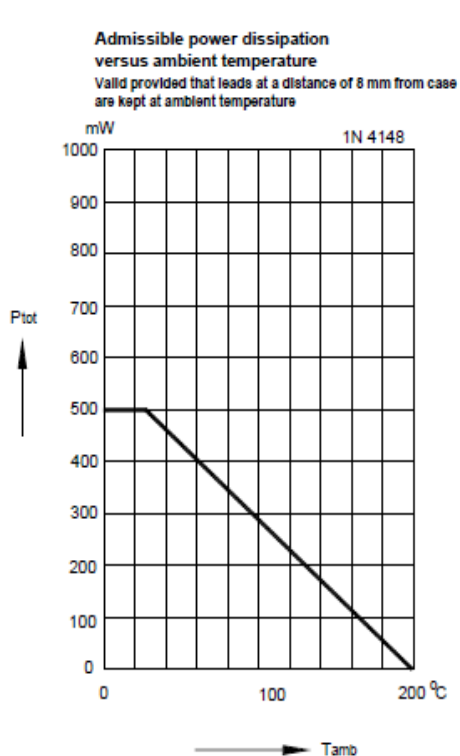
Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at I <sub>R</sub> = 100 μA at I <sub>R</sub> = 5 μA	V <sub>(BR)R</sub>	100 75	- -	V
Forward Voltage at I <sub>F</sub> = 10 mA	V <sub>F</sub>	-	1	V
Leakage Current at V <sub>R</sub> = 20 V at V <sub>R</sub> = 75 V at V <sub>R</sub> = 20 V, T <sub>j</sub> = 150°C	I <sub>R</sub>	- - -	25 5 50	nA μA μA
Capacitance at V <sub>R</sub> = 0, f = 1 MHz	C <sub>tot</sub>	-	4	pF
Voltage Rise when Switching ON tested with 50 mA Forward Pulses t <sub>p</sub> = 0.1 s, Rise Time < 30 ns, f <sub>p</sub> = 5 to 100 KHz	V <sub>fr</sub>	-	2.5	V
Reverse Recovery Time at I <sub>F</sub> = 10 mA to I <sub>R</sub> = 1 mA, I <sub>rr</sub> = 0.1 x I <sub>R</sub> , V <sub>R</sub> = 6 V, R <sub>L</sub> = 100 Ω	t <sub>rr</sub>	-	4	ns
Thermal Resistance Junction to Ambient Air	R <sub>thA</sub>	-	0.35 <sup>1)</sup>	K/mW
Rectification Efficiency at f = 100 MHz, V <sub>RF</sub> = 2 V	η <sub>v</sub>	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





# 1N4148S

## *Silicon Epitaxial Planar Switching Diode*

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### Ordering Information

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Part No.	Package	Packing Code	Packing
1N4148S	DO-34	A50	5000pcs/Ammo

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