

1N4148 / 1N4448

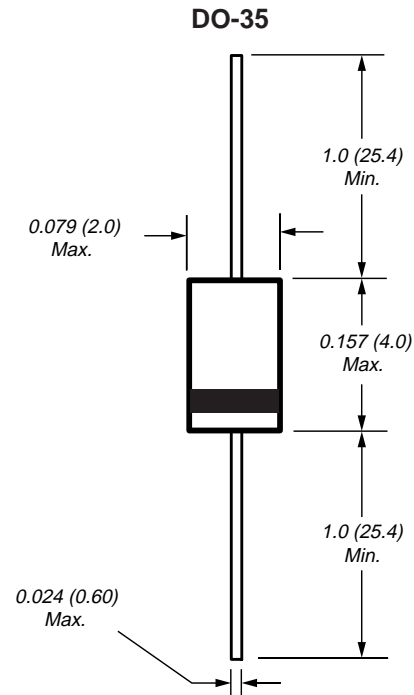
High Speed

Features

- Fast Switching Speed
- General Purpose Rectification
- Silicon Epitaxial Planar Construction

Mechanical Data

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



Dimensions in inches and (millimeters)

Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	1N4148	1N4448	Unit
Non-Repetitive Peak Reverse Voltage	V _{RM}	100		V
Peak Repetitive Reverse Voltage	V _{RRM}	75		V
Working Peak Reverse Voltage	V _{RWM}	75		V
DC Blocking Voltage	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 = 1.0s	I _{FSM}	1.0		A
@ t = 1.0μs		2.0		
Power Dissipation (Note 1)	P _d	500		mW
Derate Above 25°C		1.68		
Thermal Resistance, Junction to Ambient Air (Note 1)	R _{θJA}	300		K/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +175		°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Maximum Forward Voltage	V _{FM}	—	1.0	V	I _F = 10mA I _F = 5.0mA I _F = 100mA
Maximum Peak Reverse Current	I _{RM}	—	5.0	μA	V _R = 75V V _R = 70V, T _J = 150°C V _R = 20V, T _J = 150°C V _R = 20V
			50	μA	
			30	μA	
			25	nA	
Capacitance	C _j	—	4.0	pF	V _R = 0, f = 1.0MHz
Reverse Recovery Time	t _{rr}	—	4.0	ns	I _F = 10mA to I _R = 1.0mA V _R = 6.0V, R _L = 100Ω

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

Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

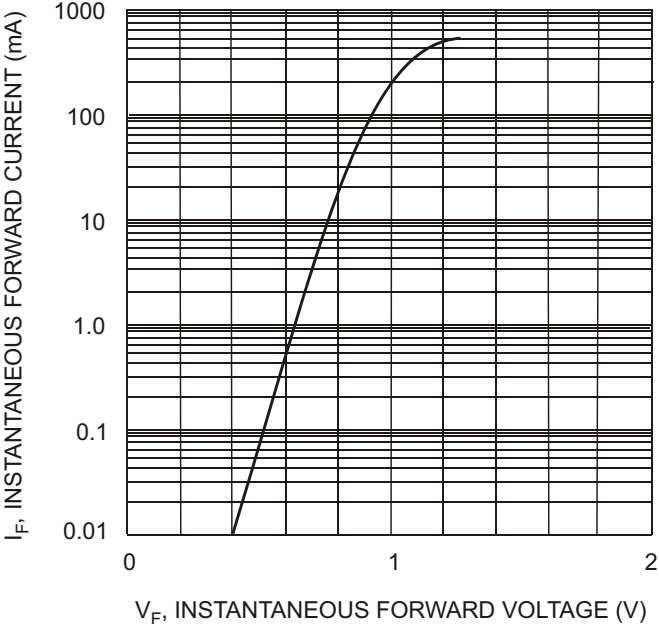


Fig. 1 Forward Characteristics

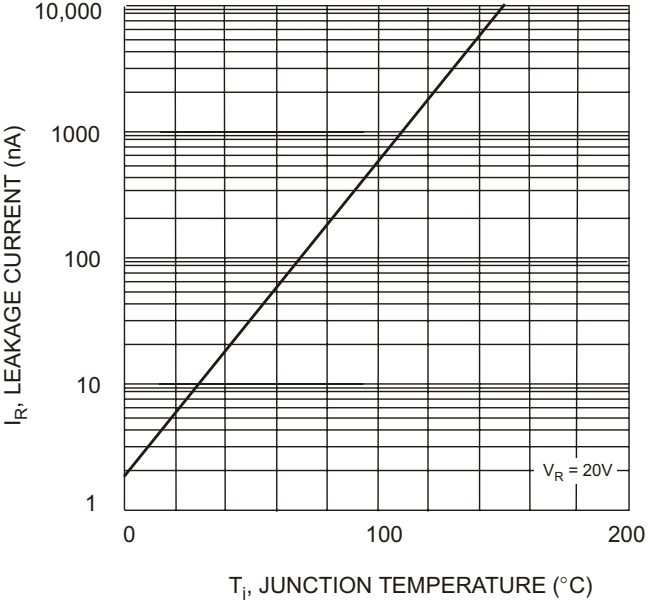


Fig. 2, Leakage Current vs Junction Temperature