

1N4148

Silicon Epitaxial Planar Diode for Various Detector,
Modulator, Demodulator

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

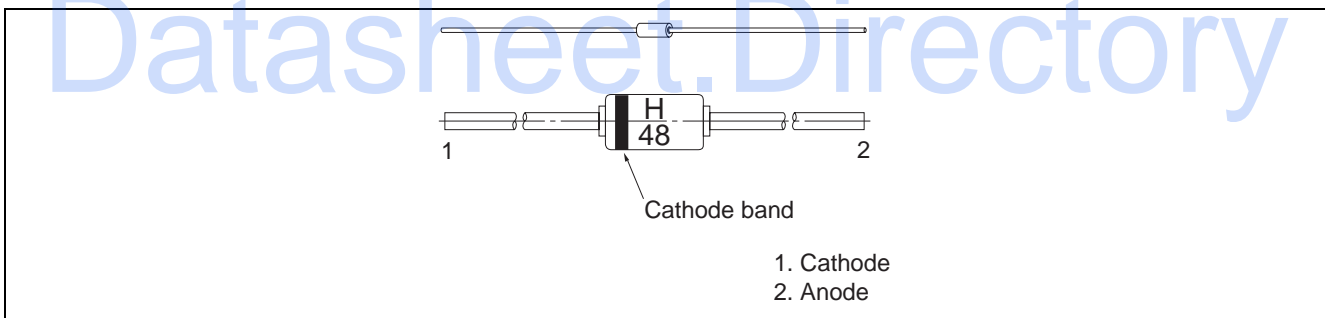
Features

- 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

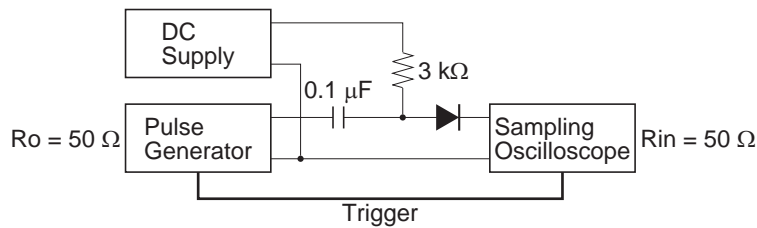
Note: Within 1s forward surge current.

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

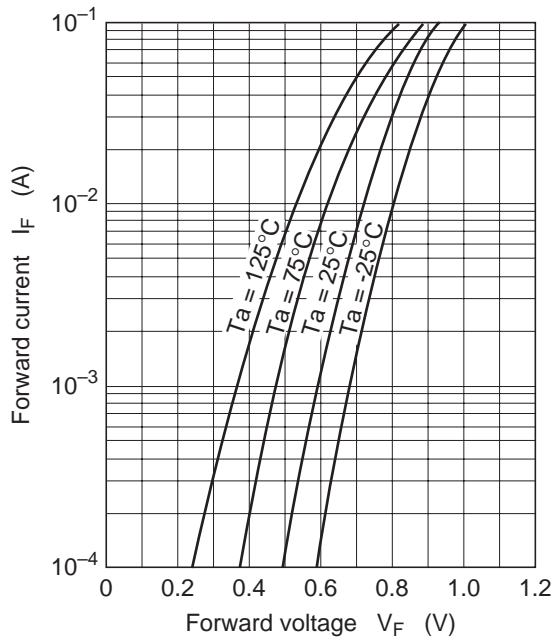


Fig.1 Forward current vs. Forward voltage

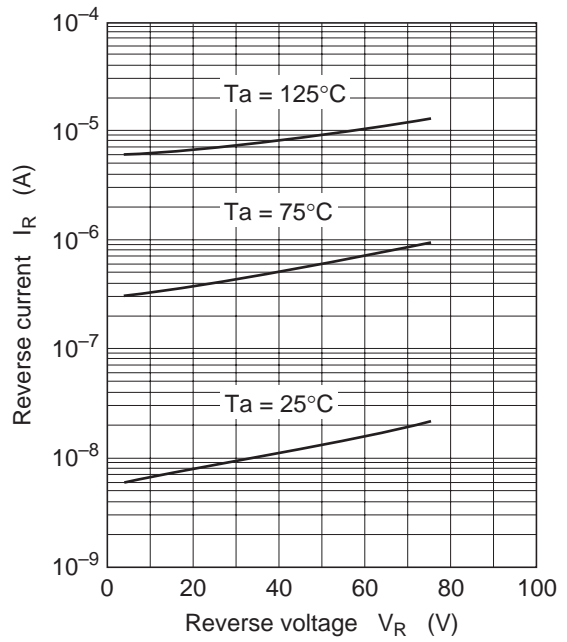


Fig.2 Reverse current vs. Reverse voltage

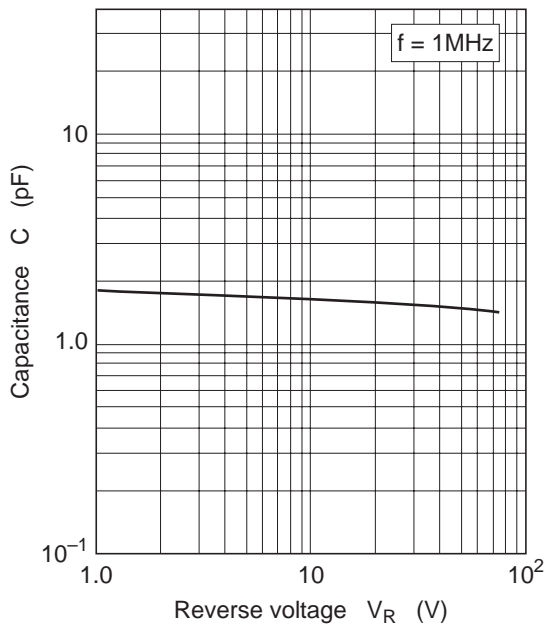
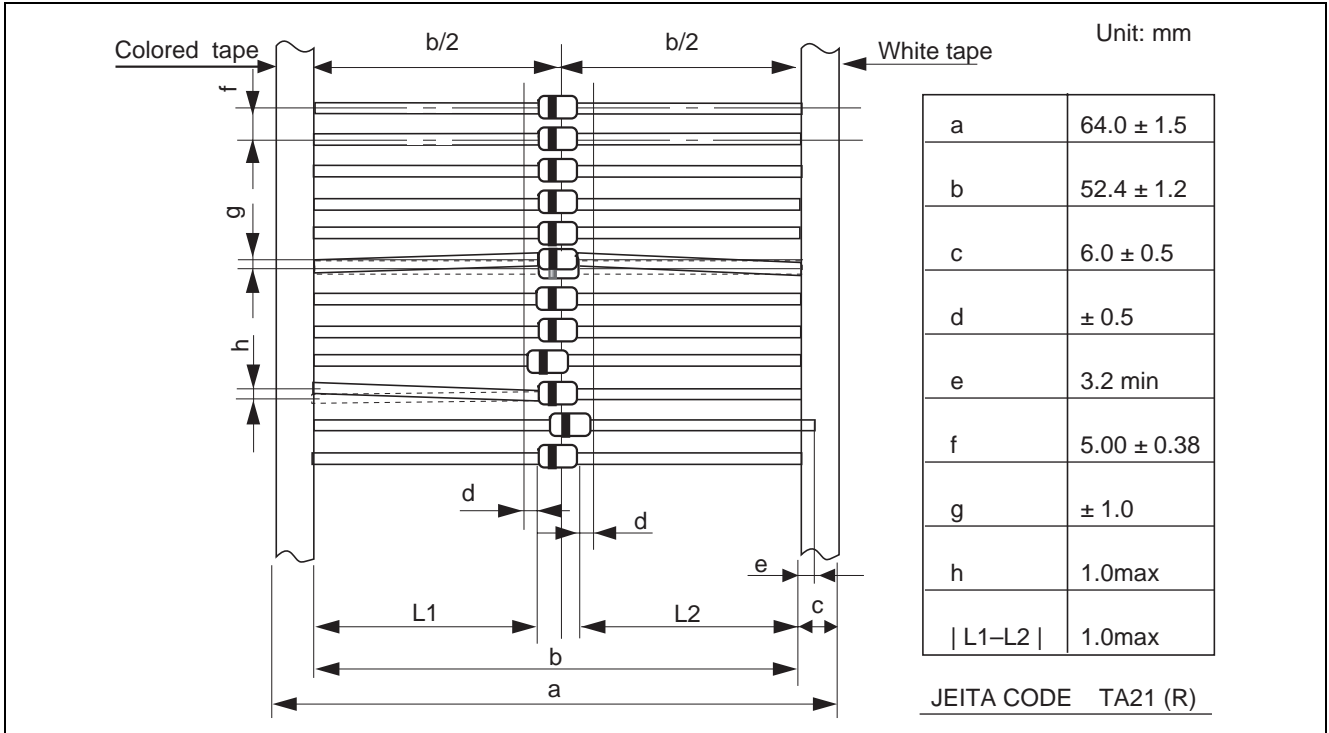
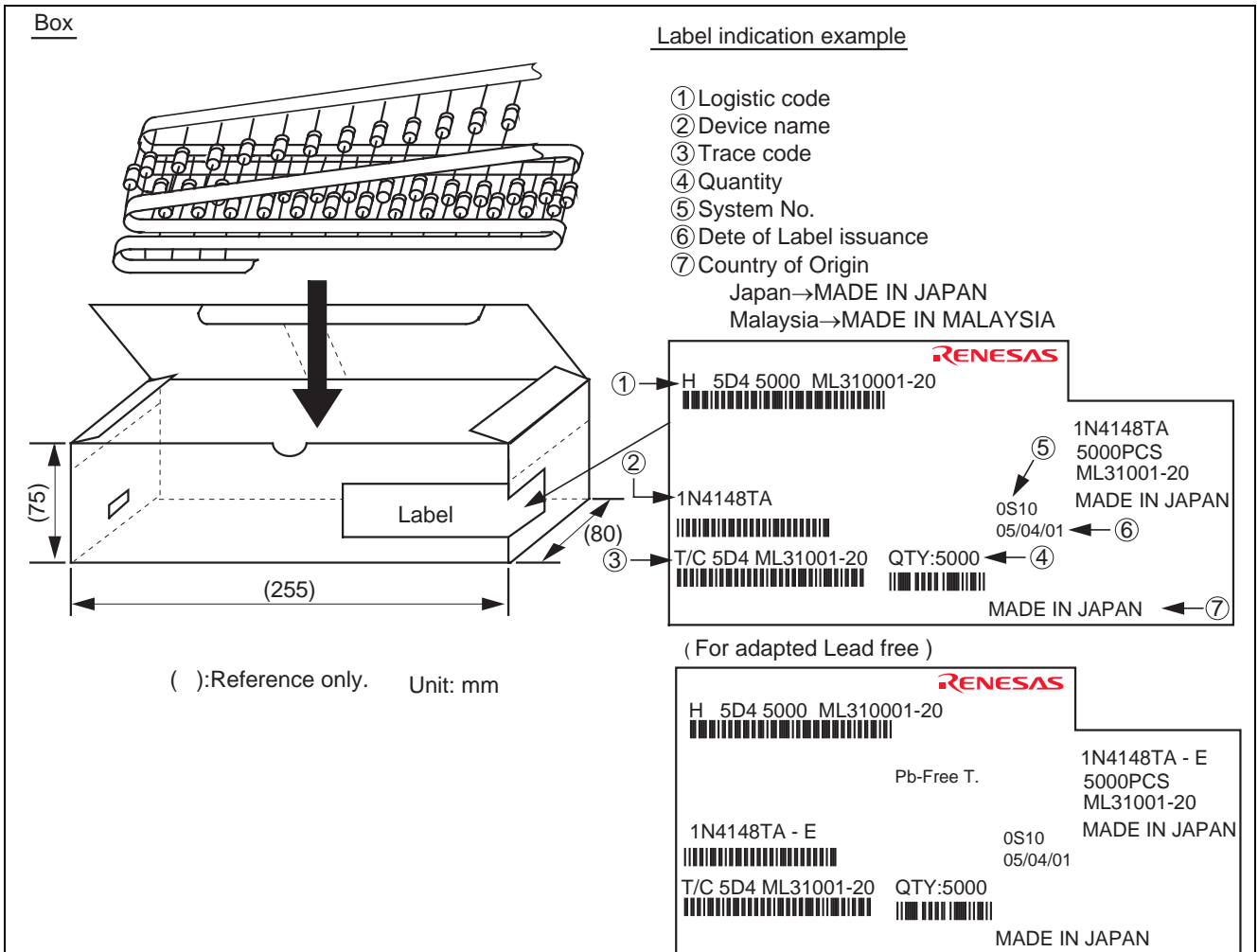


Fig.3 Capacitance vs. Reverse voltage

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 consists of a central cylindrical body with a diameter of ϕD and a length of E . This central body is flanked by two leads, each with a diameter of ϕb 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
ϕb	-	0.5	-
ϕD	-	2.0	-
E	-	-	4.2
L	26.0	-	-

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Renesas Technology America, Inc.

450 Holger Way, San Jose, CA 95134-1368, U.S.A
Tel: <1> (408) 382-7500, Fax: <1> (408) 382-7501

Renesas Technology Europe Limited

Dukes Meadow, Millboard Road, Bourne End, Buckinghamshire, SL8 5FH, U.K.
Tel: <44> (1628) 585-100, Fax: <44> (1628) 585-900

Renesas Technology Hong Kong Ltd.

7th Floor, North Tower, World Finance Centre, Harbour City, 1 Canton Road, Tsimshatsui, Kowloon, Hong Kong
Tel: <852> 2265-6688, Fax: <852> 2730-6071

Renesas Technology Taiwan Co., Ltd.

10th Floor, No.99, Fushing North Road, Taipei, Taiwan
Tel: <886> (2) 2715-2888, Fax: <886> (2) 2713-2999

Renesas Technology (Shanghai) Co., Ltd.

Unit2607 Ruijing Building, No.205 Maoming Road (S), Shanghai 200020, China
Tel: <86> (21) 6472-1001, Fax: <86> (21) 6415-2952

Renesas Technology Singapore Pte. Ltd.

1 Harbour Front Avenue, #06-10, Keppel Bay Tower, Singapore 098632
Tel: <65> 6213-0200, Fax: <65> 6278-8001