

DZ2J140×0L

Silicon epitaxial planar type

For constant voltage / For surge absorption circuit

■ Features

- Excellent rising characteristics of zener current I_Z
- Low zener operating resistance R_Z
- Halogen-free / RoHS compliant
 (EU RoHS / UL-94 V-0 / MSL:Level 1 compliant)

■ Marking Symbol: TJ or TU

■ Packaging

Embossed type (Thermo-compression sealing) : 3 000 pcs / reel (standard)

■ Absolute Maximum Ratings Ta = 25 °C

| Parameter | Symbol | Rating | Unit |
|---------------------------------------|------------------|-------------|------|
| Repetitive peak forward current | IFRM | 200 | mA |
| Total power dissipation ^{*1} | PT | 200 | mW |
| Electrostatic discharge ^{*2} | ESD | ±8 | kV |
| Junction temperature | T _J | 150 | °C |
| Operating ambient temperature | T _{opr} | -40 to +85 | °C |
| Storage temperature | T _{stg} | -55 to +150 | °C |

Note) *1 Mounted on glass epoxy print board (45 mm × 45 mm × 1 mm)

Solder in (Recommended land pattern)

*2 Test method : IEC61000_4_2

(C = 150 pF, R = 330 Ω, Contact discharge : 10 times)

■ Electrical Characteristics Ta = 25 °C ± 3 °C

| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|--|-----------------|-------------------------|-------|------|-------|-------|
| Forward voltage | V _F | I _F = 10 mA | | | 1.0 | V |
| Zener voltage ^{*1, *2} | V _Z | I _Z = 5 mA | 13.30 | | 14.70 | V |
| Zener operating resistance | R _Z | I _Z = 5 mA | | | 40 | Ω |
| Zener rise operating resistance | R _{ZK} | I _Z = 0.5 mA | | | 80 | Ω |
| Reverse current | I _R | V _R = 10 V | | | 0.05 | μA |
| Temperature coefficient of zener voltage ^{*3} | SZ | I _Z = 5 mA | | 11.6 | | mV/°C |

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 Measuring methods for Diodes.

2. Absolute frequency of input and output is 5 MHz.

3. *1 The temperature must be controlled 25 °C for V_Z measurement.

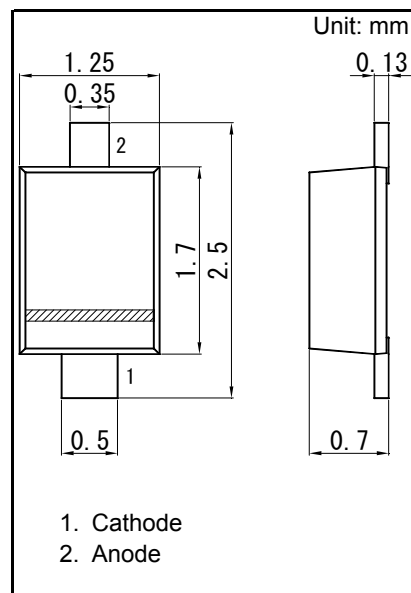
V_Z value measured at other temperature must be adjusted to V_Z (25 °C).

*2 V_Z guaranteed 20 ms after current flow

*3 T_J = 25 °C to 150 °C

Rank classification

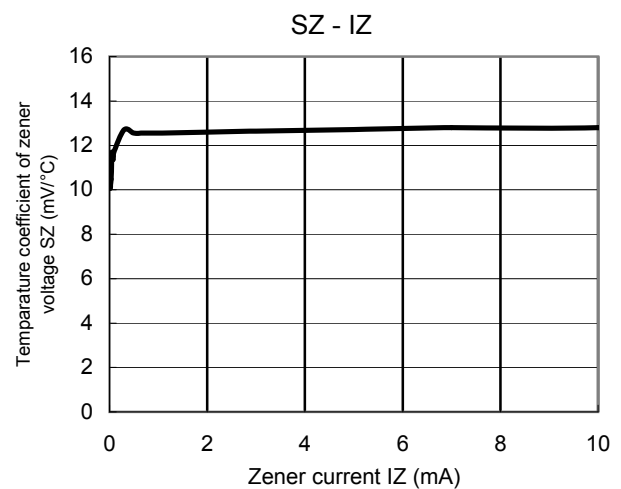
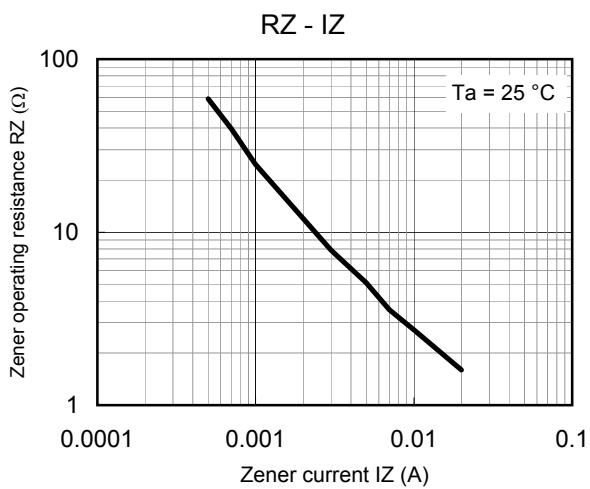
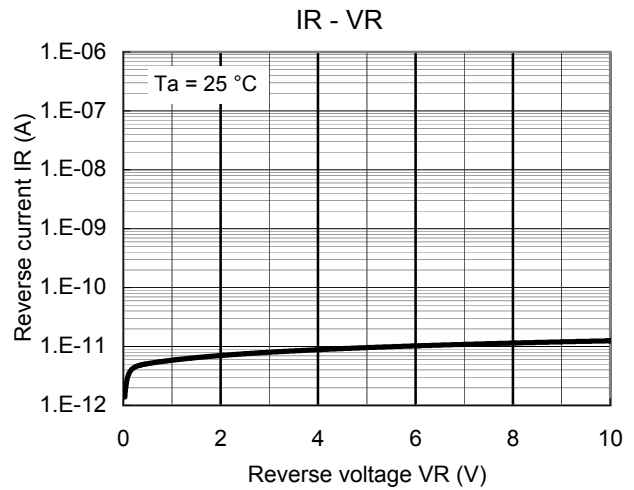
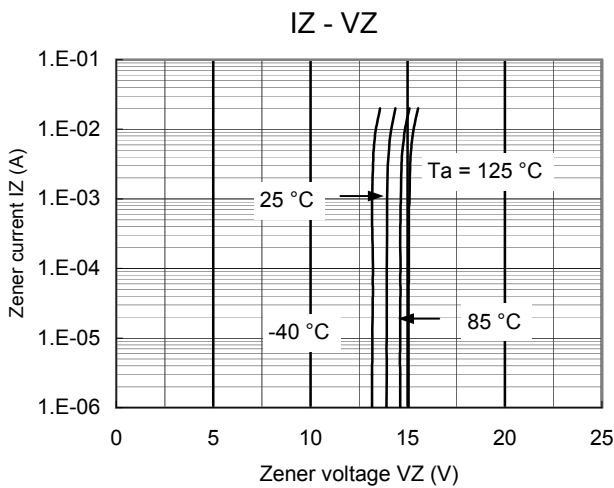
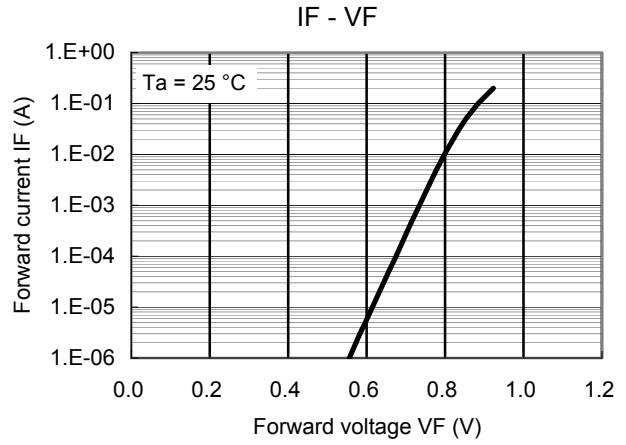
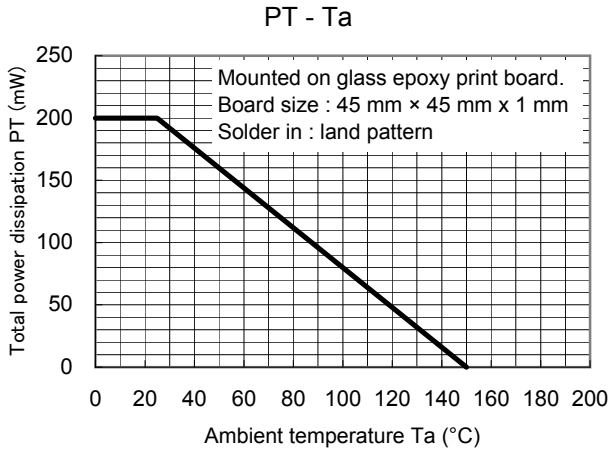
| Code | M | 0 |
|----------------|----------------|----------------|
| Rank | M | No-rank |
| V _Z | 13.65 to 14.35 | 13.30 to 14.70 |
| Marking symbol | TU | TJ |



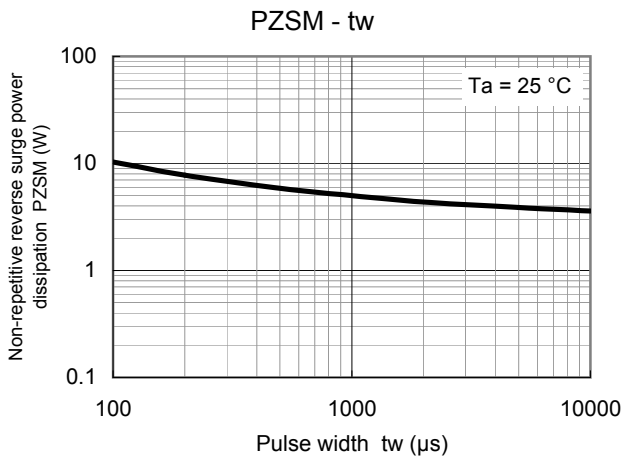
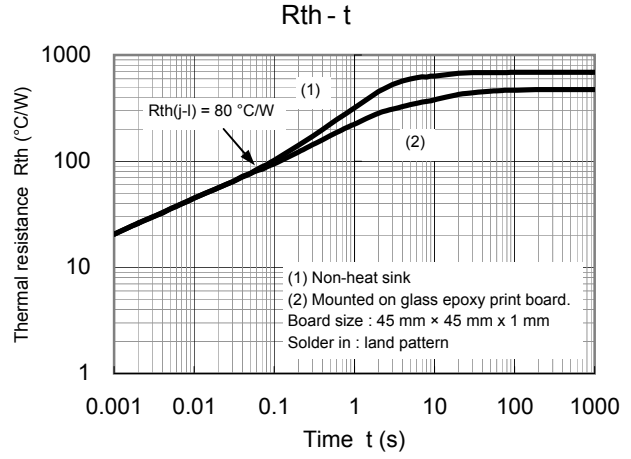
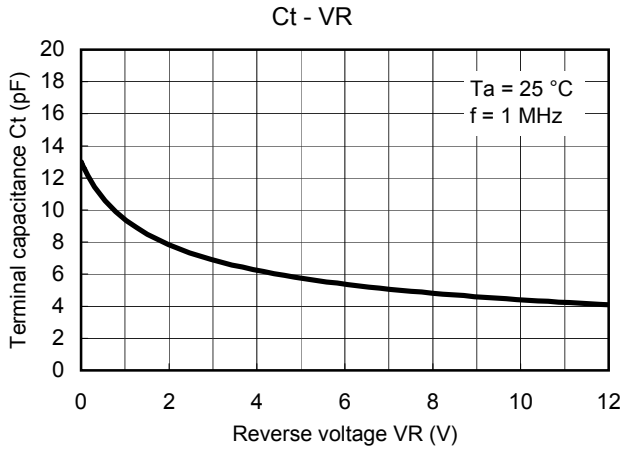
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|-----------|-------------|
| Panasonic | SMini2-F5-B |
| JEITA | SC-90A |
| Code | — |



Technical Data (reference)

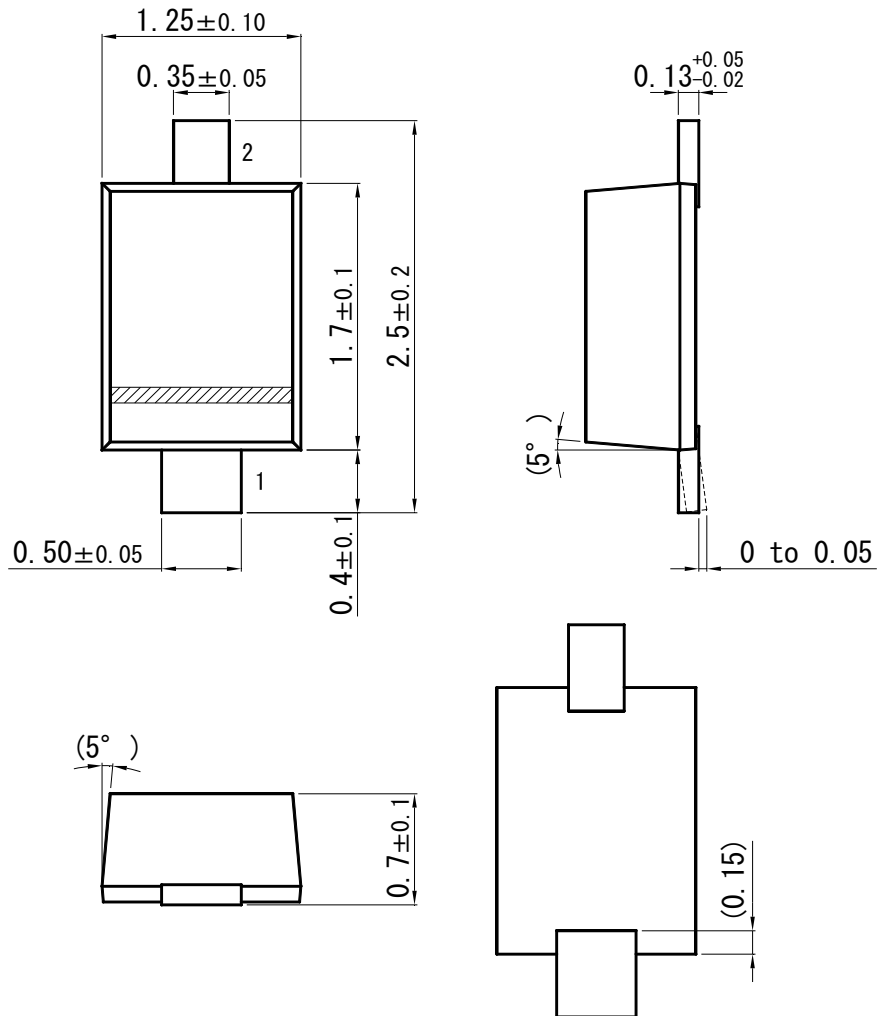


Technical Data (reference)



SMini2-F5-B

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



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