To all our customers

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Renesas Technology Corp.
Customer Support Dept.
April 1, 2003

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HZT33

Monolithic IC Zener Diode for Temperature Compensation

ADE-208-135D (Z)

Rev.4
Apr. 2002

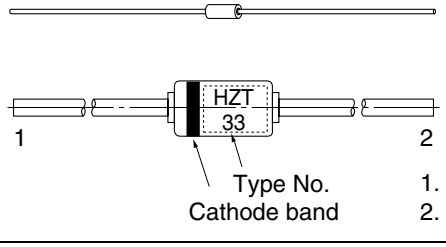
Features

- Lower temperature coefficient of the reference voltage.
- Lower dynamic resistance.
- High reliability with glass seal.

Ordering Information

Type No.	Mark	Package Code
HZT33	Type No.	DO-35

Pin Arrangement



Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Power dissipation	Pd *	200	mW
Operation temperature	Topr	–20 to +75	°C
Storage temperature	Tstg	–40 to +175	°C

Note: Value at Ta = 75°C.

Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Zener Voltage	V_Z	31.0	—	35.0	V	I_Z = 5 mA
Dynamic resistance	r_d	—	—	25.0	Ω	I_Z = 5 mA, f = 1 KHz
Temperature coefficient	γ_Z	—	1.0 *[1]	—	mV/°C	*[2] I_Z = 5 mA Ta = –20 to 25 to 75°C

Notes: 1. Type Value of γ_Z : 1.0 mV/°C

2. Definition of γ_Z
   γ_Z based on Ta = + 25°C and the temperature coefficient with each temperature.
   (Range of operation temperature)

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Main Characteristic

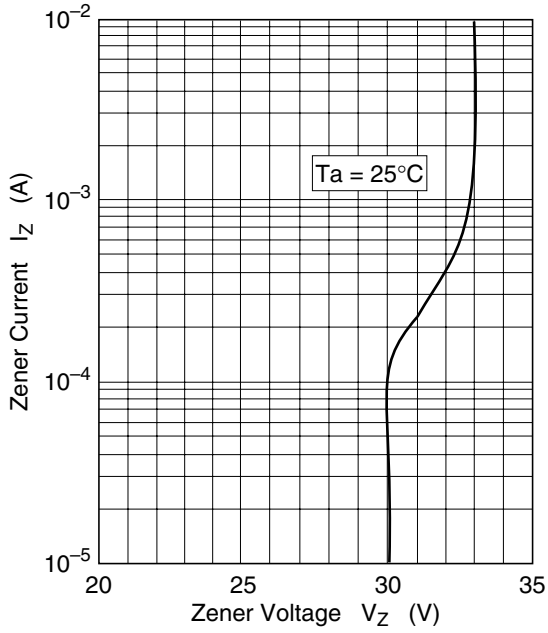


Fig.1 Zener current vs. Zener voltage

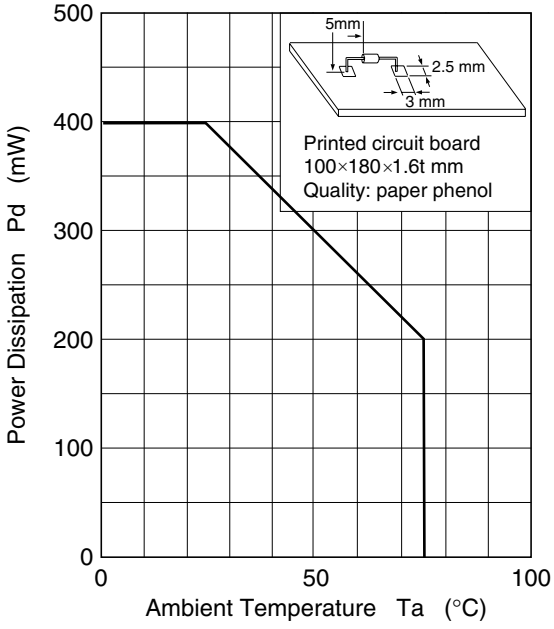
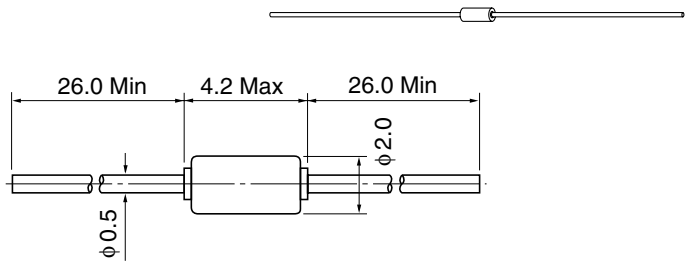


Fig.2 Power Dissipation vs. Ambient Temperature

Package Dimensions

As of January, 2002

Unit: mm



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

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