

# 1N4148

Silicon Epitaxial Planar Diode for Various Detector,  
Modulator, Demodulator

REJ03G0556-0400  
(Previous: ADE-208-147C)  
Rev.4.00  
Mar 17, 2005

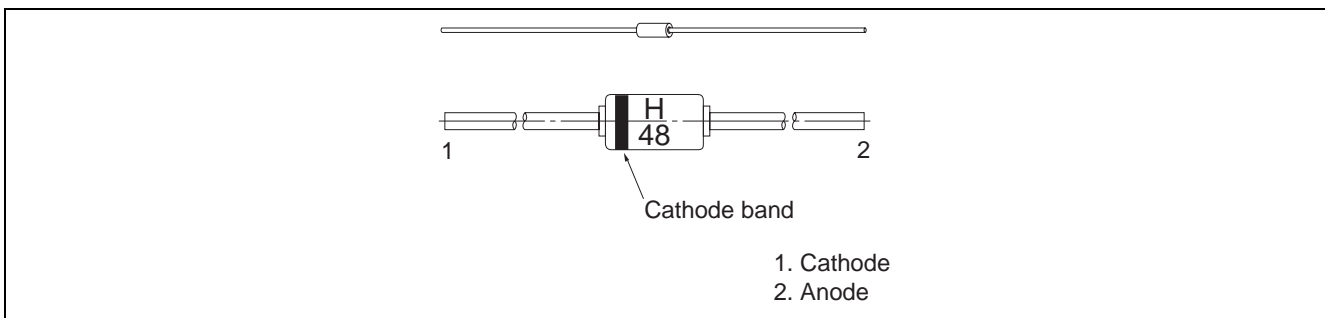
## Features

- 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 Name	Package Code (Previous Code)
1N4148	Black	H48	DO-35	GRZZ0002ZB-A (DO-35)

## Pin Arrangement



## Absolute Maximum Ratings

(Ta = 25°C)

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

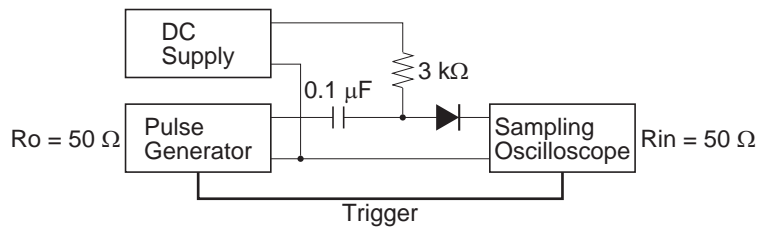
Note: Within 1s forward surge current.

## Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	$V_F$	—	—	1.0	V	$I_F = 10 \text{ mA}$
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	$t_{rr}^{*1}$	—	—	4.0	ns	$I_F = 10 \text{ mA}, V_R = 6 \text{ V}, I_{rr} = 1 \text{ mA}, R_L = 100 \Omega$

Note: 1. Reverse recovery time test circuit



Main Characteristic

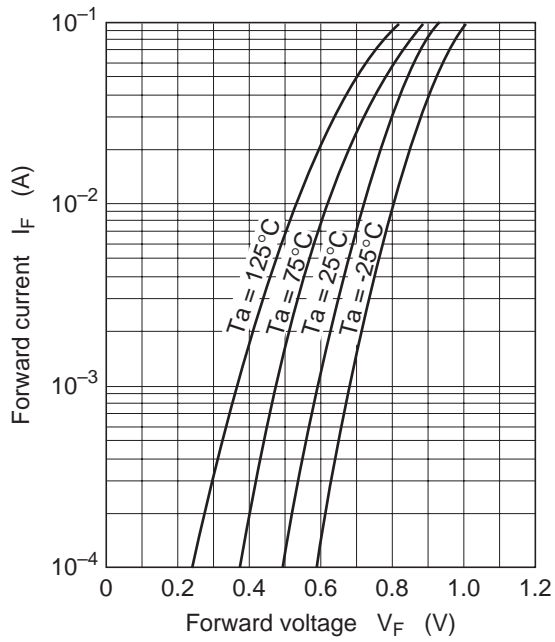


Fig.1 Forward current vs. Forward voltage

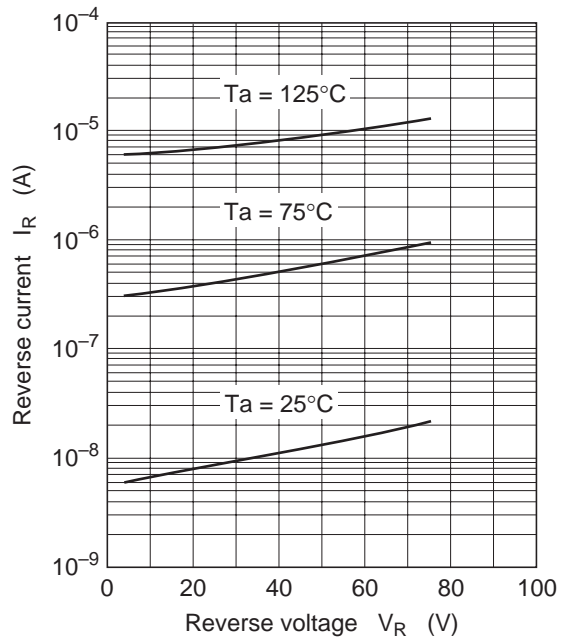


Fig.2 Reverse current vs. Reverse voltage

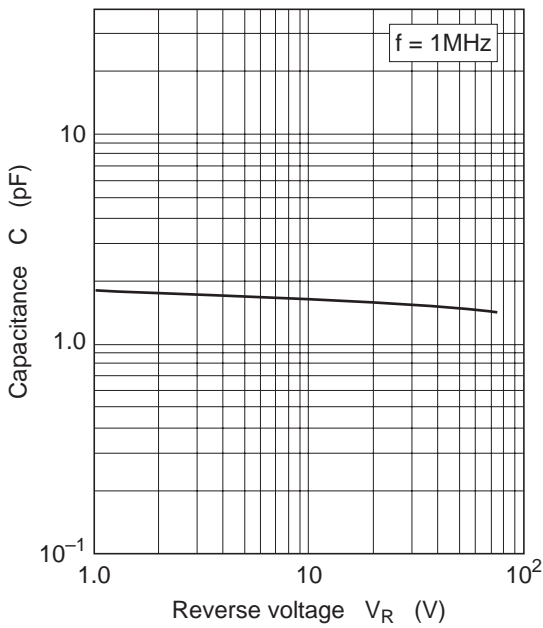
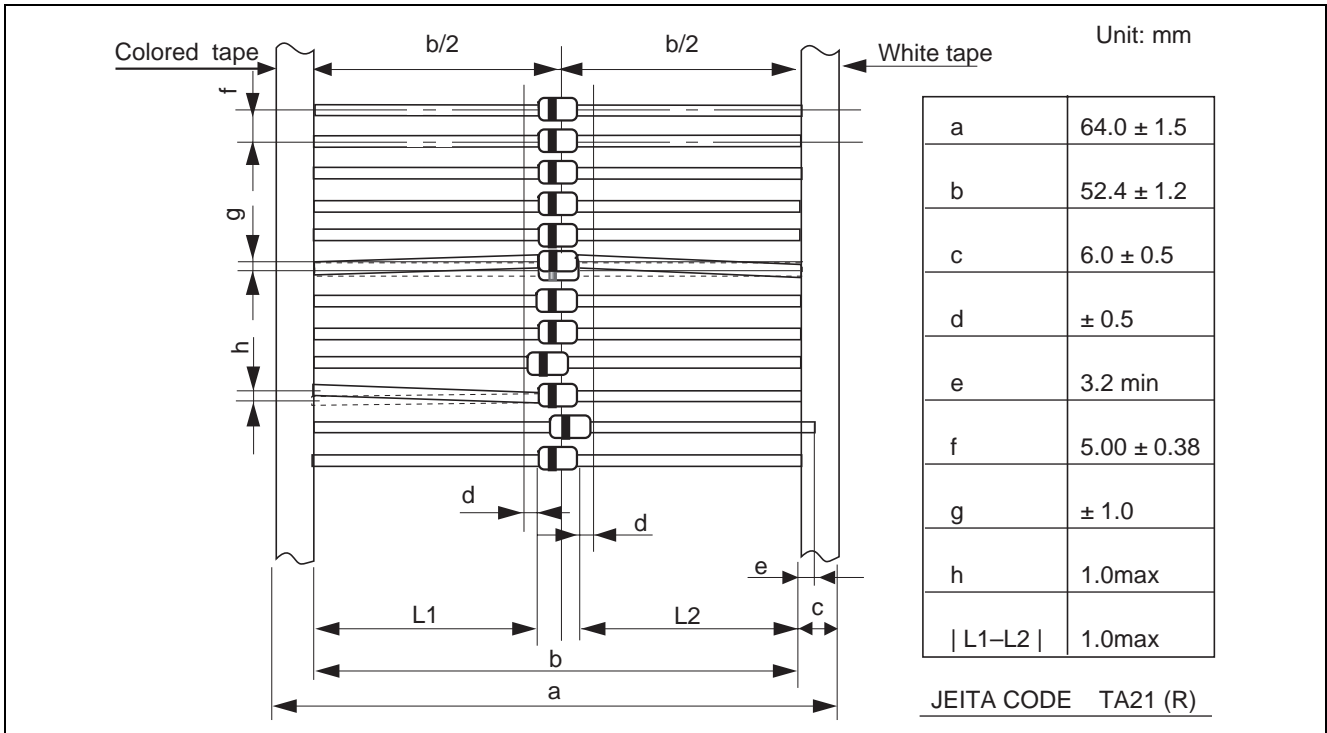
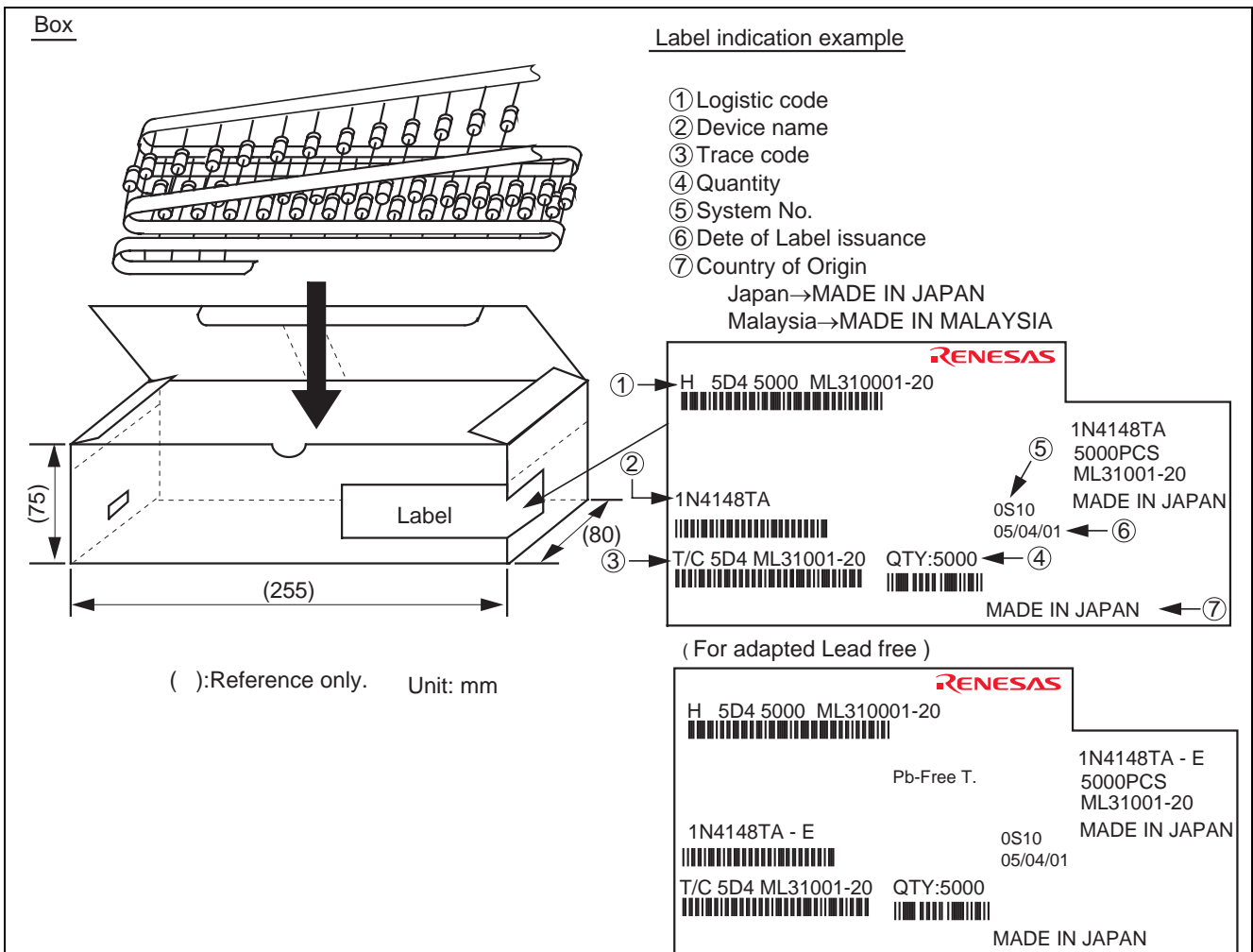


Fig.3 Capacitance vs. Reverse voltage

**Ammo Pack Taping (TA TYPE)**



**Taping appearance**



## Package Dimensions

JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
SC-40	GRZZ000ZZB-A	DO-35 / DO-35V	0.13g

The diagram shows a side view of a DO-35 package. It features a central cylindrical body with a diameter of  $\phi D$  and a length of  $E$ . This central body is flanked by two leads, each with a diameter of  $\phi b$  and a length of  $L$  from the center of the body to the end of the lead. The leads are shown with break symbols to indicate they are longer than drawn.

Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
$\phi b$	-	0.5	-
$\phi D$	-	2.0	-
E	-	-	4.2
L	26.0	-	-

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