

HZM5.6ZFA

Silicon Epitaxial Planar Zener Diode for Surge Absorb

HITACHI

ADE-208-796 (Z)
Rev 0
May. 1999

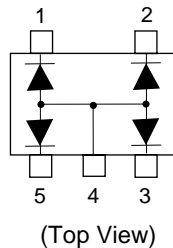
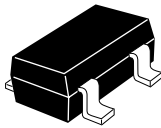
Features

- HZM5.6ZFA has four devices, and can absorb external + and -surge.
- Low capacitance ($C=8.5\text{pF}$ 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 |
|-----------|------------|--------------|
| HZM5.6ZFA | 56Z | MPAK-5 |

Outline



- 1 Cathode
- 2 Cathode
- 3 Cathode
- 4 Anode
- 5 Cathode

Absolute Maximum Ratings (Ta = 25°C)

| Item | Symbol | Value | Unit |
|----------------------|-----------------|-------------|------|
| Power dissipation | Pd ¹ | 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) ^{*1}

| Item | Symbol | Min | Typ | Max | Unit | Test Condition |
|-----------------------------|----------------|------|-----|------|------|---|
| Zener voltage | V _Z | 5.31 | — | 5.92 | V | I _Z = 5 mA, 40ms pulse |
| Reverse current | I _R | — | — | 0.5 | μA | V _R = 2.5V |
| Capacitance | C | — | 8.0 | 8.5 | pF | V _R = 0V, f = 1 MHz |
| Dynamic resistance | r _d | — | — | 80 | Ω | I _Z = 5 mA |
| ESD-Capability ² | — | 8 | — | — | kV | C = 150pF, R = 330 Ω, Both forward and reverse direction 10 pulse |

Notes 1. Per one device.

2. Failure criterion ; IR > 0.5μA at VR = 2.5V.

Main Characteristic

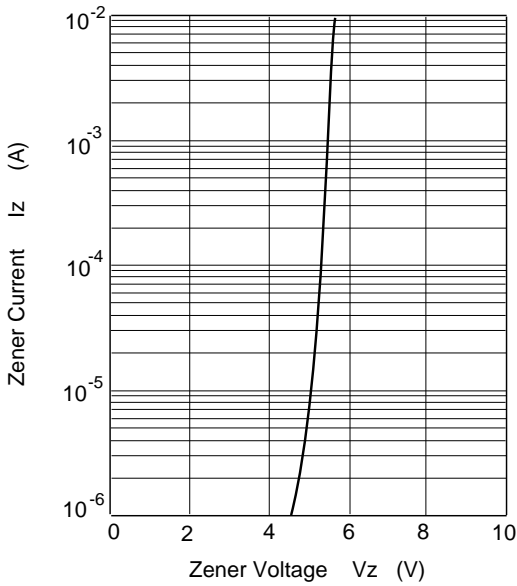


Fig.1 Zener current Vs. Zener voltage

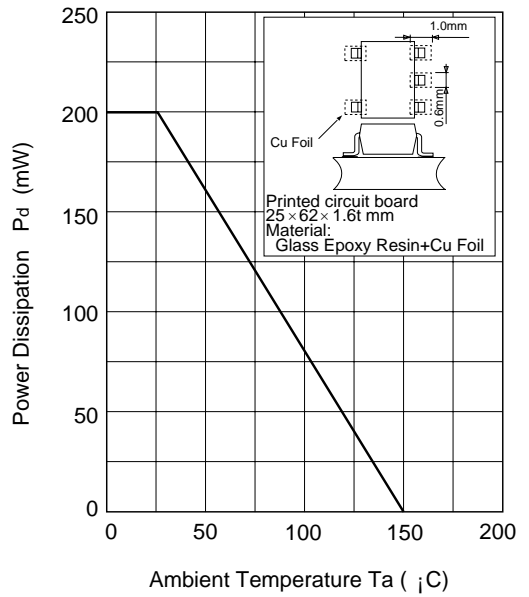


Fig.2 Power Dissipation Vs. Ambient Temperature

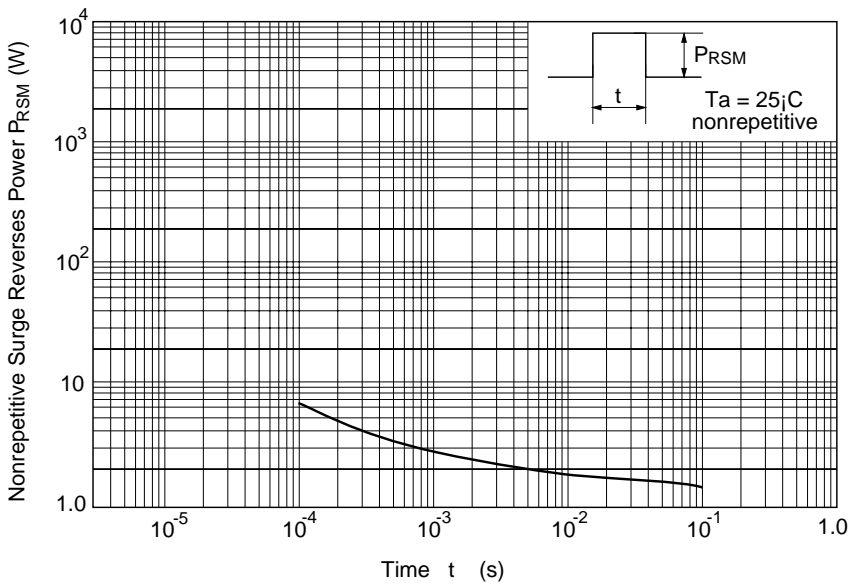


Fig.3 Surge Reverse Power Ratings

Main Characteristic

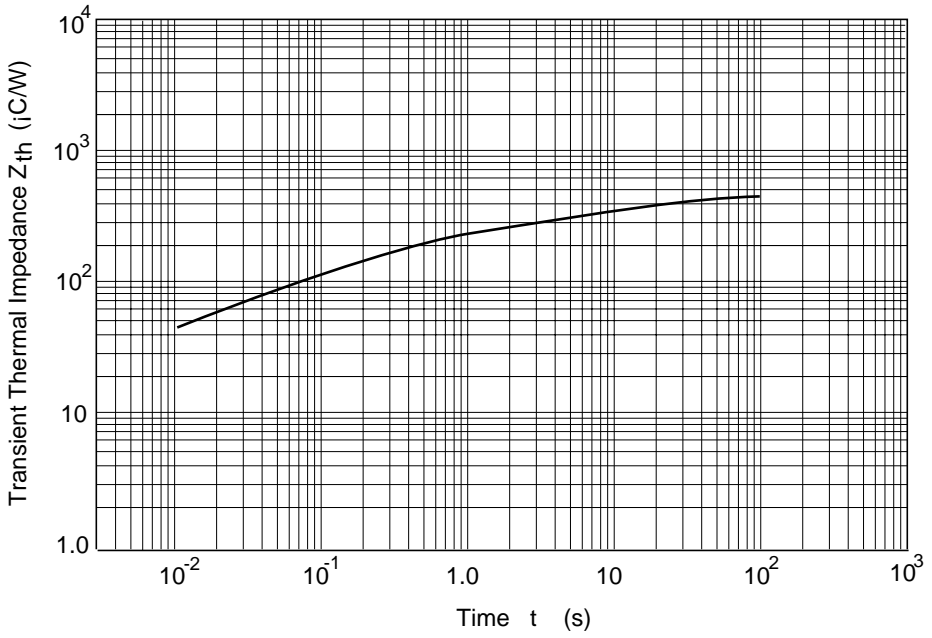
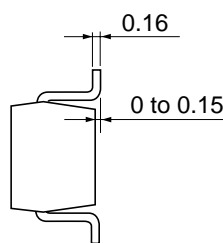
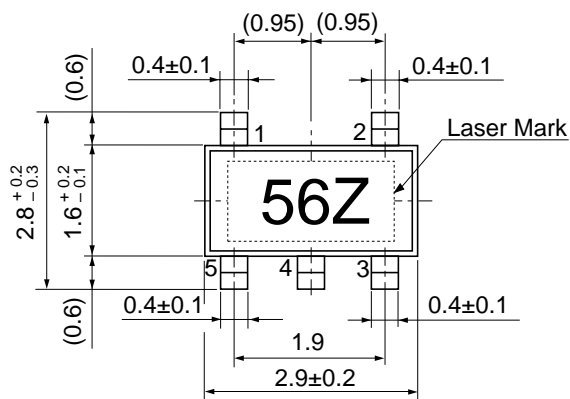


Fig.4 Transient Thermal Impedance

Package Dimensions

Unit : mm



- 1 Cathode
- 2 Cathode
- 3 Cathode
- 4 Anode
- 5 Cathode



| | |
|--------------|--------|
| Hitachi Code | MPAK-5 |
| JEDEC Code | — |
| EIAJ Code | — |
| Weight (g) | 0.013 |

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Hitachi, Ltd.

Semiconductor & Integrated Circuits.
Nippon Bldg., 2-6-2, Ohte-machi, Chiyoda-ku, Tokyo 100-0004, Japan
Tel: Tokyo (03) 3270-2111 Fax: (03) 3270-5109

URL North America : <http://semiconductor.hitachi.com/>
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For further information write to:

Hitachi Semiconductor
(America) Inc.
179 East Tasman Drive,
San Jose, CA 95134
Tel: <1> (408) 433-1990
Fax: <1>(408) 433-0223

Hitachi Europe GmbH
Electronic components Group
Dornacher Straße 3
D-85622 Feldkirchen, Munich
Germany
Tel: <49> (89) 9 9180-0
Fax: <49> (89) 9 29 30 00

Hitachi Europe Ltd.
Electronic Components Group.
Whitebrook Park
Lower Cookham Road
Maidenhead
Berkshire SL6 8YA, United Kingdom
Tel: <44> (1628) 585000
Fax: <44> (1628) 778322

Hitachi Asia Pte. Ltd.
16 Collyer Quay #20-00
Hitachi Tower
Singapore 049318
Tel: 535-2100
Fax: 535-1533

Hitachi Asia Ltd.
Taipei Branch Office
3F, Hung Kuo Building, No.167,
Tun-Hwa North Road, Taipei (105)
Tel: <886> (2) 2718-3666
Fax: <886> (2) 2718-8180

Hitachi Asia (Hong Kong) Ltd.
Group III (Electronic Components)
7/F., North Tower, World Finance Centre,
Harbour City, Canton Road, Tsim Sha Tsui,
Kowloon, Hong Kong
Tel: <852> (2) 735 9218
Fax: <852> (2) 730 0281
Telex: 40815 HITEC HX

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