

# DZ2J200×0L

## Silicon epitaxial planar type

For constant voltage / For surge absorption circuit

### ■ Features

- Excellent rising characteristics of zener current I<sub>Z</sub>
- Low zener operating resistance R<sub>Z</sub>
- Halogen-free / RoHS compliant  
(EU RoHS / UL-94 V-0 / MSL:Level 1 compliant)

### ■ Marking Symbol: ZJ or ZU

### ■ 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 <sup>*1</sup> | PT               | 200         | mW   |
| Electrostatic discharge <sup>*2</sup> | ESD              | ±8          | kV   |
| Junction temperature                  | T <sub>J</sub>   | 150         | °C   |
| Operating ambient temperature         | T <sub>opr</sub> | -40 to +85  | °C   |
| Storage temperature                   | T <sub>stg</sub> | -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 <sub>F</sub>  | I <sub>F</sub> = 10 mA  |       |      | 1.0   | V     |
| Zener voltage <sup>*1, *2</sup>                        | V <sub>Z</sub>  | I <sub>Z</sub> = 5 mA   | 19.00 |      | 21.00 | V     |
| Zener operating resistance                             | R <sub>Z</sub>  | I <sub>Z</sub> = 5 mA   |       |      | 80    | Ω     |
| Zener rise operating resistance                        | R <sub>ZK</sub> | I <sub>Z</sub> = 0.5 mA |       |      | 100   | Ω     |
| Reverse current  | I <sub>R</sub>  | V <sub>R</sub> = 15 V   |       |      | 0.05  | μA    |
| Temperature coefficient of zener voltage <sup>*3</sup> | SZ              | I <sub>Z</sub> = 5 mA   |       | 18.4 |       | 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<sub>Z</sub> measurement.

V<sub>Z</sub> value measured at other temperature must be adjusted to V<sub>Z</sub> (25 °C).

\*2 V<sub>Z</sub> guaranteed 20 ms after current flow

\*3 T<sub>J</sub> = 25 °C to 150 °C

### Rank classification

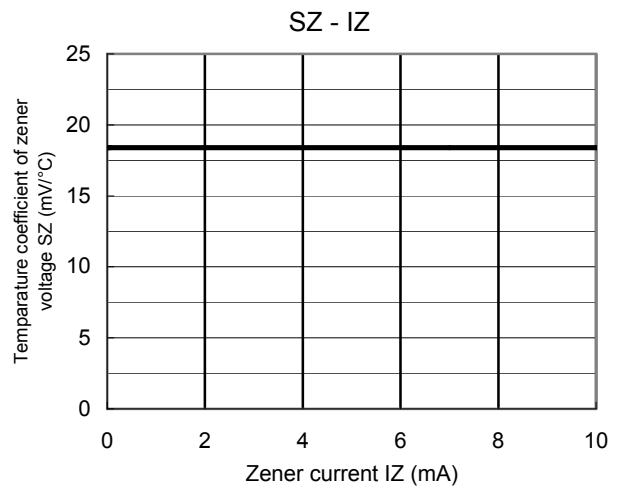
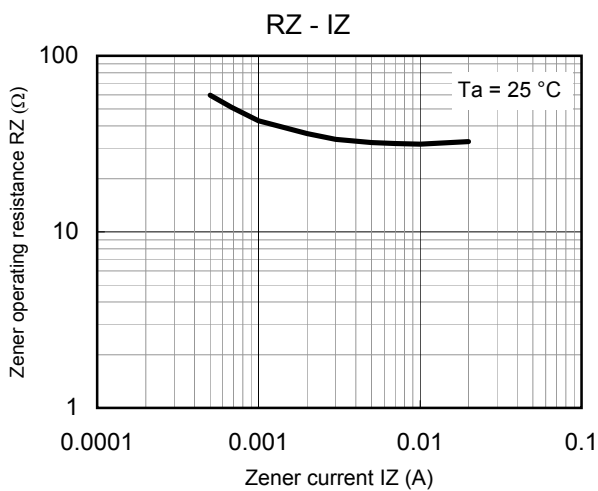
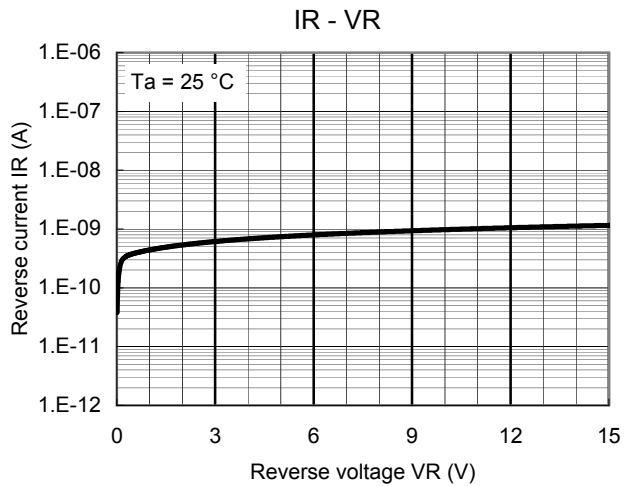
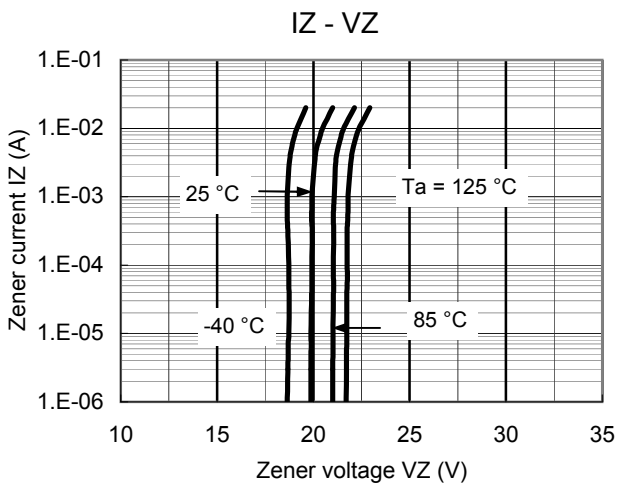
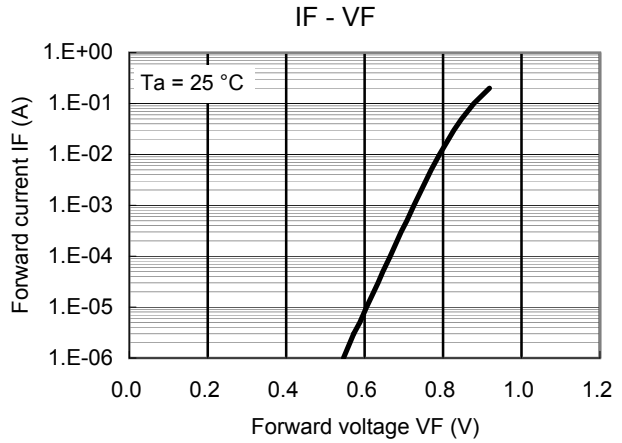
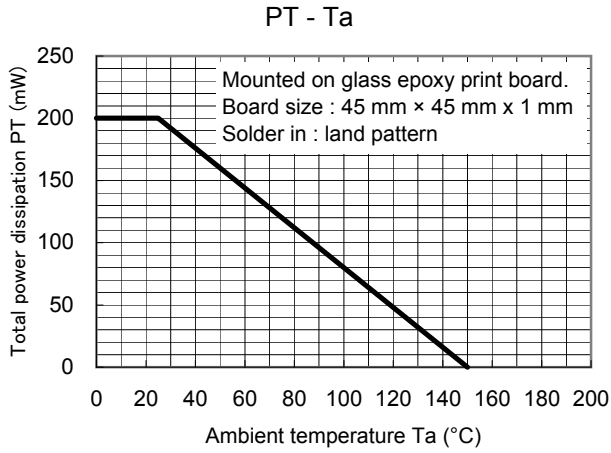
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|----------------|----------------|----------------|
| Rank           | M              | No-rank        |
| V <sub>Z</sub> | 19.50 to 20.50 | 19.00 to 21.00 |
| Marking symbol | ZU             | ZJ             |



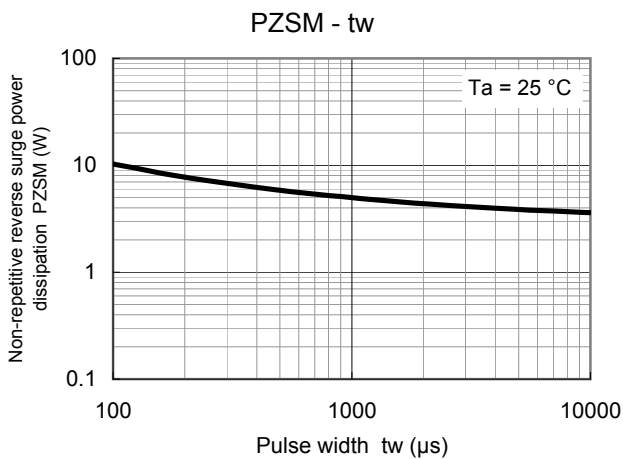
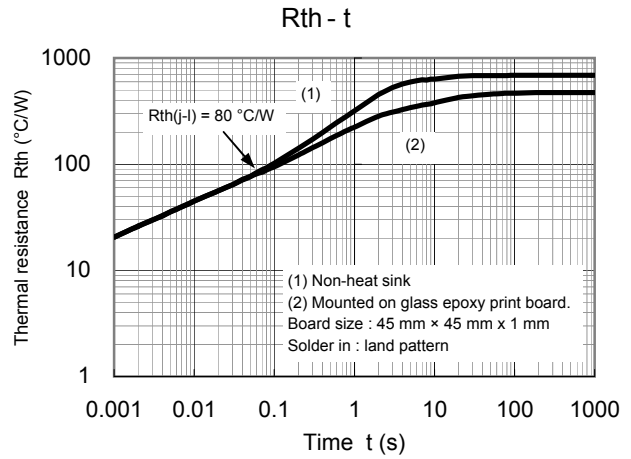
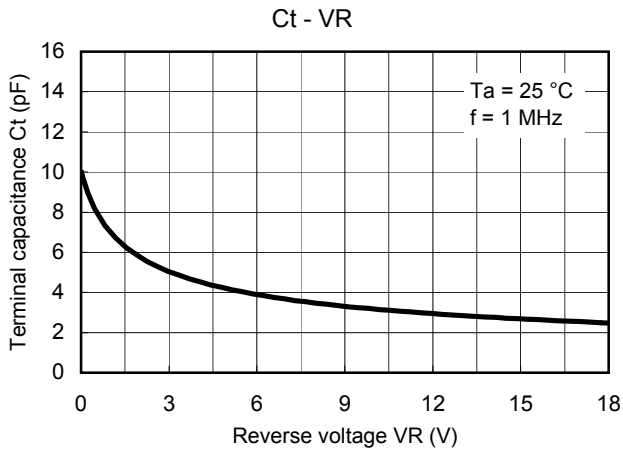
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|-----------|-------------|
| Panasonic | SMini2-F5-B |
| JEITA     | SC-90A      |
| Code      | —           |



Technical Data ( reference )

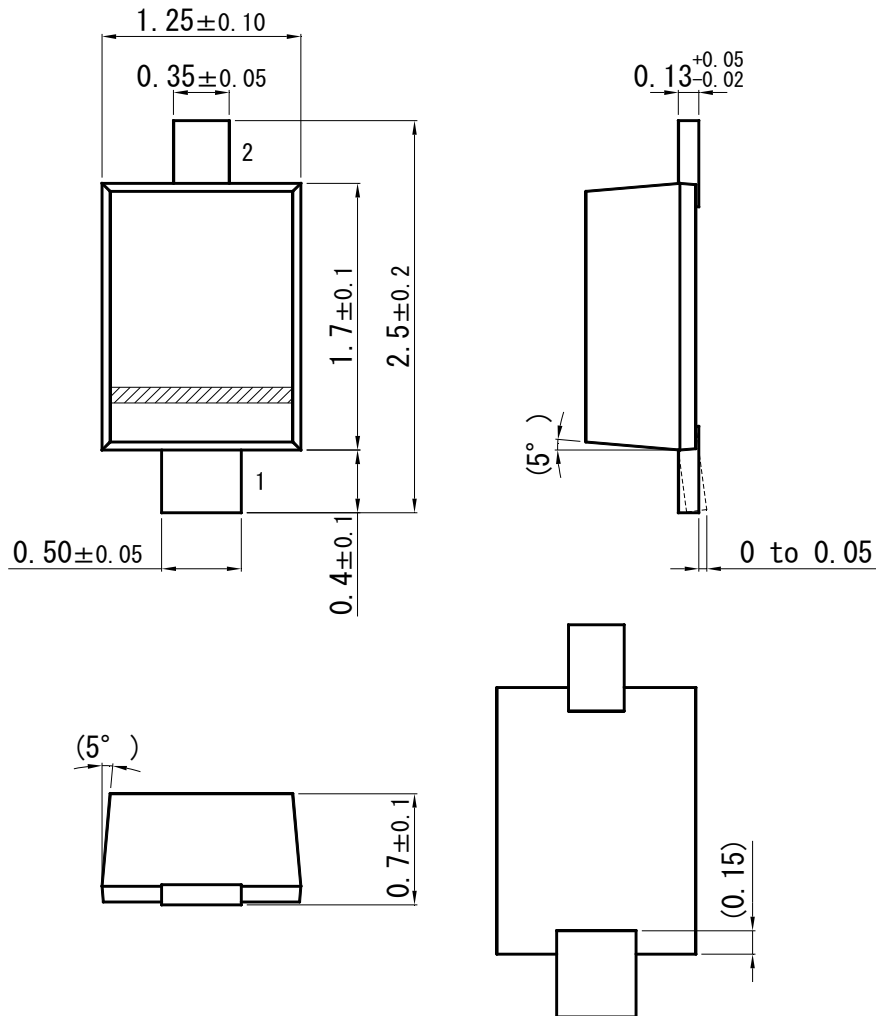


Technical Data ( reference )



SMini2-F5-B

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



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