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# HZM6.8ZFA

Silicon Epitaxial Planar Zener Diode for Surge Absorb

# HITACHI

ADE-208-614A(Z)

Rev 1

Dec. 1, 1998

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## Features

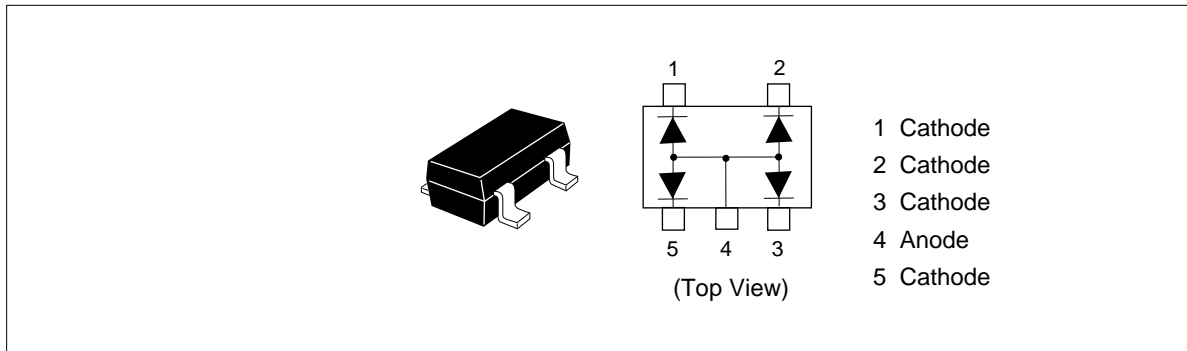
- HZM6.8ZFA has four devices, and can absorb external + and -surge.
- Low capacitance ( $C=25\text{pF}$  max) and can protect ESD of signal line.
- MPAK-5 Package is suitable for high density surface mounting and high speed assembly.

## Ordering Information

Type No.	Laser Mark	Package Code
HZM6.8ZFA	68Z	MPAK-5

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## Outline



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## HZM6.8ZF A

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### 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. Four 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>	Δ	20	—	—	kV	C = 150pF, R = 330 Ω, Both forward and reverse direction 10 pulse

Notes 1. Per one device.

2. Failure criterion ; I<sub>R</sub> < 2 μA at V<sub>R</sub> = 3.5V.

Main Characteristic

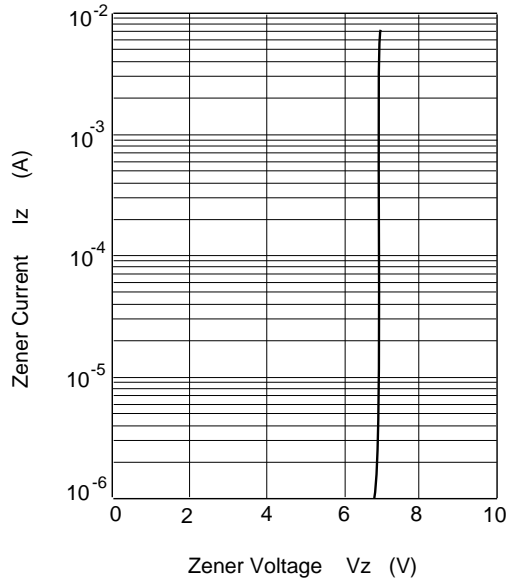


Fig.1 Zener current Vs. Zener voltage

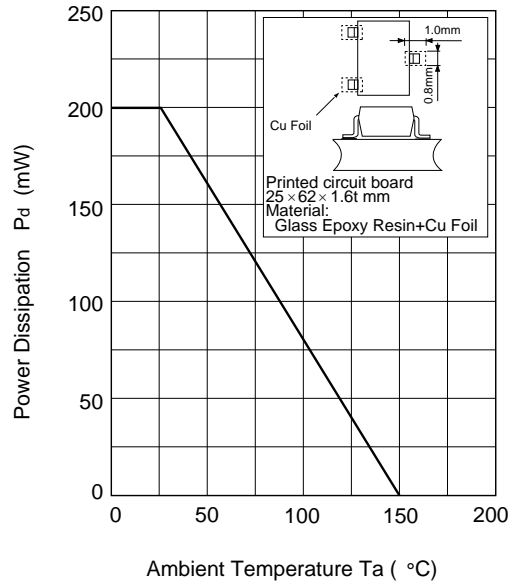


Fig.2 Power Dissipation Vs. Ambient Temperature

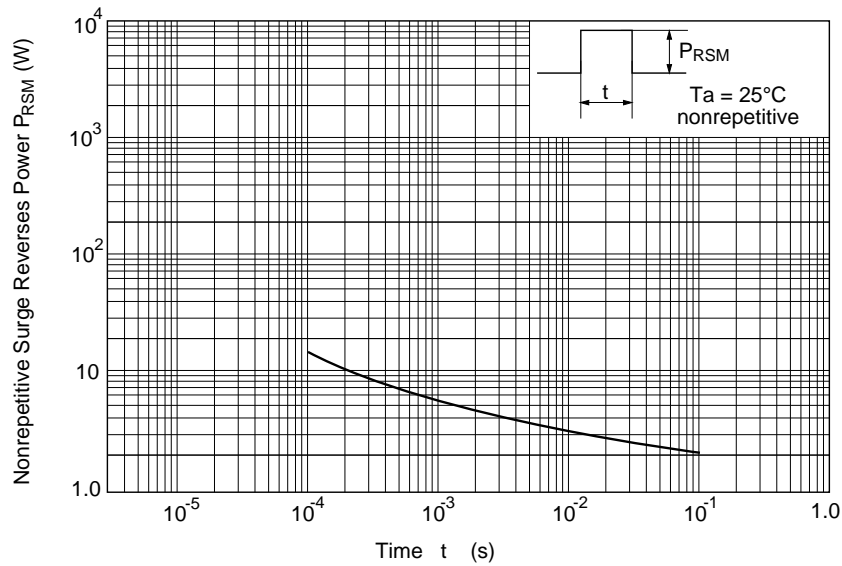


Fig.3 Surge Reverse Power Ratings

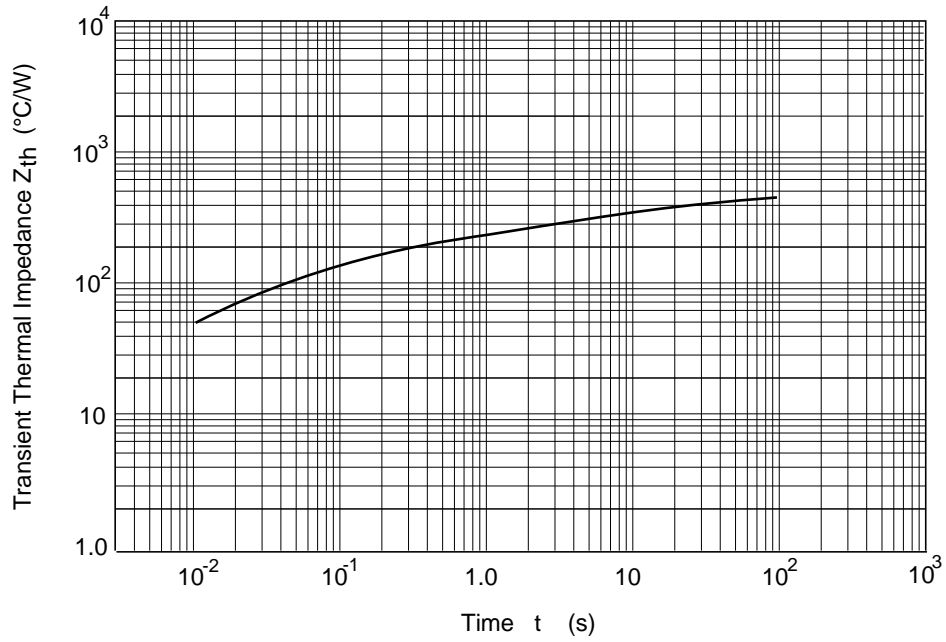
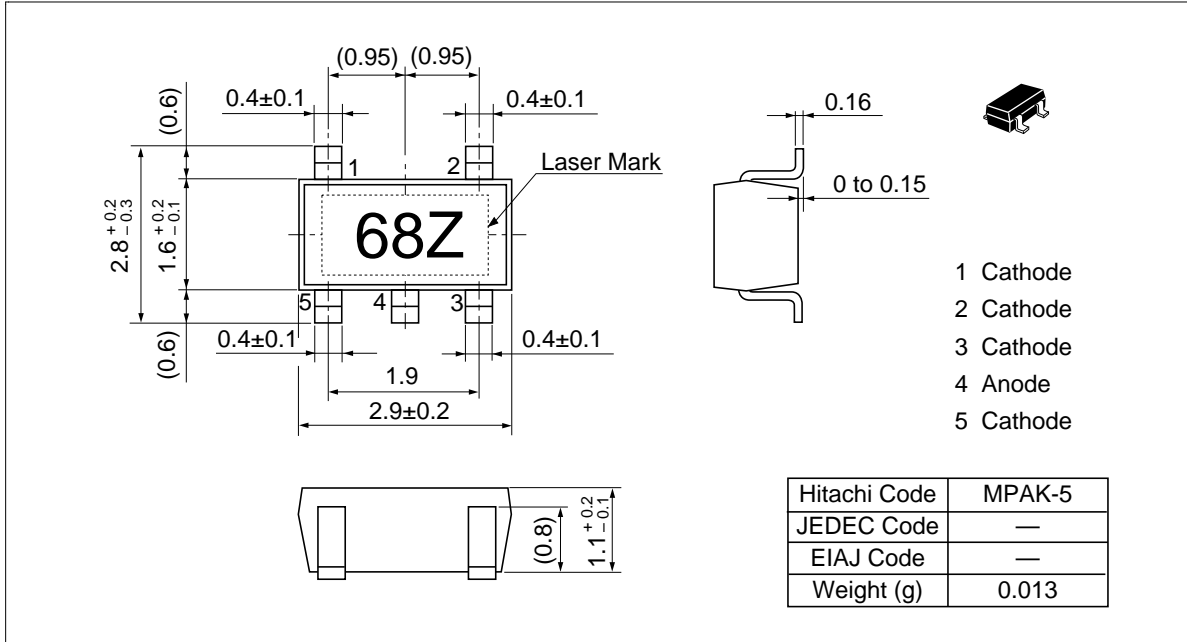
**Main Characteristic**

Fig.4 Transient Thermal Impedance

**Package Dimensions (Unit : mm)**



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