

HZB5.6MFA

Silicon Planar Zener Diode for Surge Absorb

HITACHI

ADE-208-1438 (Z)

Rev.0
Nov. 2001

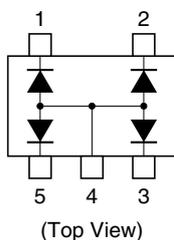
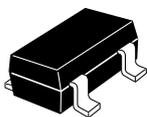
Features

- 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



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

Absolute Maximum Ratings

($T_a = 25^\circ\text{C}$)

Item	Symbol	Value	Unit
Power dissipation	P_d *	200	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

Note: Two device total, See Fig.2.

Electrical Characteristics *¹

($T_a = 25^\circ\text{C}$)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Zener voltage	V_z	5.31	—	5.92	V	$I_z = 5\text{ mA}$, 40 ms pulse
Reverse current	I_R	—	—	5	μA	$V_R = 2.5\text{ V}$
Capacitance	C	—	110	—	pF	$V_R = 0\text{ V}$, $f = 1\text{ MHz}$
Dynamic resistance	r_d	—	—	80	Ω	$I_z = 5\text{ mA}$
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 ; $I_R > 5\ \mu\text{A}$ at $V_R = 2.5\text{ V}$.

3. Between cathode and anode.

Main Characteristic

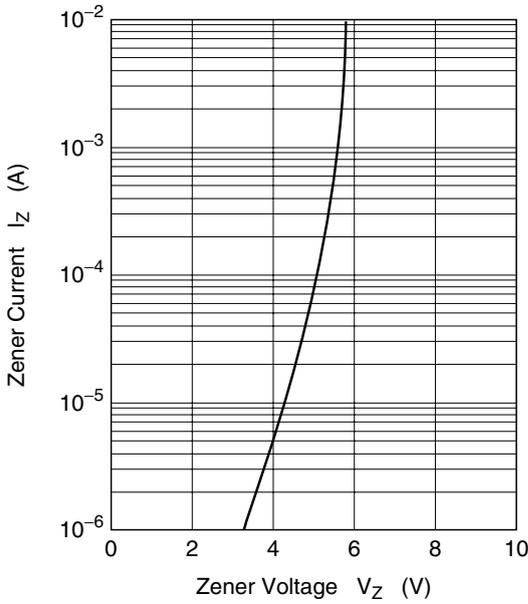


Fig.1 Zener Current vs. Zener Voltage

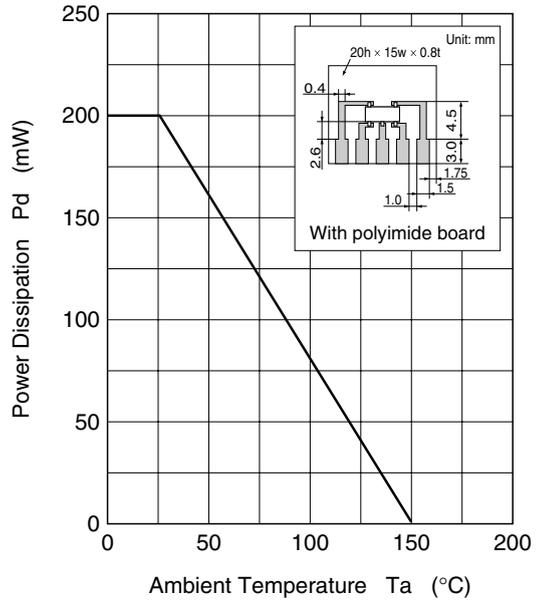


Fig.2 Power Dissipation vs. Ambient Temperature

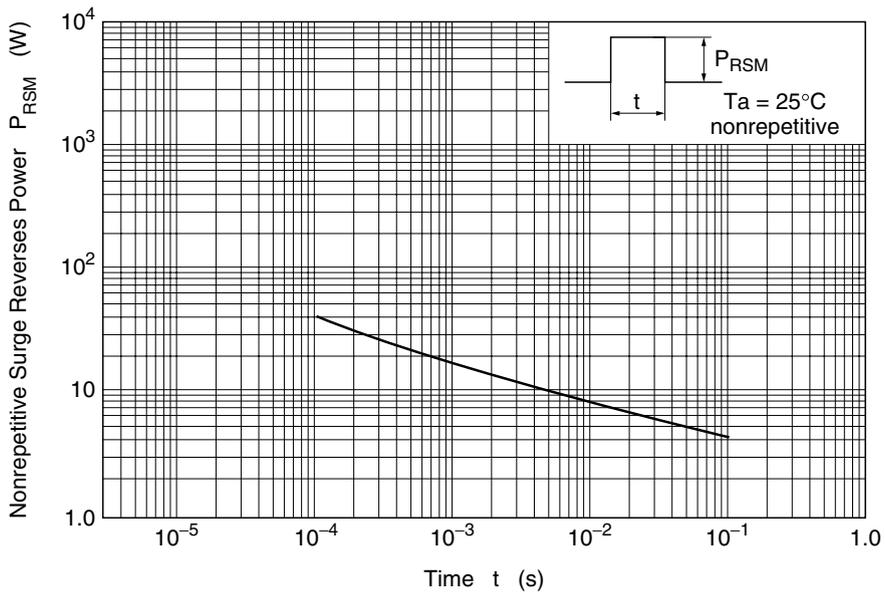


Fig.3 Surge Reverse Power Ratings

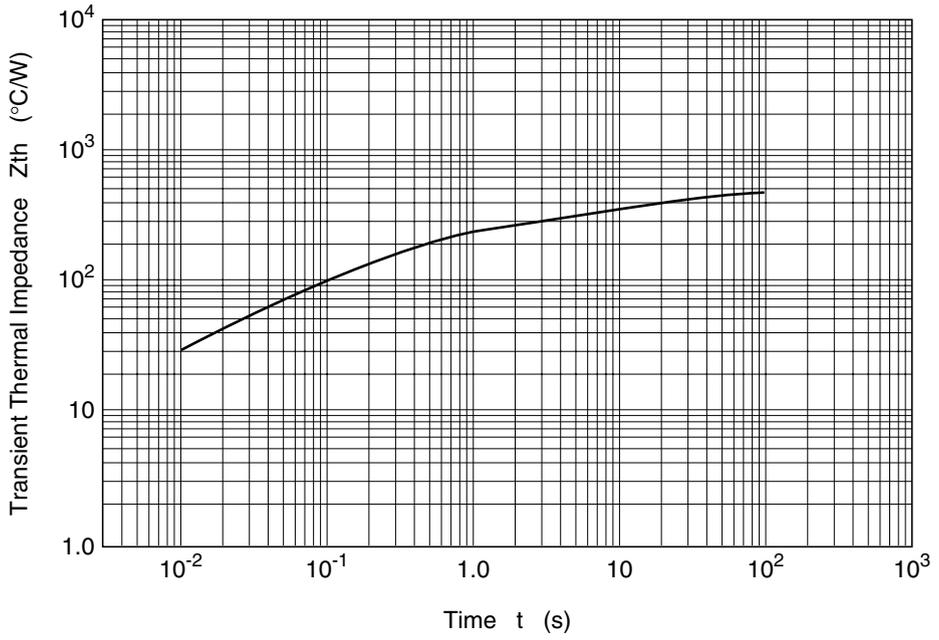
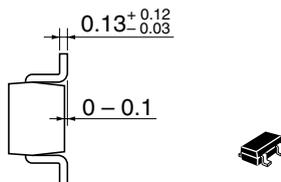
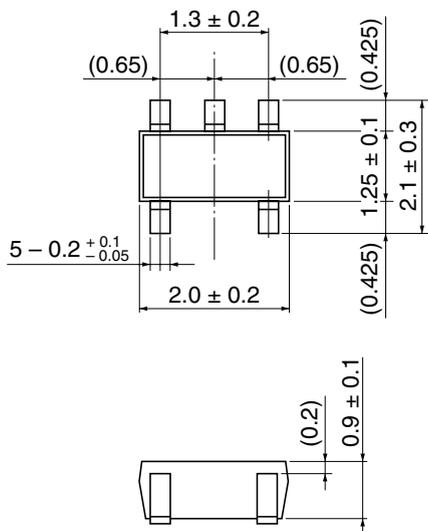


Fig.4 Transient Thermal Impedance

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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