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

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Keep safety first in your circuit designs!

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HZB5.6MFA

Silicon Planar Zener Diode for Surge Absorb



ADE-208-1438 (Z)

Rev.0
Nov. 2001

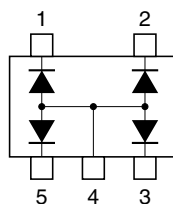
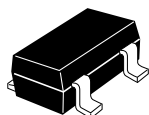
Features

- HZB5.6MFA has four devices in a monolithic, and can absorb surge.
- High ESD-Capability 30kV, human body model (IEC61000-4-2).
- CMPAK-5 Package is suitable for high density surface mounting.

Ordering Information

Type No.	Laser Mark	Package Code
HZB5.6MFA	56M	CMPAK-5

Pin Arrangement



(Top View)

1. Cathode
2. Cathode
3. Cathode
4. Anode
5. Cathode

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: Two 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	—	—	5	μA	V _R = 2.5 V
Capacitance	C	—	110	—	pF	V _R = 0 V, f = 1 MHz
Dynamic resistance	r _d	—	—	80	Ω	I _z = 5 mA
ESD-Capability * ² , * ³	—	30	—	—	kV	C = 150 pF, R = 330 Ω, Both forward and reverse direction 10 pulse

Notes: 1. Per one device.

2. Failure criterion ; I_R > 5 μA at V_R = 2.5 V.

3. Between cathode and anode.

Main Characteristic

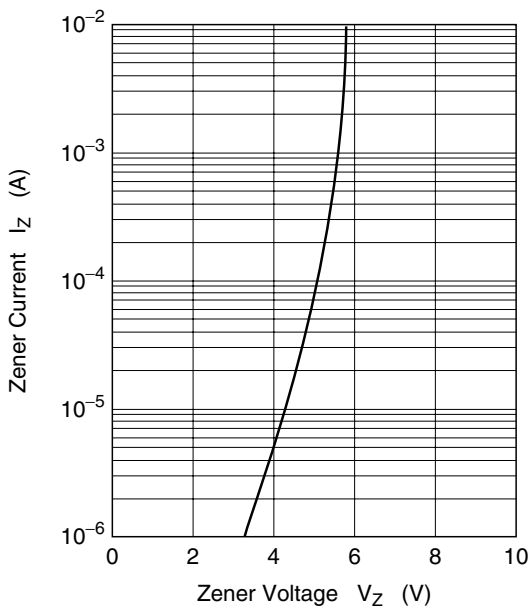


Fig.1 Zener Current vs. Zener Voltage

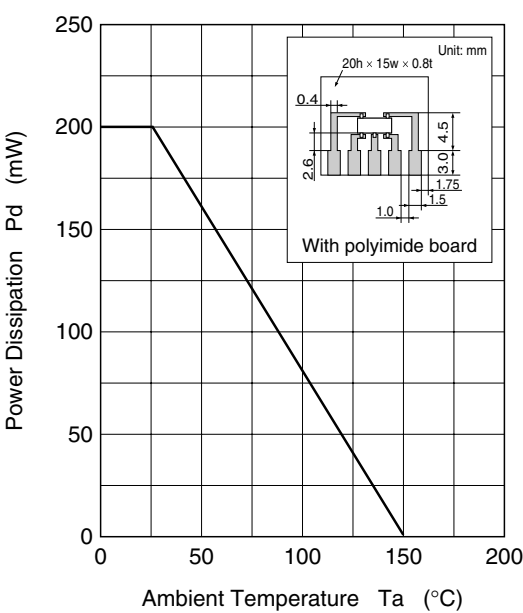


Fig.2 Power Dissipation vs. Ambient Temperature

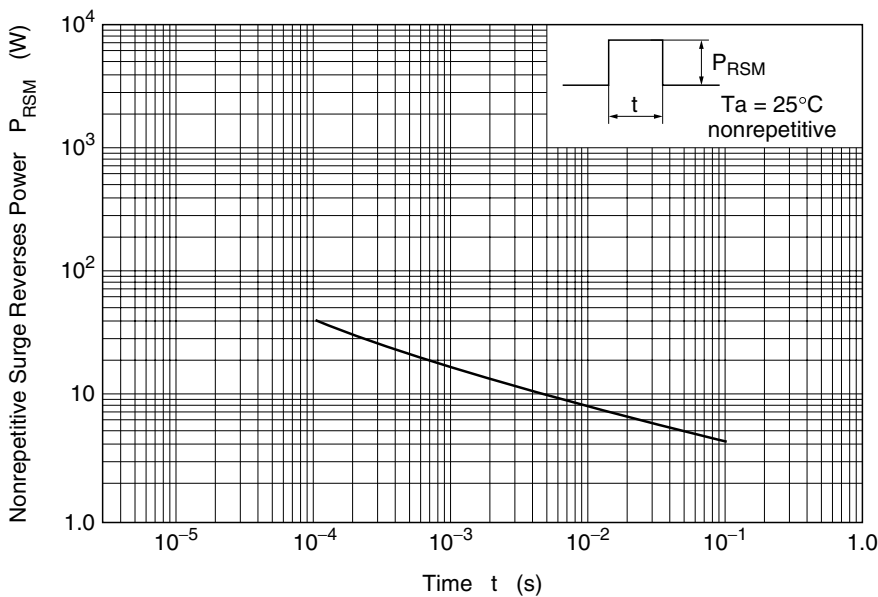


Fig.3 Surge Reverse Power Ratings

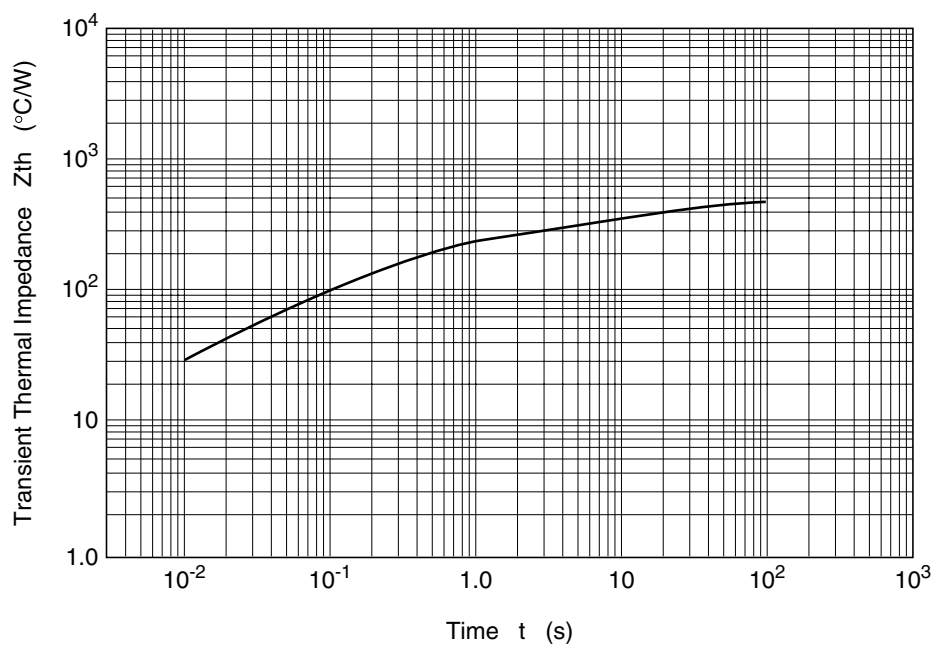
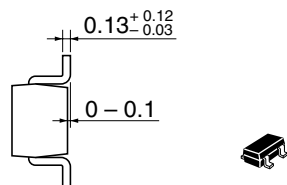
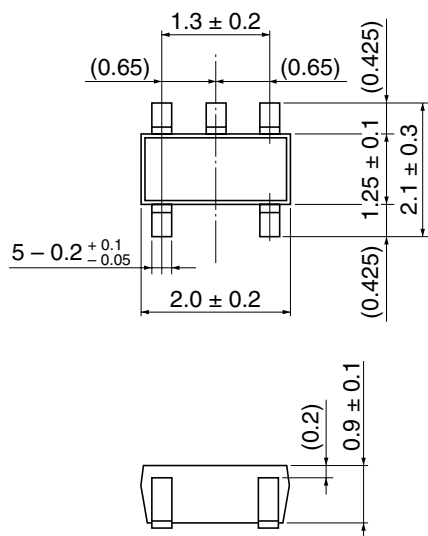


Fig.4 Transient Thermal Impedance

Package Dimensions

As of July, 2001
Unit: mm



Hitachi Code	CMPAK-5
JEDEC	—
JEITA	Conforms
Mass (reference value)	0.006 g

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