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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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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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HZB6.8ZMFA

Silicon Planar Zener Diode for Surge Absorb



ADE-208-993A (Z)

Rev.1
Nov. 2001

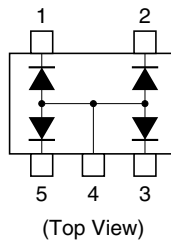
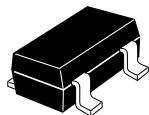
Features

- HZB6.8ZMFA has four devices in a monolithic, and can absorb surge.
- Low capacitance ($C = 25 \text{ pF max}$) and can protect ESD of signal line.
- CMPAK-5 Package is suitable for high density surface mounting.

Ordering Information

Type No.	Laser Mark	Package Code
HZB6.8ZMFA	68N	CMPAK-5

Pin Arrangement



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: Four device total, See Fig.2.

Electrical Characteristics *¹

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Zener voltage	V _z	6.47	—	7.00	V	I _z = 5 mA, 40 ms pulse
Reverse current	I _R	—	—	2	μA	V _R = 3.5 V
Capacitance	C	—	—	25	pF	V _R = 0 V, f = 1 MHz
Dynamic resistance	r _d	—	—	30	Ω	I _z = 5 mA
ESD-Capability * ² , * ³	—	25	—	—	kV	C = 150 pF, R = 330 Ω, Both forward and reverse direction 10 pulse

Notes: 1. Per one device.

2. Failure criterion ; I_R > 2 μA at V_R = 3.5 V.

3. Between cathode and anode

Main Characteristic

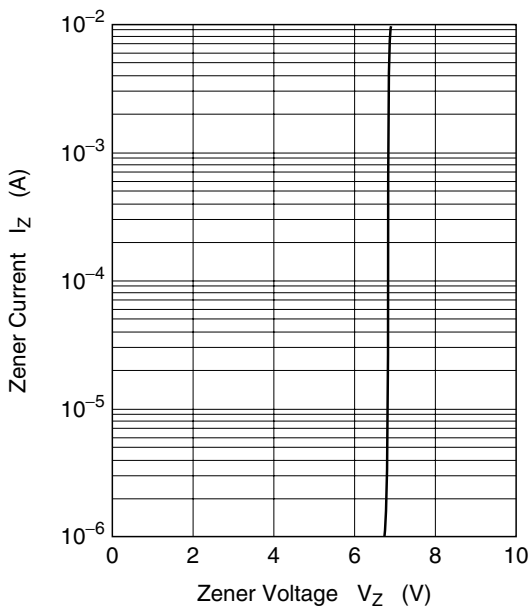


Fig.1 Zener Current vs. Zener Voltage

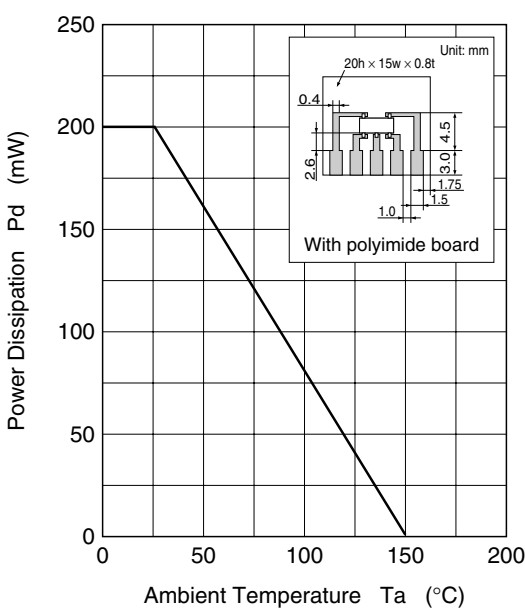


Fig.2 Power Dissipation vs. Ambient Temperature

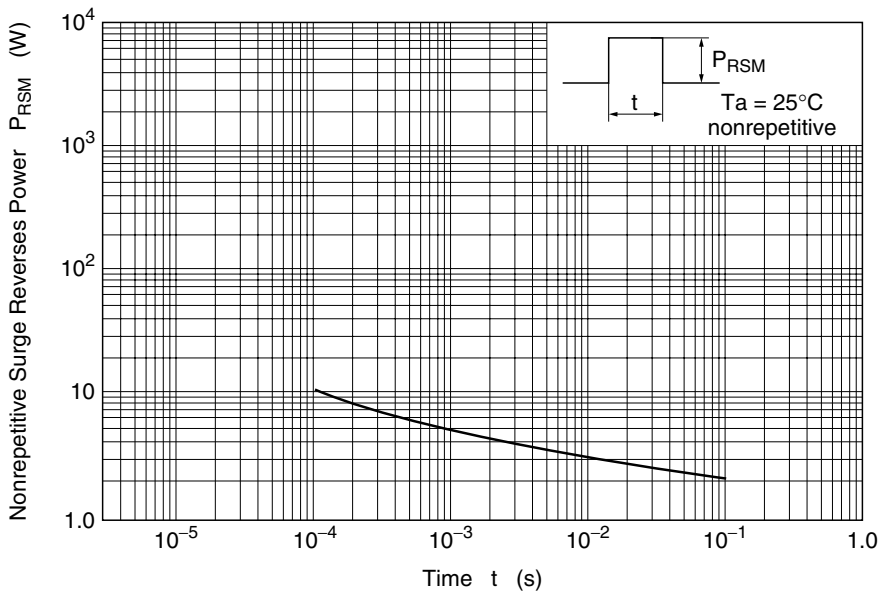


Fig.3 Surge Reverse Power Ratings

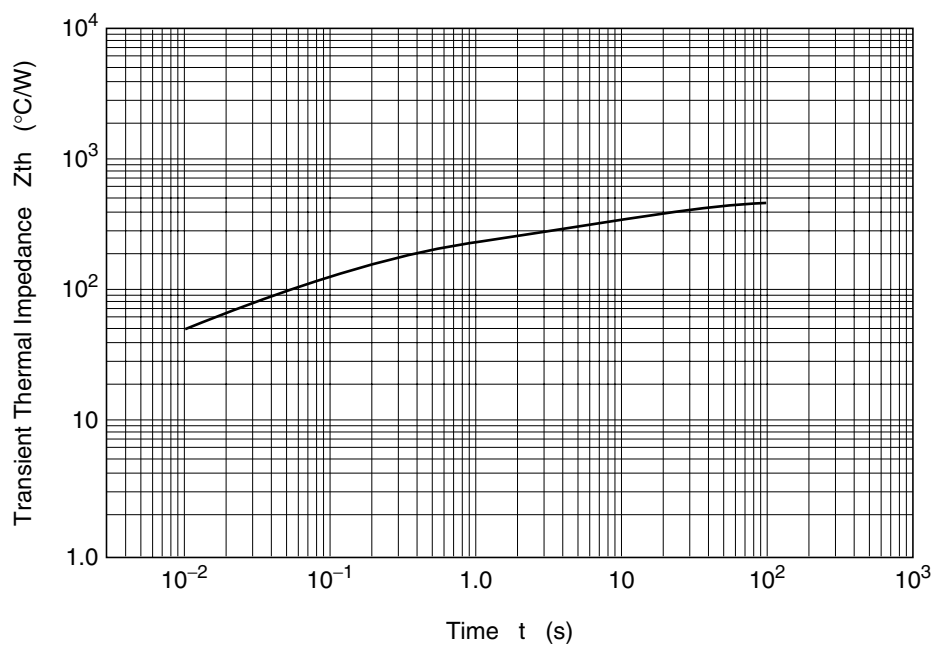
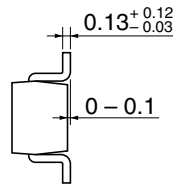
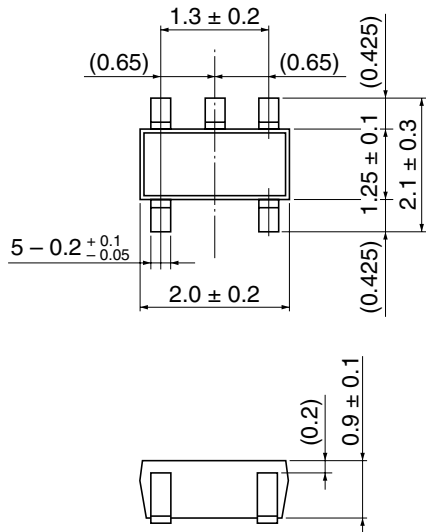


Fig.4 Transient Thermal Impedance

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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