1N4148

Switching Diode

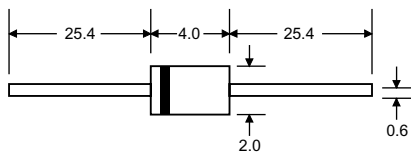
DO-35

Features

- ✧ Fast switching speed
- ✧ General purpose rectification
- ✧ Silicon epitaxial planar construction

Mechanical Data

- ✧ Case: DO-35
- ✧ Leads:Solderableper MIL-STD-202, Method 208
- ✧ Polarity: Cathode band
- ✧ Marking: Type number
- ✧ Weight: 0.13 grams (approx.)



Dimensions in Millimeters

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.

Maximum Ratings

Type Number	Symbol	1N4148	Units
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
Average Rectifier Output Current	Io	150	mA
Non-Repetitive Peak Forward Surge Current @ t=1.0s	I_{FSM}	500	mA
Power Dissipation (Note 1)atTamb = 25 °C	Pd	500	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	350	K/W
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to + 175	°C

Electrical Characteristics

Type Number	Symbol	Min	Max	Units
Forward Voltage @ IF=10mA	V_F	-	1.0	V
Peak Reverse Current VR=75V VR=70V, Tj=150℃ VR=20V, TJ=150℃ VR=20V	I_R	-	 5.0 50 30 25	 uA uA uA nA
Capacitance VR=0, f=1.0MHz	Cj	-	4.0	pF
Reverse Recovery Time (Note 1)	trr	-	4.0	nS

Note: 1. Reverse Recovery Test Conditions: IF=10mA to IR=1.0mA VR=6.0V, RL=100Ω

RATINGS AND CHARACTERISTIC CURVES (1N4148)

FIG.1- FORWARD CHARACTERISTICS CURVE

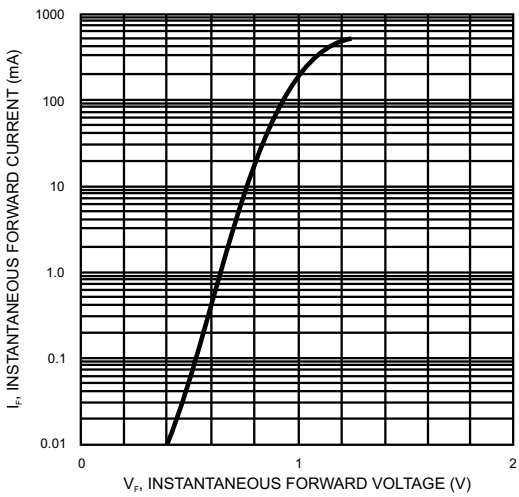


FIG.2- LEAKAGE CURRENT VS JUNCTION TEMPERATURE

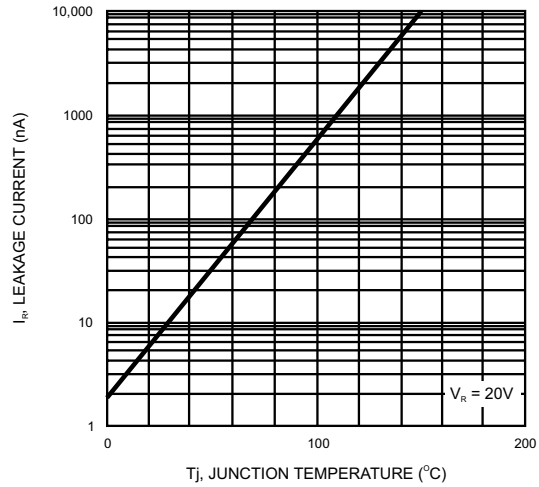


FIG.3- ADMISSIBLE POWER DISSIPATION VS AMBIENT TEMPERATURE