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Renesas Electronics website: <http://www.renesas.com>

April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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HZU5.6Z

Silicon Epitaxial Planar Zener Diode for Surge Absorb

REJ03G1217-0200
 (Previous: ADE-208-795A)
 Rev.2.00
 Jun 16, 2005

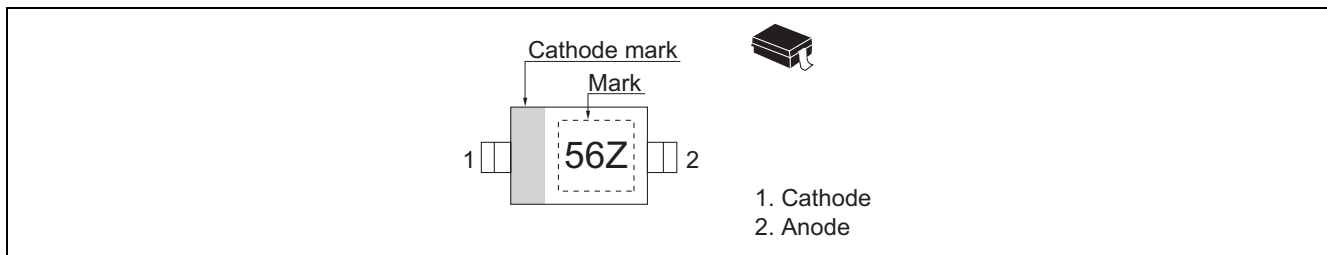
Features

- Low capacitance ($C = 8.5 \text{ pF max}$) and can protect signal line from ESD.
- Ultra small Resin Package (URP) is suitable for surface mount design.

Ordering Information

| Type No. | Laser Mark | Package Name | Package Code (Previous Code) |
|----------|------------|--------------|------------------------------|
| HZU5.6Z | 56Z | URP | PTSP0002ZA-A (URP) |

Pin Arrangement



Absolute Maximum Ratings

(Ta = 25°C)

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

Note: See Fig.2.

Electrical Characteristics

(Ta = 25°C)

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

Note: Failure criterion ; IR > 0.5 μA at VR = 2.5 V

Main Characteristic

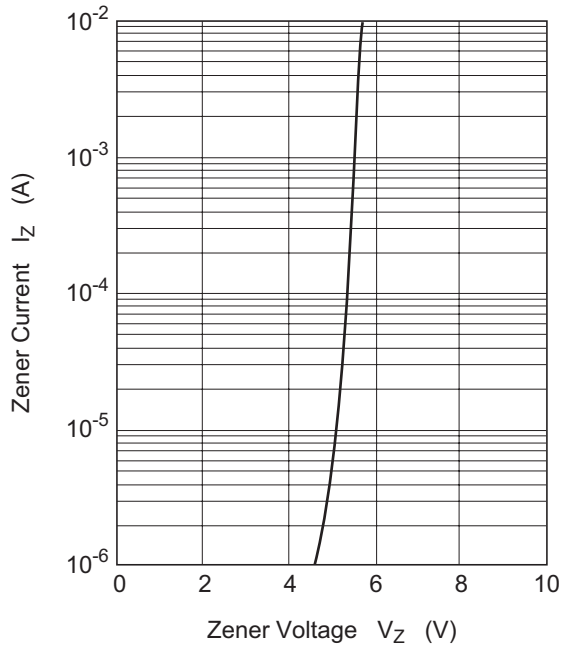


Fig.1 Zener current vs. Zener voltage

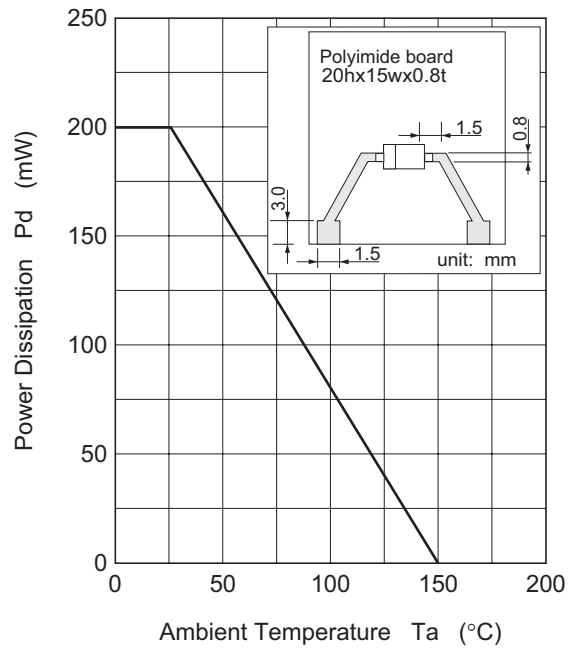


Fig.2 Power Dissipation vs. Ambient Temperature

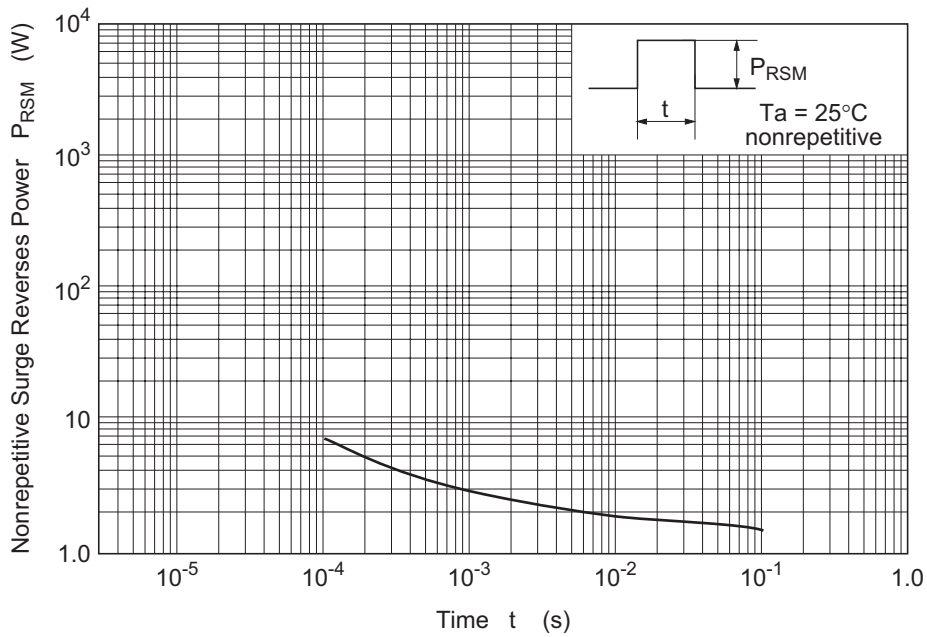


Fig.3 Surge Reverse Power Ratings

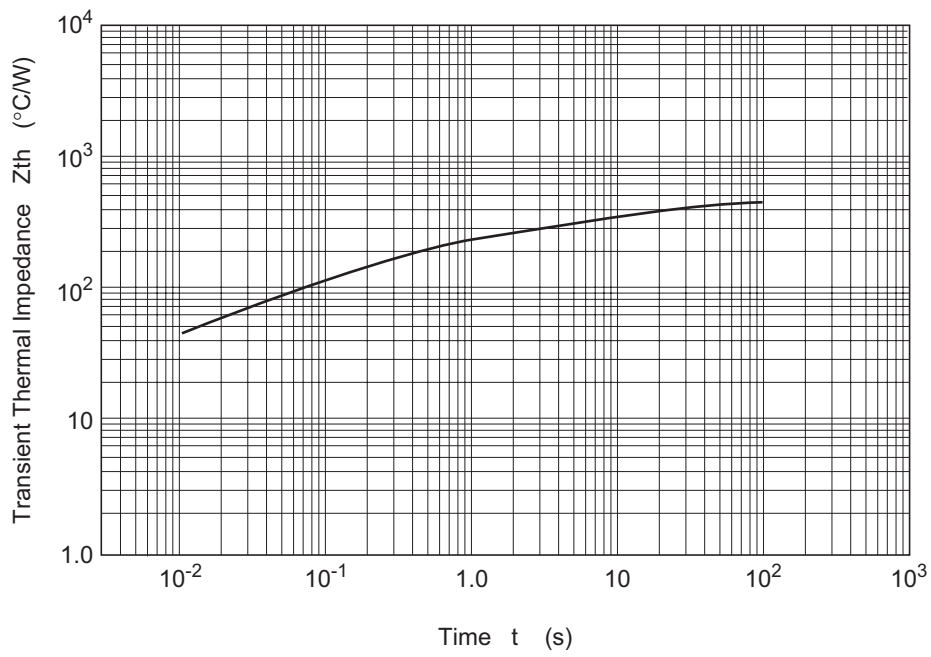
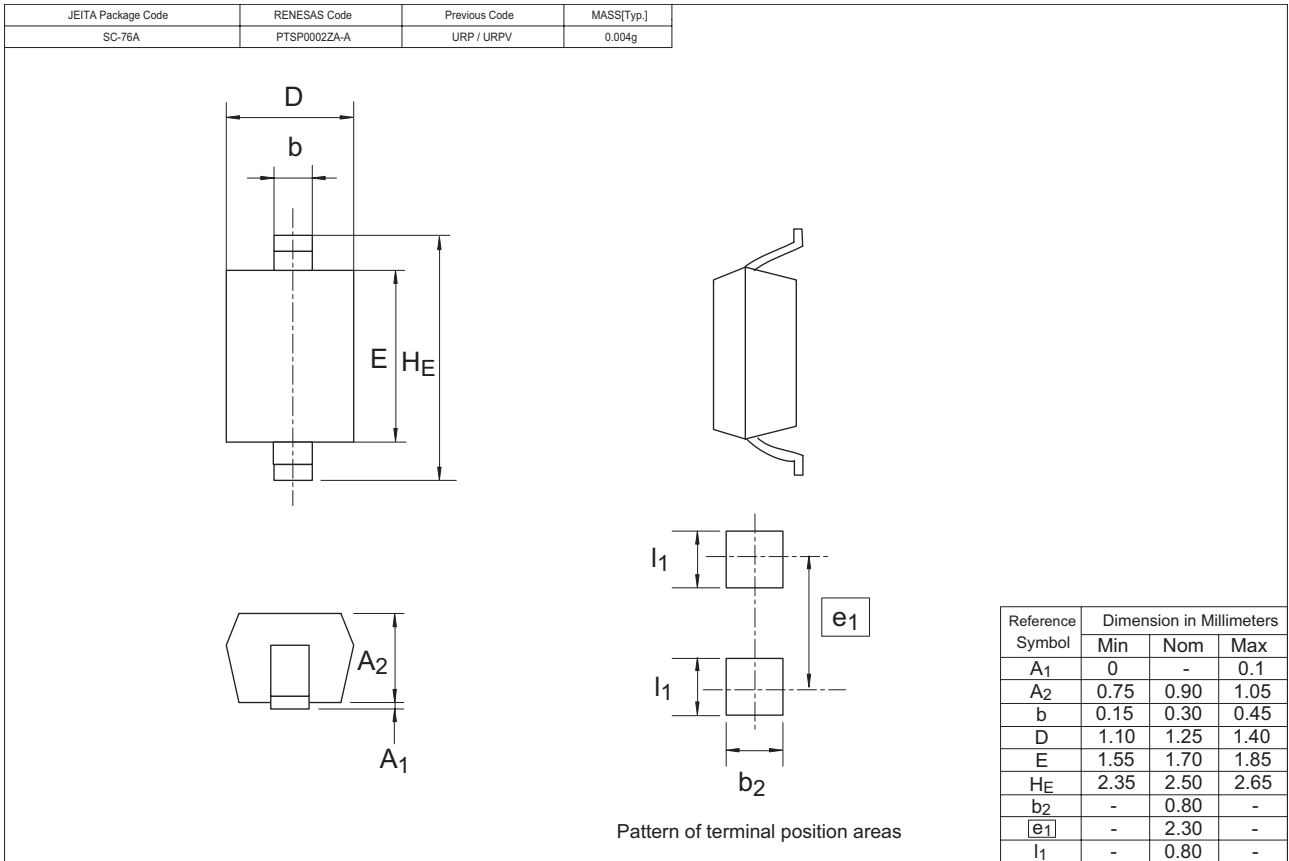


Fig.4 Transient Thermal Impedance

Package Dimensions



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