1N4148

Silicon Epitaxial Planar Diode for Various Detector, Modulator, Demodulator

REJ03G0556-0500
Rev.5.00
Jul 19, 2006

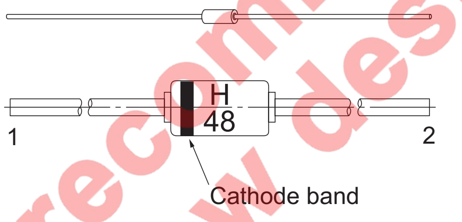
Features

- 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
1N4148	Black	H48	DO-35	GRZZ0002ZB-A

Pin Arrangement



1. Cathode
2. Anode

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	Pd	500	mW
Junction temperature	Tj	200	°C
Storage temperature	Tstg	–65 to +200	°C

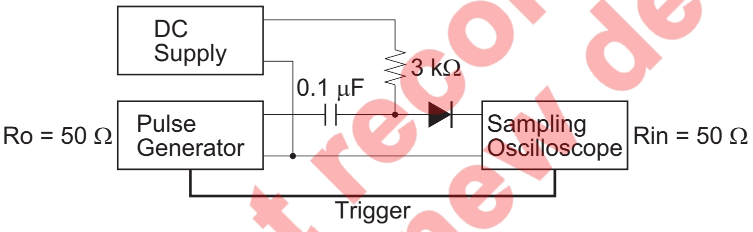
Note: Within 1s forward surge current.

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} *[1]	—	—	4.0	ns	I_F = 10 mA, V_R = 6 V, Irr = 1 mA, R_L = 100 Ω

Note: 1. Reverse recovery time test circuit



RENESAS

Main Characteristic

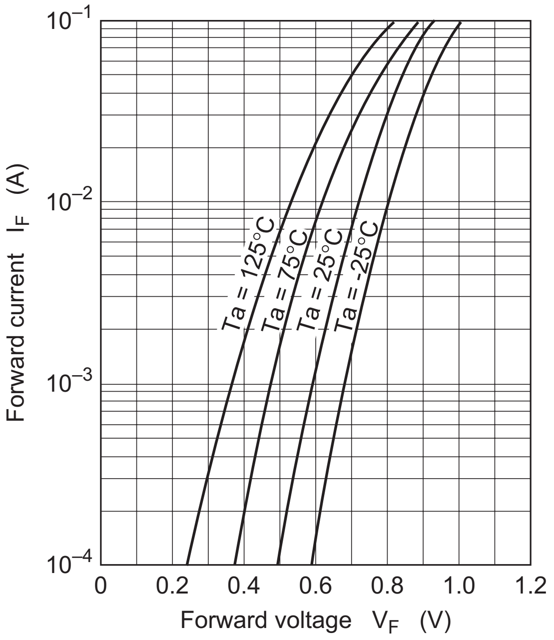


Fig.1 Forward current vs. Forward voltage

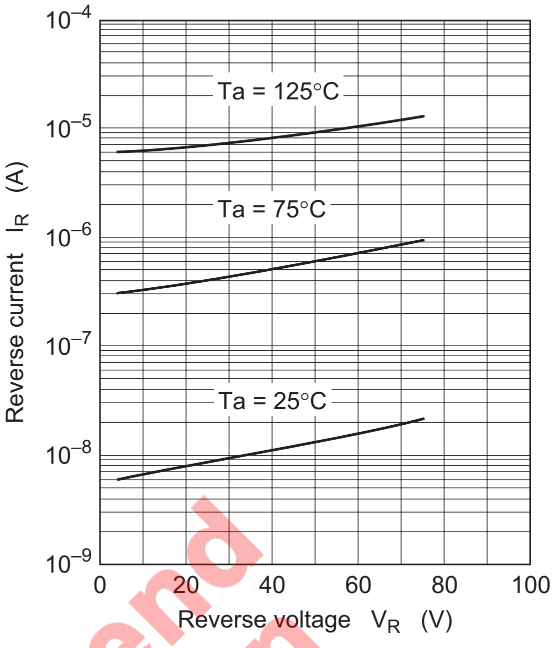


Fig.2 Reverse current vs. Reverse voltage

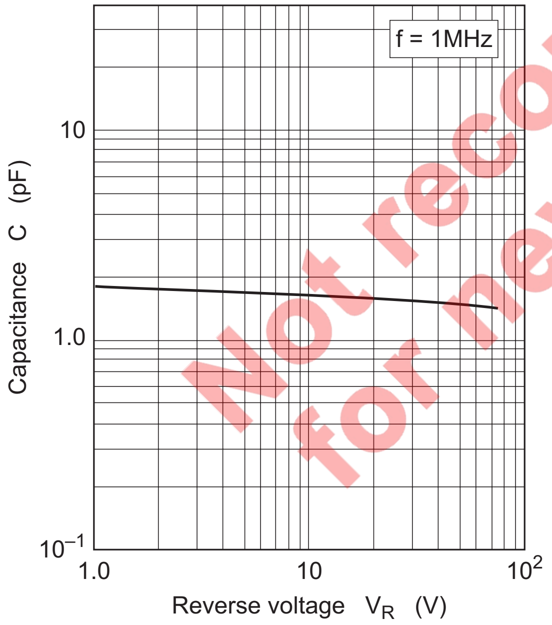
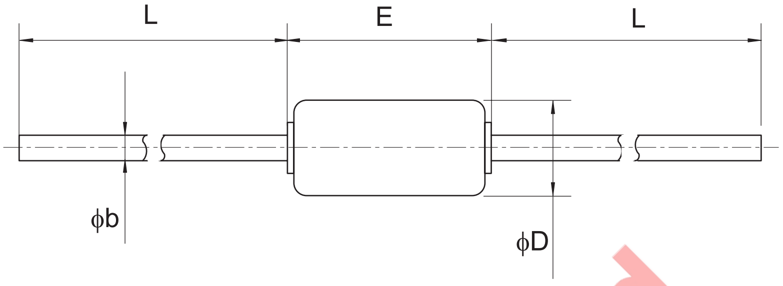


Fig.3 Capacitance vs. Reverse voltage

Package Dimensions

Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
DO-35	SC-40	GRZZ0002ZB-A	DO-35 / DO-35V	0.13g



Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
ϕb	-	0.5	-
ϕD	-	2.0	-
E	-	-	4.2
L	26.0	-	-