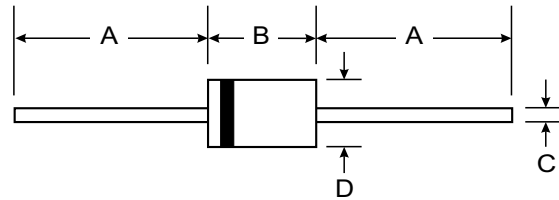


# 1N4148 / 1N4448

## FAST SWITCHING DIODE

### Features

Fast Switching Speed  
General Purpose Rectification  
Silicon Epitaxial Planar Construction



### Mechanical Data

Case: DO-35  
Leads: Solderable per MIL-STD-202, Method 208  
Polarity: Cathode Band  
Marking: Type Number  
Weight: 0.13 grams (approx.)

DO-35		
Dim	Min	Max
A	25.40	
B		4.00
C		0.60
D		2.00
All Dimensions in mm		

### Maximum Ratings @ $T_A = 25\text{ C}$ unless otherwise specified

Characteristic	Symbol	1N4148	1N4448	Unit
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	100		V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	75		V
RMS Reverse Voltage	$V_{R(RMS)}$	53		V
Forward Continuous Current (Note 1)	$I_{FM}$	300	500	mA
Average Rectified Output Current (Note 1)	$I_O$	150		mA
Non-Repetitive Peak Forward Surge Current @ $t = 1.0\text{s}$ @ $t = 1.0\text{s}$	$I_{FSM}$	1.0 2.0		A
Power Dissipation (Note 1) Derate Above 25C	$P_d$	500 1.68		mW mW/C
Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{JA}$	300		K/W
Operating and Storage Temperature Range	$T_j, T_{STG}$	-65 to +175		C

### Electrical Characteristics @ $T_A = 25\text{ C}$ unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Maximum Forward Voltage	$V_{FM}$	0.62	1.0 0.72 1.0	V	$I_F = 10\text{mA}$ $I_F = 5.0\text{mA}$ $I_F = 100\text{mA}$
Maximum Peak Reverse Current	$I_{RM}$		5.0 50 30 25	A A A nA	$V_R = 75\text{V}$ $V_R = 70\text{V}, T_j = 150\text{ C}$ $V_R = 20\text{V}, T_j = 150\text{ C}$ $V_R = 20\text{V}$
Capacitance	$C_j$		4.0	pF	$V_R = 0, f = 1.0\text{MHz}$
Reverse Recovery Time	$t_{rr}$		4.0	ns	$I_F = 10\text{mA}$ to $I_R = 1.0\text{mA}$ $V_R = 6.0\text{V}, R_L = 100$

Notes: 1. Valid provided that device terminals are kept at ambient temperature.

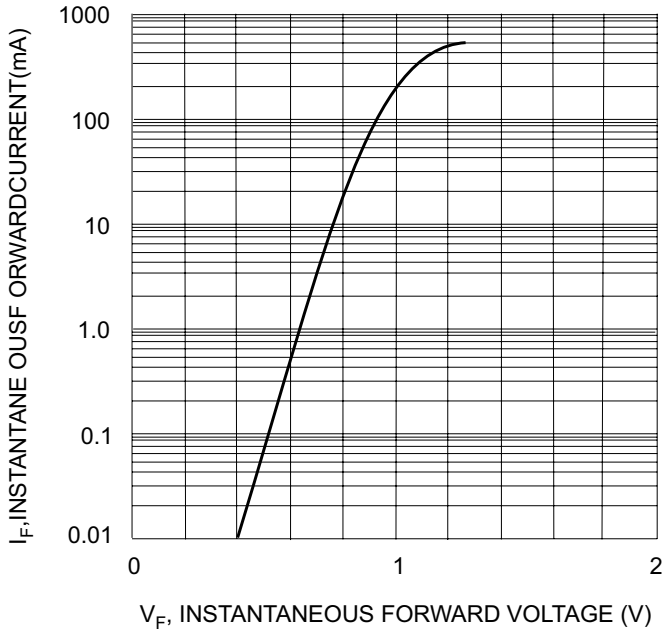


Fig. 1 Forward Characteristics

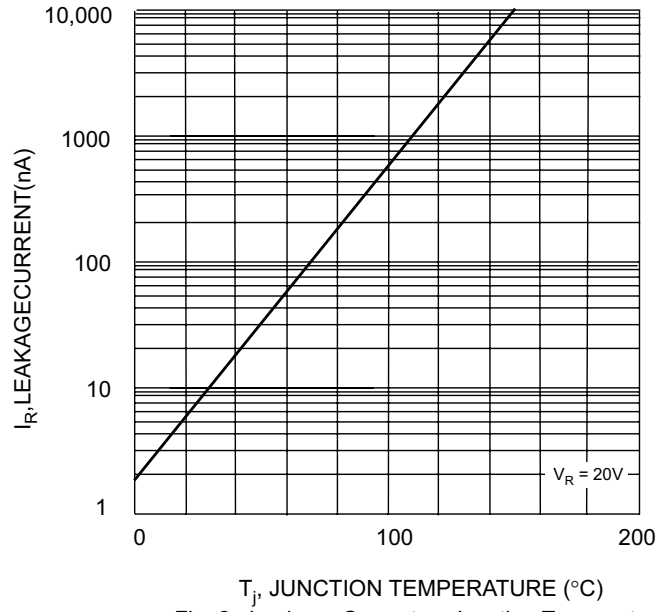


Fig. 2, Leakage Current vs Junction Temperature