## Silicon Epitaxial Planar Zener Diode for Surge Absorb

# **HITACHI**

ADE-208-616 (Z) Rev 0 April 1, 1998

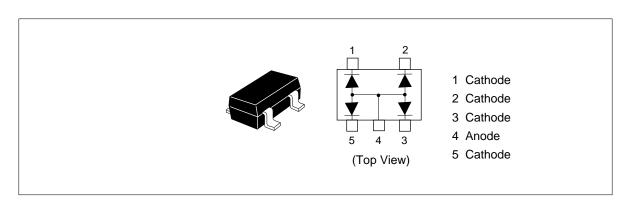
#### **Features**

- HZM7.5FA has four devices, and can absorb external + and -surge.
- MPAK-5 Package is suitable for high density surface mounting and high speed assembly.

#### **Ordering Information**

Type No.	Laser Mark	Package Code
HZM7.5FA	75A	MPAK-5

#### **Outline**



## Absolute Maximum Ratings ( $Ta = 25^{\circ}C$ )

Item	Symbol	Value	Unit	
Power dissipation	Pd *1	200	mW	
Junction temperature	Тј	150	°C	
Storage temperature	Tstg	-55 to +150	°C	

Note 1. Four device total, With P.C board.

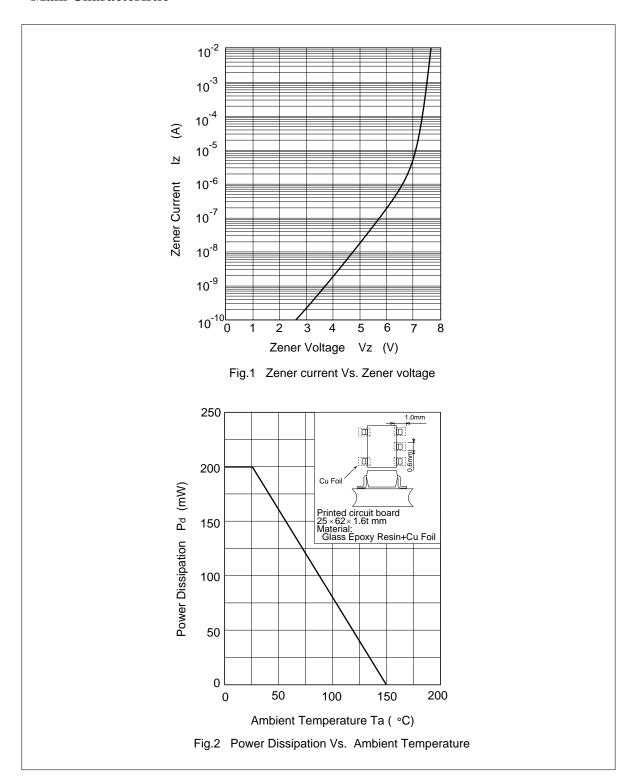
## Electrical Characteristics (Ta = $25^{\circ}$ C) \*2

Item	Symbol	Min	Тур	Max	Unit	Test Condition
Zener voltage	$V_z$	7.06	_	7.84	V	$I_z = 5 \text{ mA}$ , 40ms pulse
Reverse current	I <sub>R</sub>	_	_	2	μΑ	$V_R = 4V$
Capacitance	С	_	_	125	pF	V <sub>R</sub> = 0V, f = 1 MHz
Dynamic resistance	r <sub>d</sub>	_	_	30	Ω	$I_z = 5 \text{ mA}$
ESD-Capability *1	_	30	_	_	kV	C =150pF, R = 330 $\Omega$ , Both forward and reverse direction 10 pulse

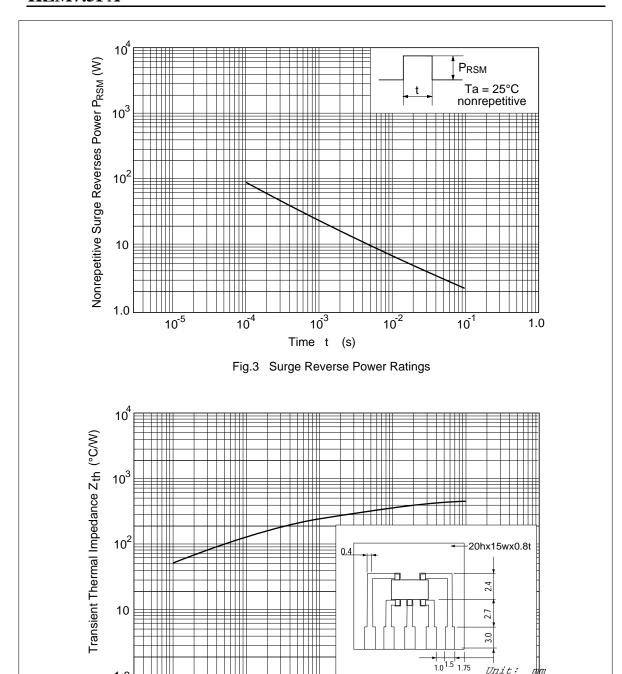
Notes 1. Failure criterion; IR > 2  $\mu$ A at VR = 4V.

2. Per one device.

#### **Main Characteristic**



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Time t (s) Fig.4 Transient Thermal Impedance

1.0

10

Un.

10<sup>2</sup>

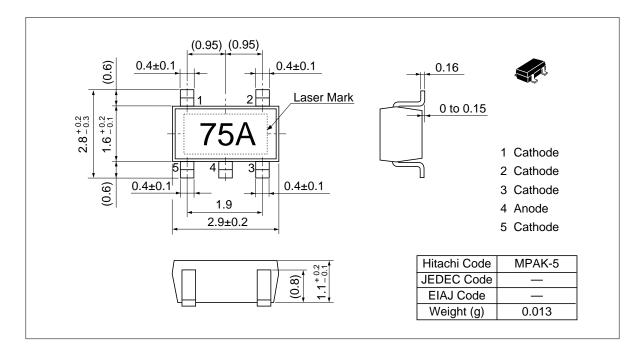
10<sup>3</sup>

1.0

10<sup>-2</sup>

10<sup>1</sup>

## Package Dimensions (Unit: mm)



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