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Renesas Electronics website: <http://www.renesas.com>

April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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HZT33

Monolithic IC Zener Diode for Temperature Compensation

REJ03G1220-0500
(Previous: ADE-208-135D)
Rev.5.00
Jun 23, 2005

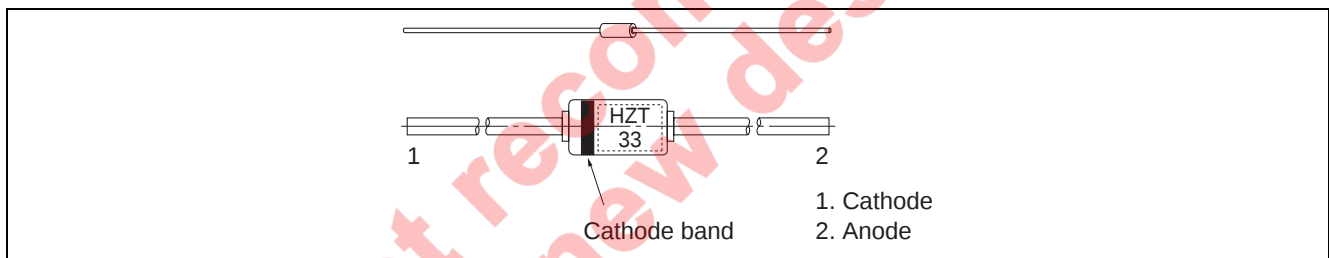
Features

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

Ordering Information

Type No.	Cathode band	Mark	Package Name	Package Code (Previous Code)
HZT33	Navy Blue	HZT33	DO-35	GRZZ0002ZB-A (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/°C2. Definition of γ_Zγ_Z based on Ta = + 25°C and the temperature coefficient with each temperature.

(Range of operation temperature)

Main Characteristic

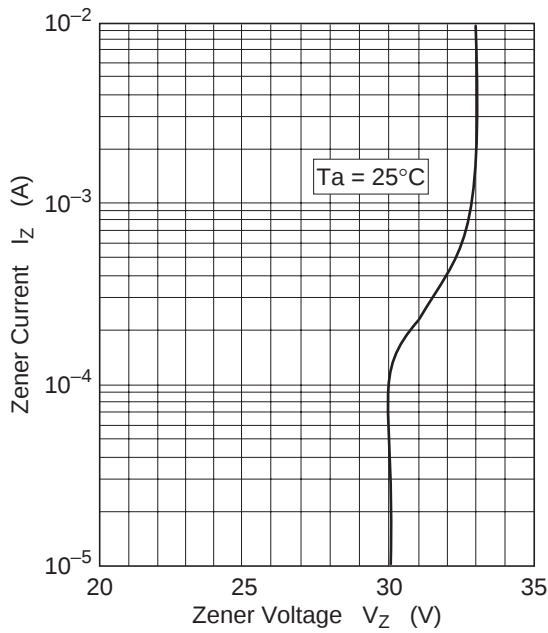


Fig.1 Zener current vs. Zener voltage

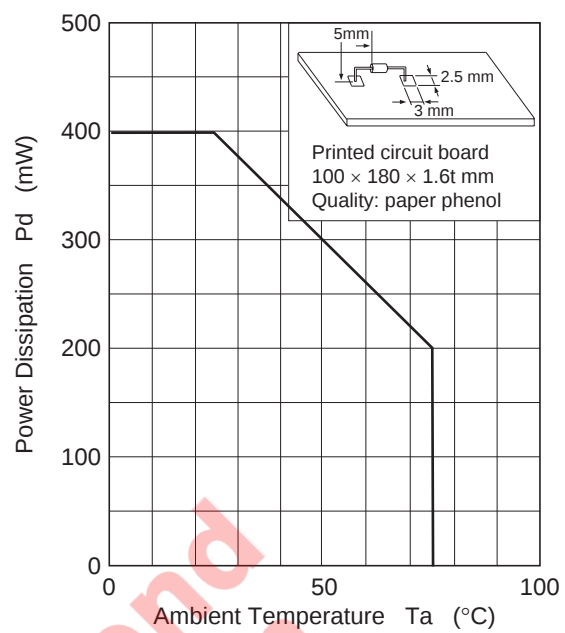
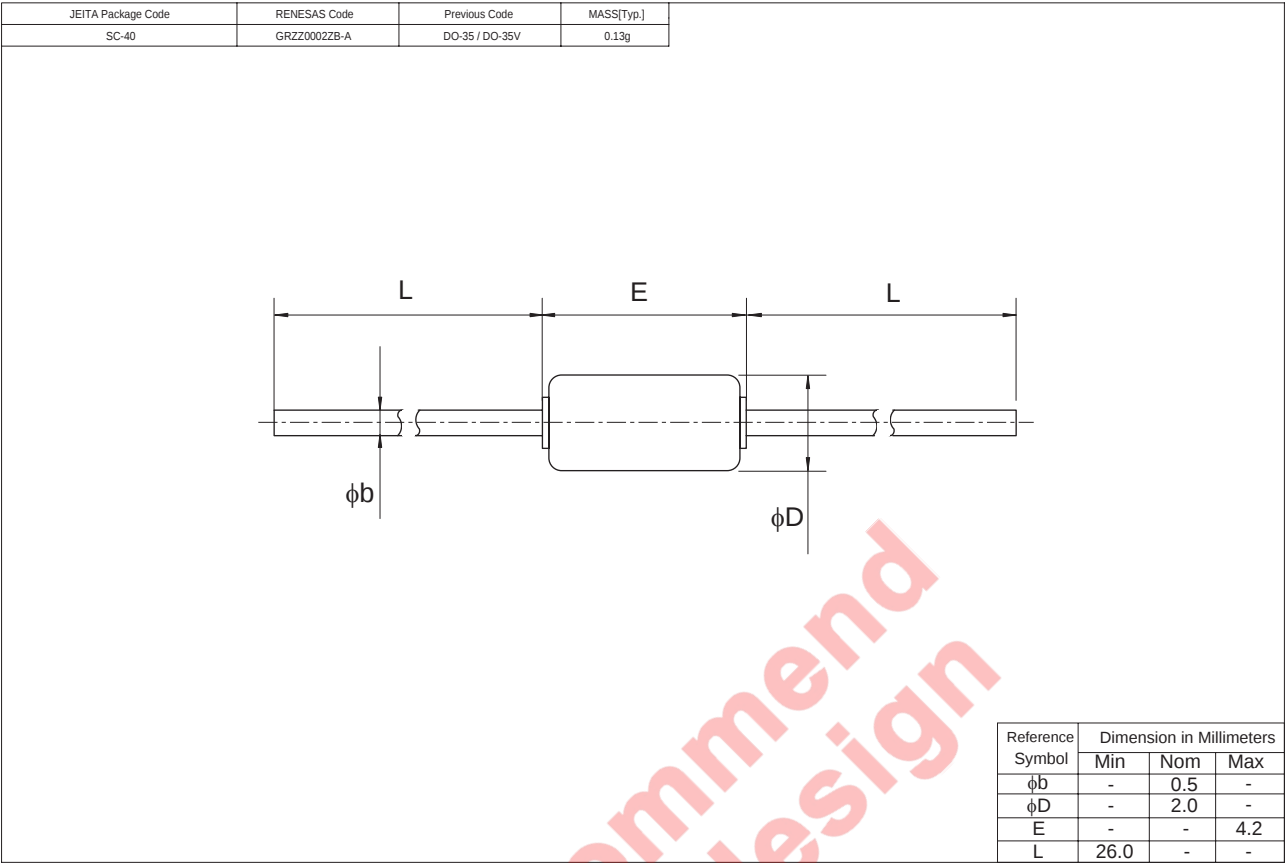


Fig.2 Power Dissipation vs. Ambient Temperature

Package Dimensions



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