1N4148

Silicon Epitaxial Planar Diode for Various Detector, Modulator, Demodulator

HITACHI

ADE-208-147C (Z)

Rev.3
Dec. 2001

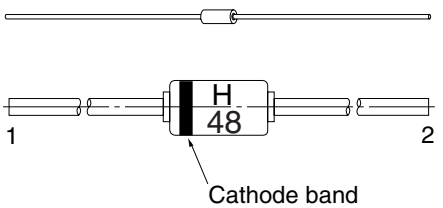
Features

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

Ordering Information

Type No.	Cathode band	Mark	Package Code
1N4148	Black	H48	DO-35

Outline



1. Cathode
2. Anode

Hitachi semiconductor

Absolute Maximum Ratings

(Ta = 25°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	Pd	500	mW
Junction temperature	Tj	200	°C
Storage temperature	Tstg	–65 to +200	°C

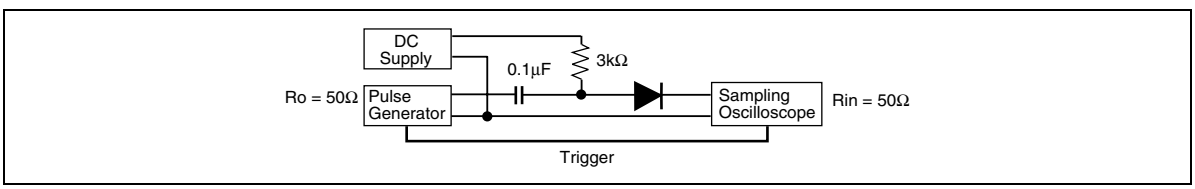
Note: Within 1s forward surge current.

Electrical Characteristics

(Ta = 25°C)

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

Note: Reverse recovery time test circuit



Main Characteristic

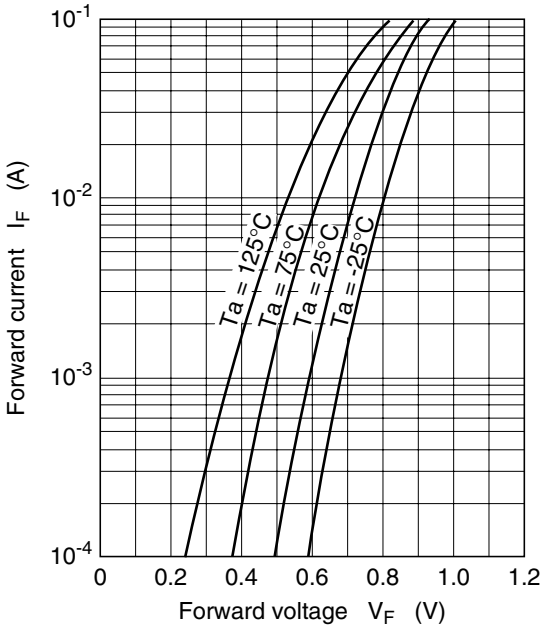


Fig.1 Forward current vs. Forward voltage

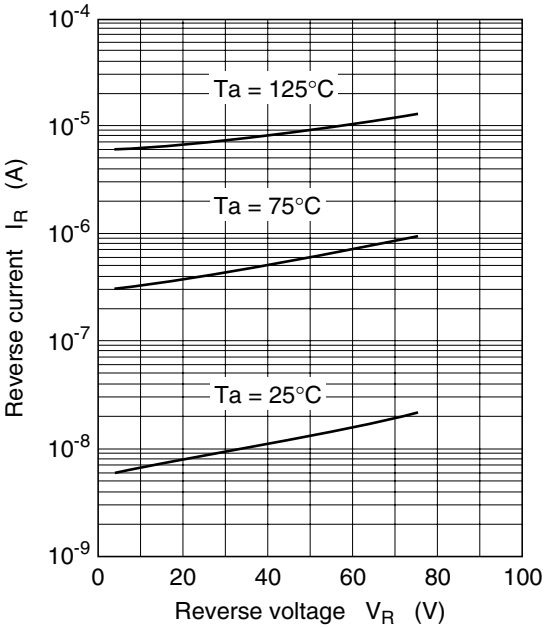


Fig.2 Reverse current vs. Reverse voltage

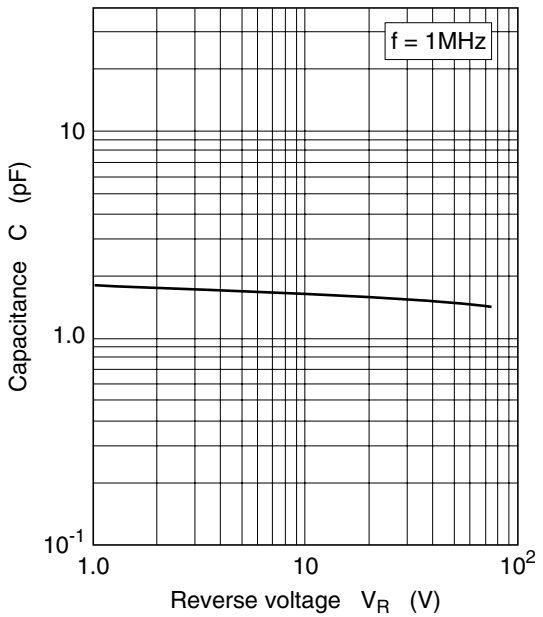
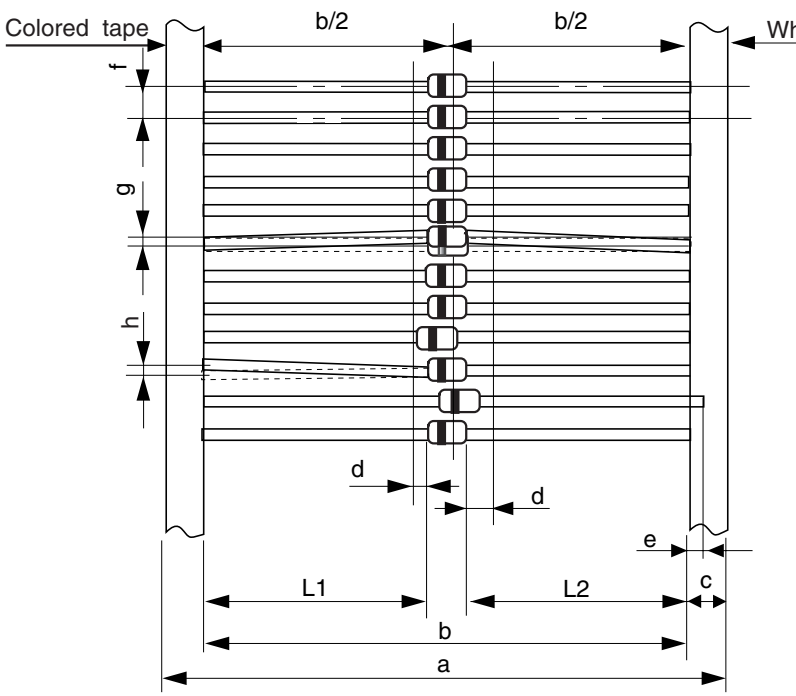


Fig.3 Capacitance vs. Reverse voltage

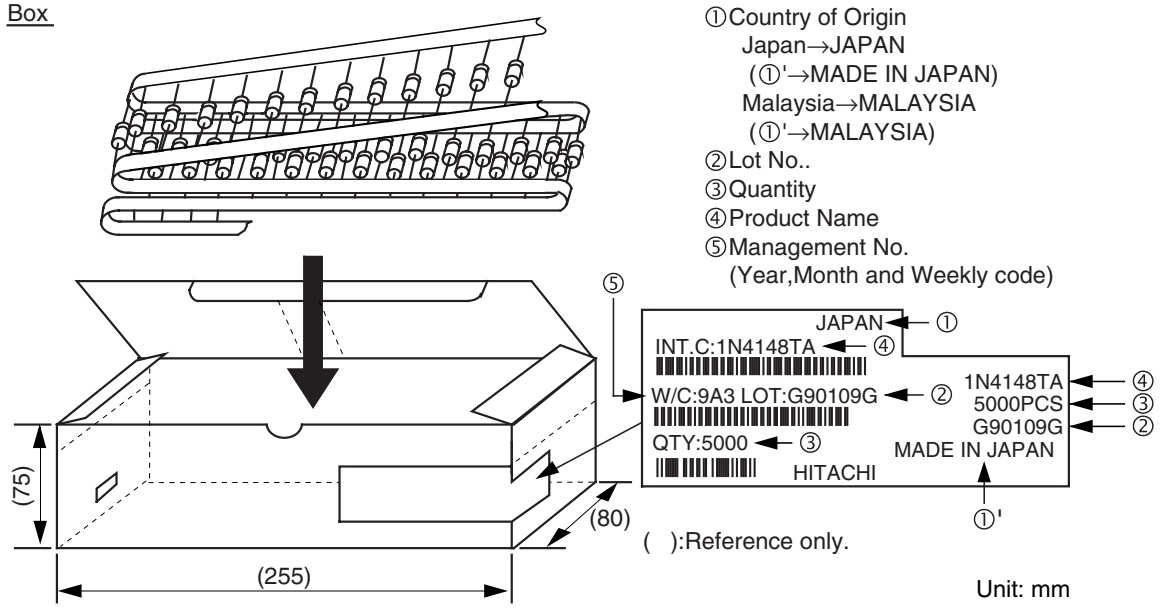
Ammo Pack Taping (TA TYPE)



Unit: mm

a	64.0 ± 1.5
b	52.4 ± 1.2
c	6.0 ± 0.5
d	± 0.5
e	3.2 min
f	5.00 ± 0.38
g	± 1.0
h	1.0max
| L1–L2 |	1.0max
JEITA CODE	TA21 (R)

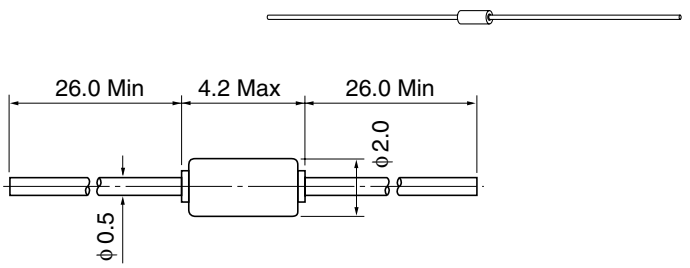
Taping appearance



Package Dimensions

As of July, 2001

Unit: mm



Hitachi Code	DO-35
JEDEC	Conforms
JEITA	Conforms
Mass (reference value)	0.13 g

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