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

Cautions

Keep safety first in your circuit designs!

1. Renesas Technology Corporation puts the maximum effort into making semiconductor products better and more reliable, but there is always the possibility that trouble may occur with them. Trouble with semiconductors may lead to personal injury, fire or property damage.

Remember to give due consideration to safety when making your circuit designs, with appropriate measures such as (i) placement of substitutive, auxiliary circuits, (ii) use of nonflammable material or (iii) prevention against any malfunction or mishap.

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HZM5.6ZFA

Silicon Epitaxial Planar Zener Diode for Surge Absorb



ADE-208-796B (Z)

Rev.2
Nov. 2002

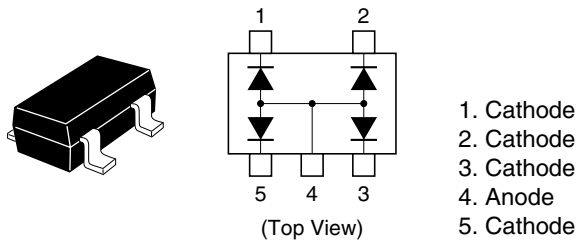
Features

- HZM5.6ZFA has four devices, and can absorb surge.
- Low capacitance ($C = 8.5 \text{ pF max}$) and can protect ESD of signal line.
- MPAK-5 Package is suitable for high density surface mounting and high speed assembly.

Ordering Information

Type No.	Laser Mark	Package Code
HZM5.6ZFA	56Z	MPAK-5

Pin Arrangement



Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Power dissipation	Pd *	200	mW
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C

Note: Four device total, See Fig.2.

Electrical Characteristics *¹

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Zener voltage	V _z	5.31	—	5.92	V	I _z = 5 mA, 40 ms pulse
Reverse current	I _R	—	—	0.5	μA	V _R = 2.5 V
Capacitance	C	—	8.0	8.5	pF	V _R = 0 V, f = 1 MHz
Dynamic resistance	r _d	—	—	80	Ω	I _z = 5 mA
ESD-Capability * ²	—	8	—	—	kV	C = 150 pF, R = 330 Ω, Both forward and reverse direction 10 pulse

Notes: 1. Per one device.

2. Failure criterion ; I_R > 0.5 μA at V_R = 2.5 V.

Main Characteristic

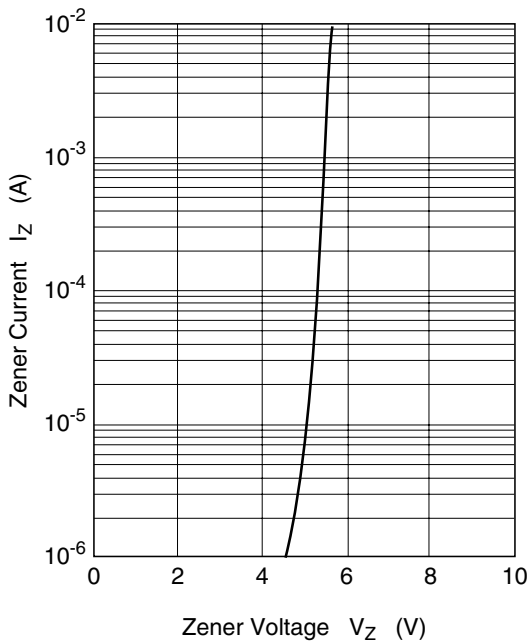


Fig.1 Zener current vs. Zener voltage

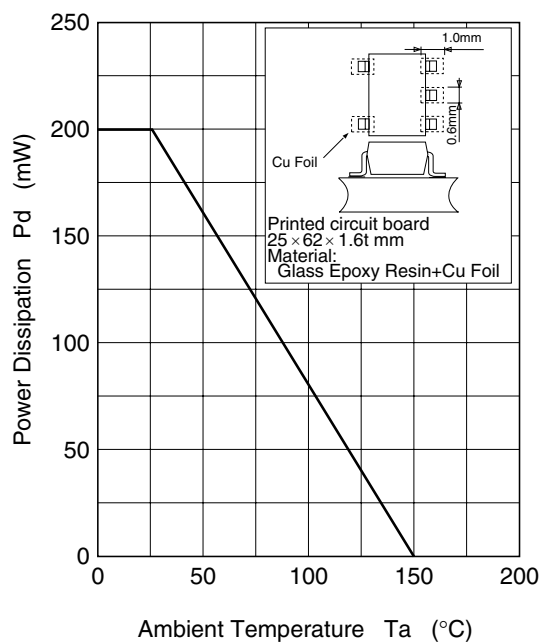


Fig.2 Power Dissipation vs. Ambient Temperature

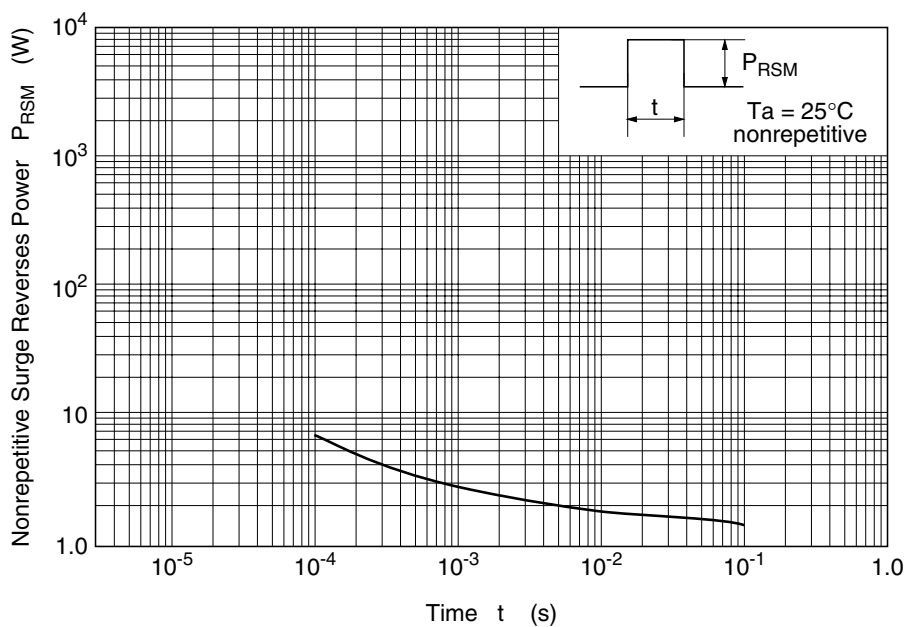


Fig.3 Surge Reverse Power Ratings

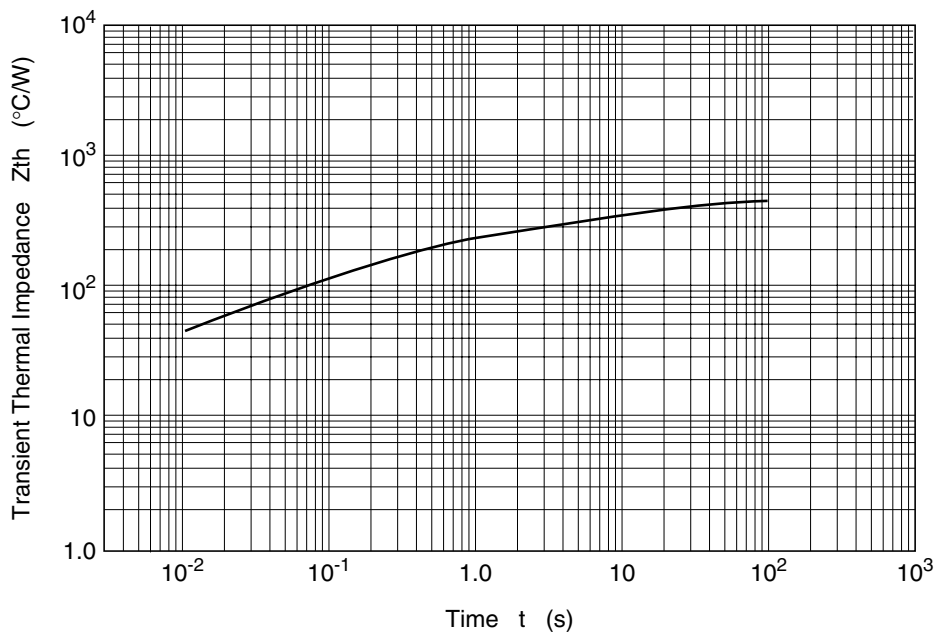
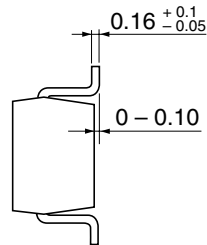
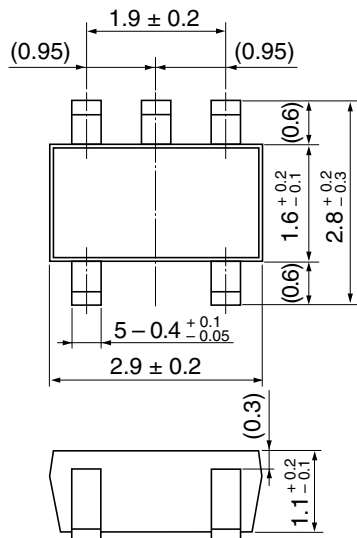


Fig.4 Transient Thermal Impedance

Package Dimensions

As of July, 2002
Unit: mm



Hitachi Code	MPAK-5
JEDEC	—
JEITA	—
Mass (reference value)	0.013 g

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