

1N4148

Silicon Epitaxial Planar Diode for Various Detector, Modulator, Demodulator

HITACHI

Rev. 1
Aug. 1995

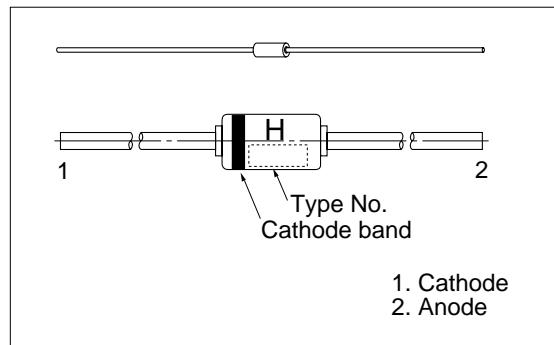
Features

- Low capacitance. ($C=4.0\text{pF}$ max)
- Short reverse recovery time. ($t_{rr}=4.0\text{ns}$ max)
- High reliability with glass seal.

Ordering Information

Type No.	Cathode band	Mark	Package Code
1N4148	Black	H	DO-35

Outline



Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

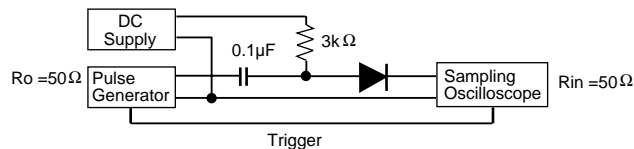
Item	Symbol	Value	Unit
Peak reverse voltage	V_{RM}	100	V
Reverse voltage	V_R	75	V
Peak forward current	I_{FM}	450	mA
Non-Repetitive peak forward surge current	I_{FSM}^*	1	A
Average forward current	I_O	150	mA
Power dissipation	P_d	500	mW
Storage temperature	T_{stg}	-65 to +200	$^\circ\text{C}$

* Within 1s forward surge current.

Electrical Characteristics ($T_a = 25^\circ\text{C}$)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_F	—	—	1.0	V	$I_F = 10\text{ mA}$
Reverse current	I_R	—	—	25	nA	$V_R = 20\text{ V}$
Capacitance	C	—	—	4.0	pF	$V_R = 0\text{ V}, f = 1\text{ MHz}$
Reverse recovery time	t_{rr}^*	—	—	4.0	ns	$I_F=10\text{mA}, V_R=6\text{V}, I_{rr}=1\text{mA}, R_L=100\Omega$

* Reverse recovery time test circuit



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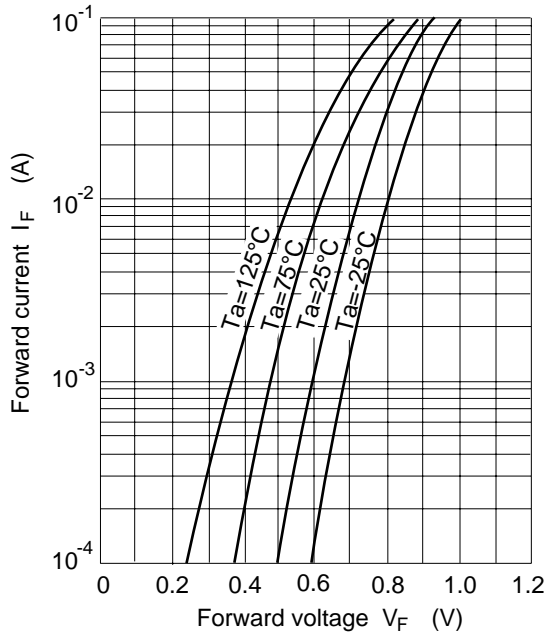


Fig.1 Forward current Vs. Forward voltage

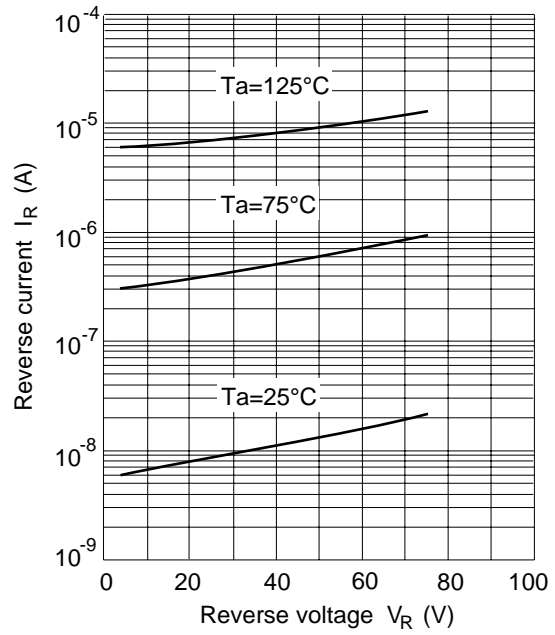


Fig.2 Reverse current Vs. Reverse voltage

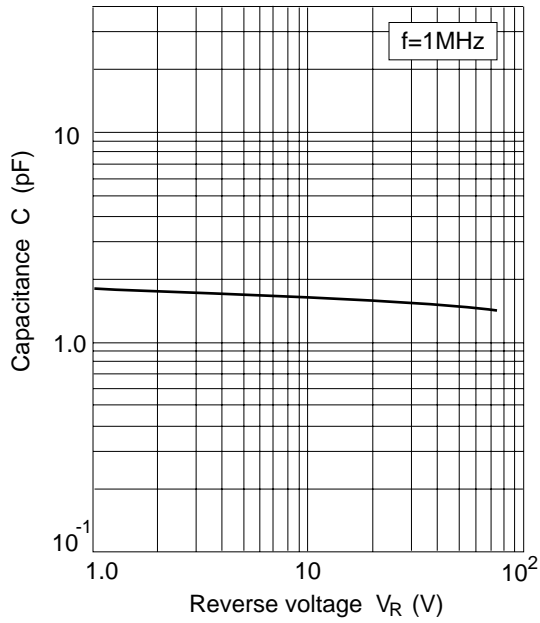
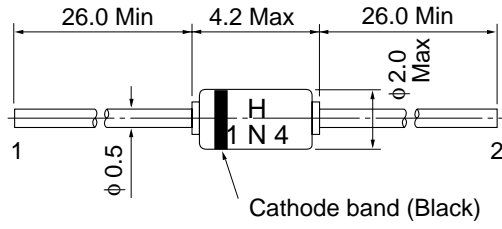


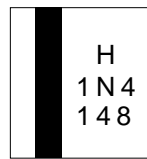
Fig.3 Capacitance Vs. Reverse voltage

Package Dimensions

Unit: mm



- 1 Cathode
- 2 Anode



Expanded drawing of marking

HITACHI Code	DO-35
JEDEC Code	DO-35
EIAJ Code	SC-48
Weight (g)	0.13