

HZM6.8ZMFA

Silicon Planar Zener Diode for Surge Absorb

HITACHI

ADE-208-783A(Z)

Rev 1

Nov. 1999

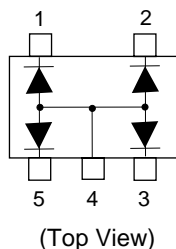
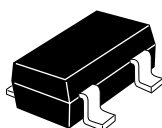
Features

- HZM6.8ZMFA has four devices in a monolithic, and can absorb 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 |
|------------|------------|--------------|
| HZM6.8ZMFA | 68N | 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 | 6.47 | — | 7.00 | V | I _Z = 5 mA, 40ms pulse |
| Reverse current | I _R | — | — | 2 | μA | V _R = 3.5V |
| Capacitance | C | — | — | 25 | pF | V _R = 0V, f = 1 MHz |
| Dynamic resistance | r _d | — | — | 30 | Ω | I _Z = 5 mA |
| ESD-Capability ^{*2 *3} | — | 25 | — | — | kV | C = 150pF, R = 330Ω, Both forward and reverse direction 10 pulse |

- Notes
1. Per one device.
 2. Failure criterion ; I_R > 2 μA at V_R = 3.5V.
 3. Between cathode and anode.

Main Characteristic

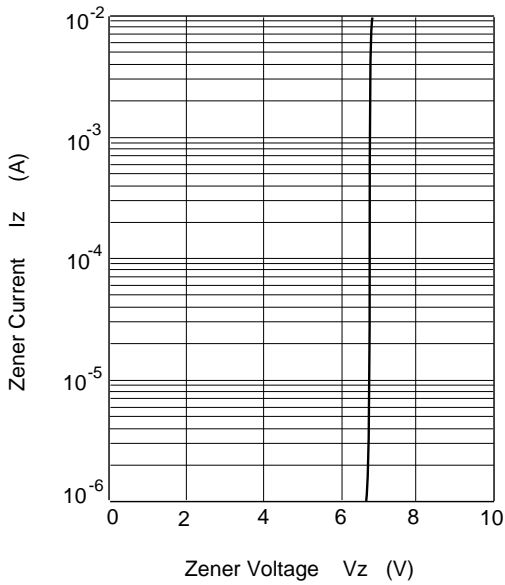


Fig.1 Zener current Vs. Zener voltage

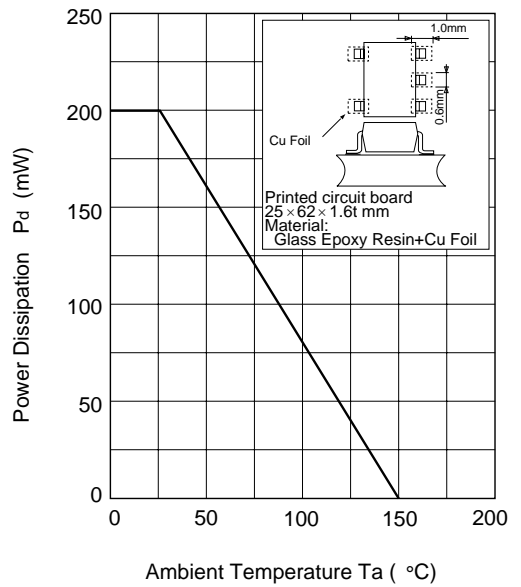


Fig.2 Power Dissipation Vs. Ambient Temperature

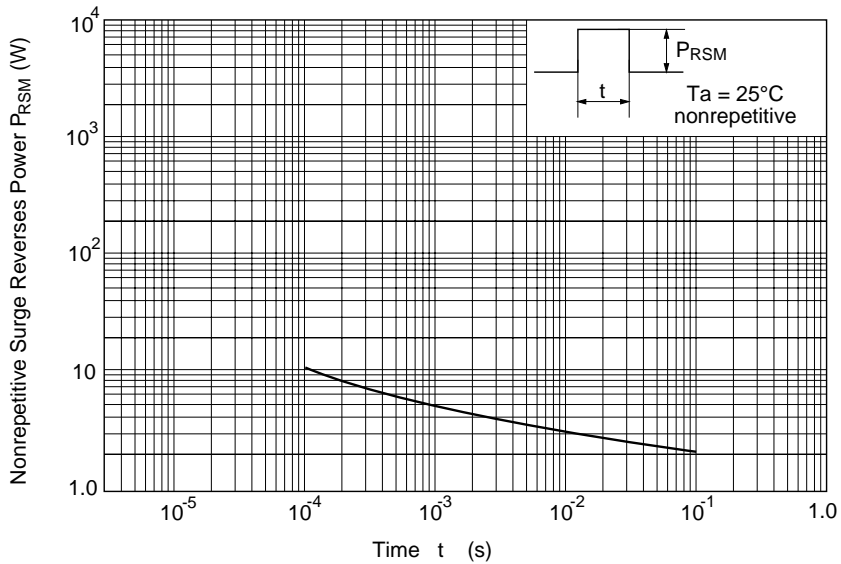


Fig.3 Surge Reverse Power Ratings

Main Characteristic

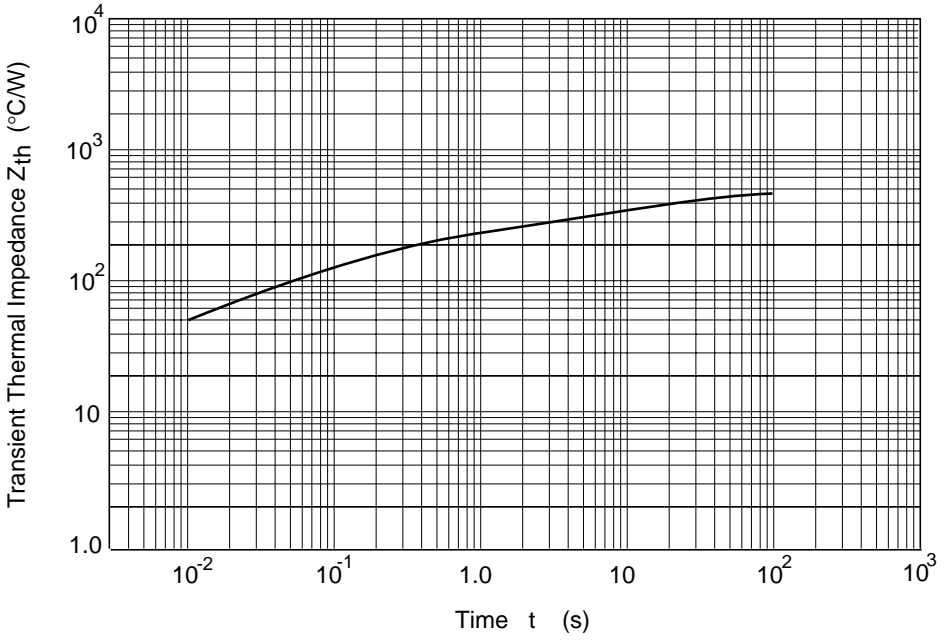
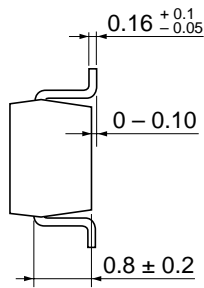
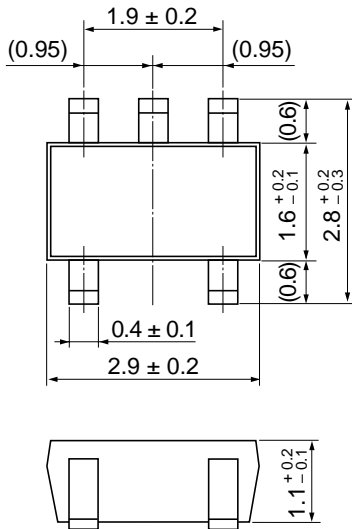


Fig.4 Transient Thermal Impedance

Package Dimensions

Unit: mm



| | |
|--------------|---------|
| Hitachi Code | MPAK-5 |
| JEDEC | — |
| EIAJ | — |
| Mass | 0.013 g |

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