

# HZM6.8ZWA

Silicon Epitaxial Planar Zener Diode for Surge Absorb

# HITACHI

ADE-208-613A(Z)

Rev 1

Jan. 1999

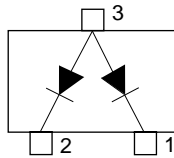
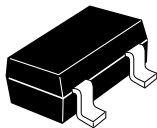
## Features

- HZM6.8ZWA has two devices, and can absorb external + and -surge.
- Low capacitance ( $C=25\text{pF}$  max) and can protect ESD of signal line.
- MPAK Package is suitable for high density surface mounting and high speed assembly.

## Ordering Information

Type No.	Laser Mark	Package Code
HZM6.8ZWA	68Z	MPAK

## Outline



(Top View)

1 Cathode

2 Cathode

3 Anode

## Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Value	Unit
Power dissipation	Pd <sup>1</sup>	200	mW
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C

Note 1. Two device total, See Fig.2.

## Electrical Characteristics (Ta = 25°C) <sup>\*1</sup>

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Zener voltage	V <sub>Z</sub>	6.47	—	7.00	V	I <sub>Z</sub> = 5 mA, 40ms pulse
Reverse current	I <sub>R</sub>	—	—	2	μA	V <sub>R</sub> = 3.5V
Capacitance	C	—	—	25	pF	V <sub>R</sub> = 0V, f = 1 MHz
Dynamic resistance	r <sub>d</sub>	—	—	30	Ω	I <sub>Z</sub> = 5 mA
ESD-Capability <sup>2</sup>	—	20	—	—	kV	C = 150pF, R = 330 Ω, Both forward and reverse direction 10 pulse

Notes 1. Per one device.

2. Failure criterion ; IR > 2 μA at VR = 3.5V.

Main Characteristic

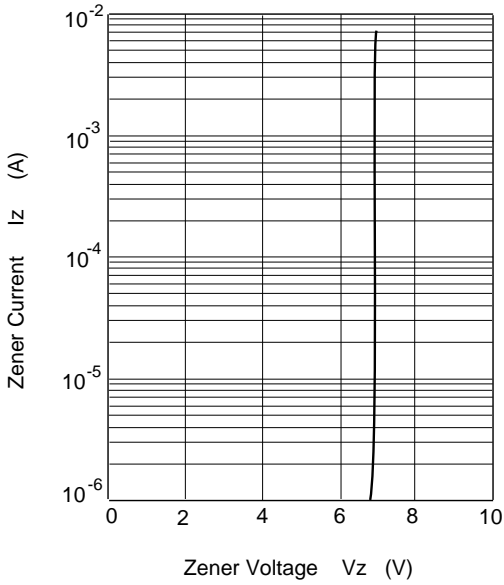


Fig.1 Zener current Vs. Zener voltage

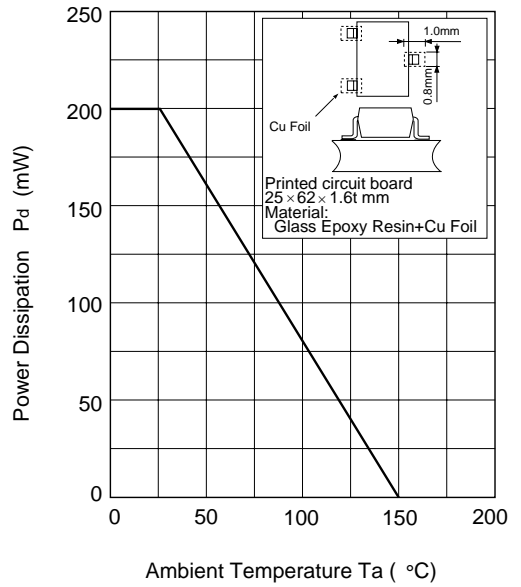


Fig.2 Power Dissipation Vs. Ambient Temperature

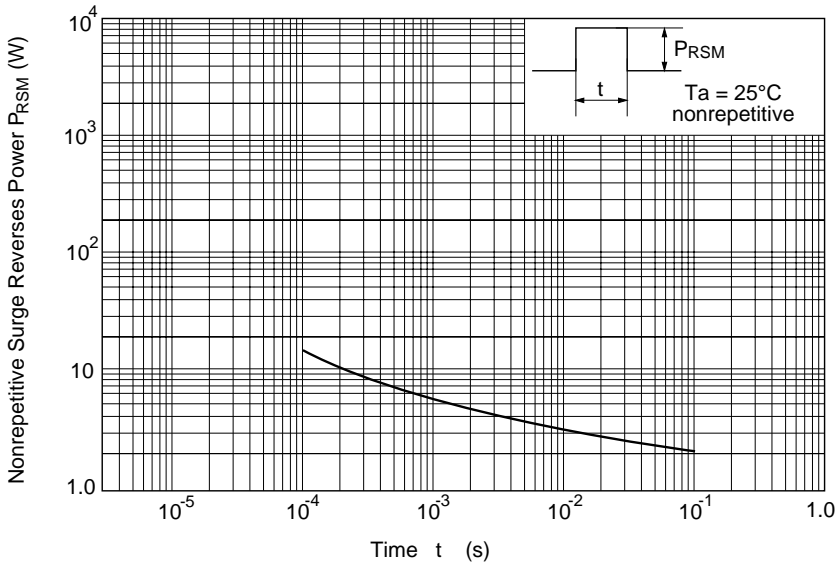


Fig.3 Surge Reverse Power Ratings

**Main Characteristic**

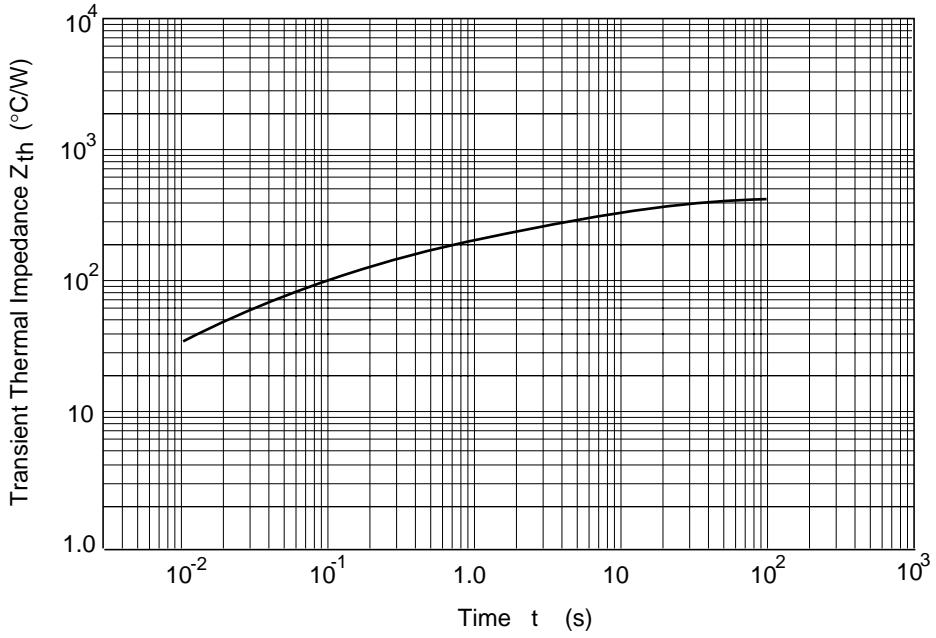
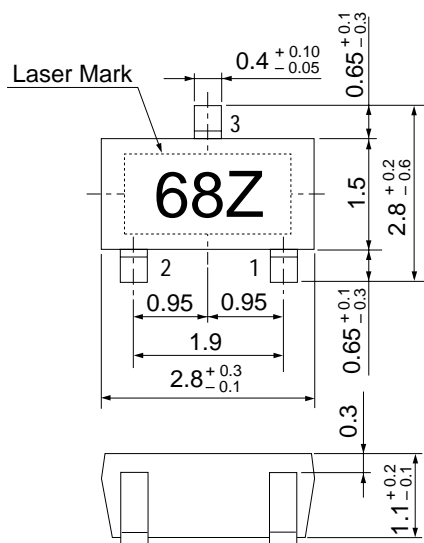


Fig.4 Transient Thermal Impedance

Package Dimensions

Unit : mm



- 1 Cathode
- 2 Cathode
- 3 Anode

Hitachi Code	MPAK(1)
JEDEC Code	—
EIAJ Code	SC-59A
Weight (g)	0.011

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