

**Panasonic**

DZ2J047×0L

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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: AJ or AU

#### ■ 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              | ±15         | 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  | 4.47 |     | 4.94 | 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> = 1 mA  |      |     | 800  | Ω     |
| Reverse current                                        | I <sub>R</sub>  | V <sub>R</sub> = 1 V   |      |     | 2.0  | μA    |
| Temperature coefficient of zener voltage <sup>*3</sup> | SZ              | I <sub>Z</sub> = 5 mA  |      | 0.5 |      | 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.

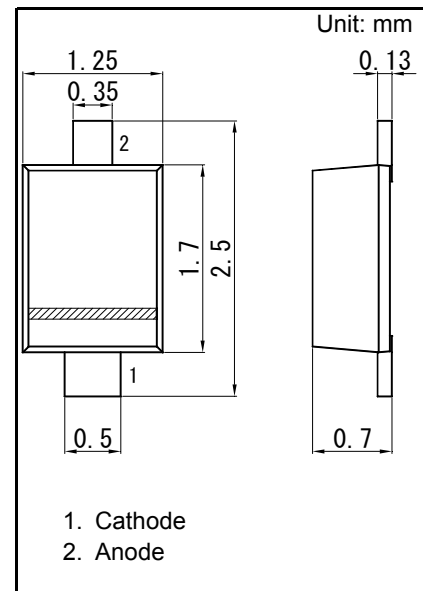
V<sub>Z</sub> value measured at other temperature must be adjusted to V<sub>Z</sub> (25 °C).

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

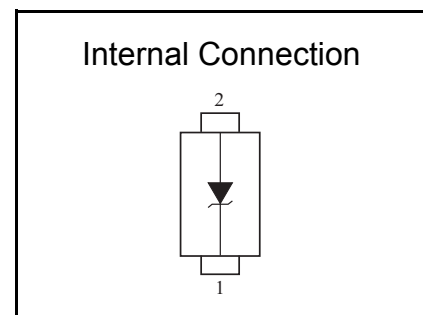
\*3 T<sub>j</sub> = 25 °C to 150 °C

#### Rank classification

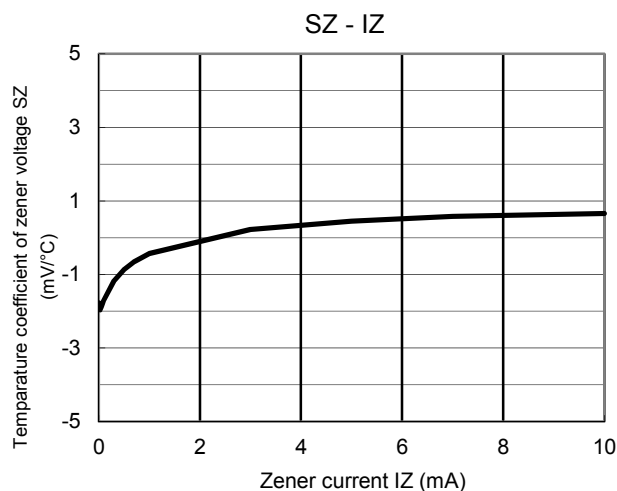
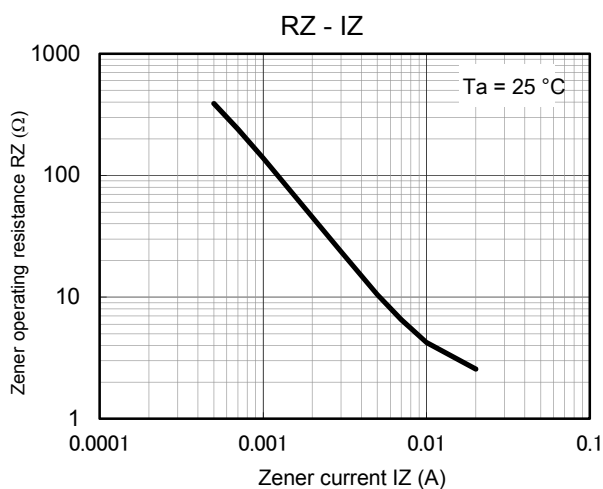
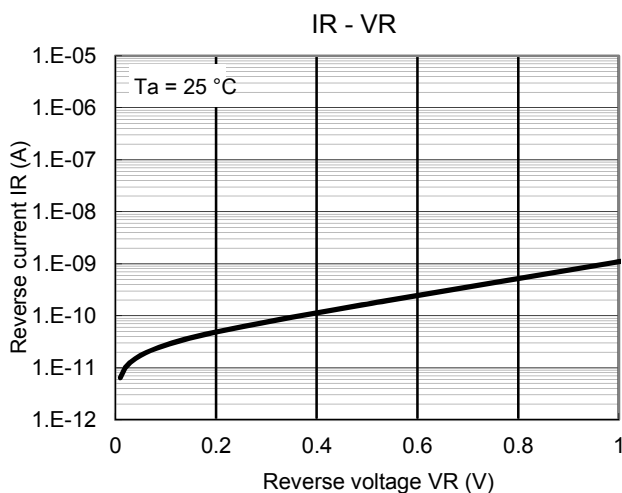
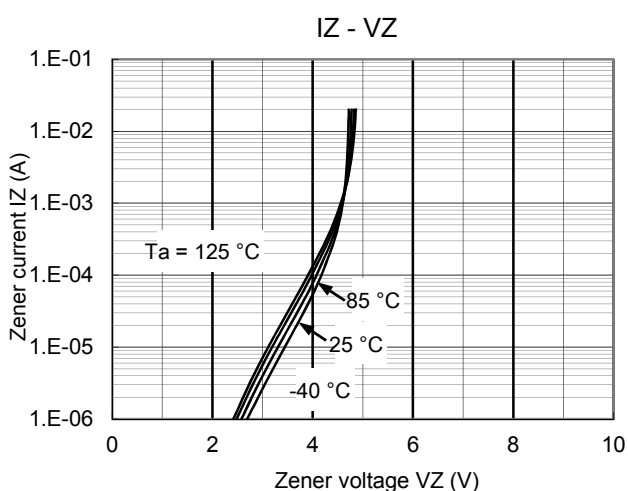
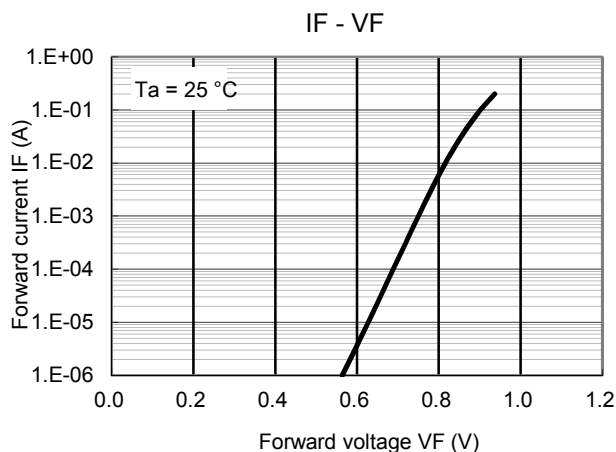
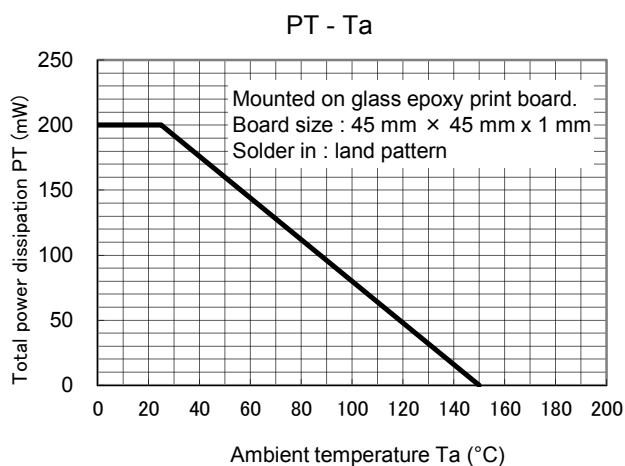
|                |              |              |
|----------------|--------------|--------------|
| Code           | M            | 0            |
| Rank           | M            | No-rank      |
| V <sub>Z</sub> | 4.59 to 4.83 | 4.47 to 4.94 |
| Marking symbol | AU           | AJ           |



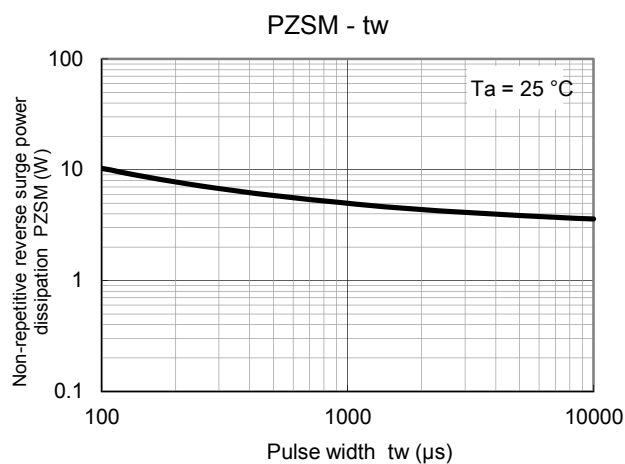
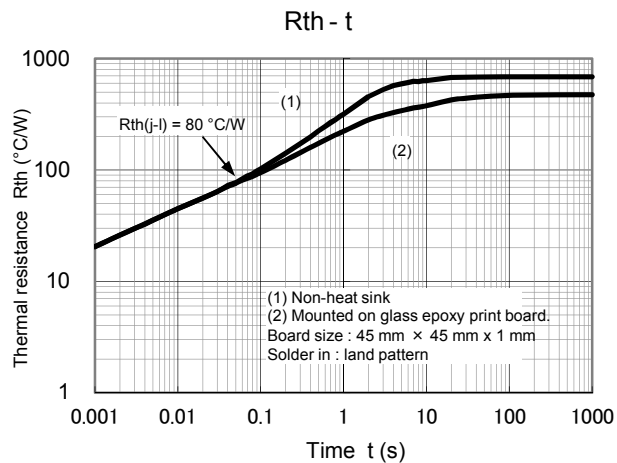
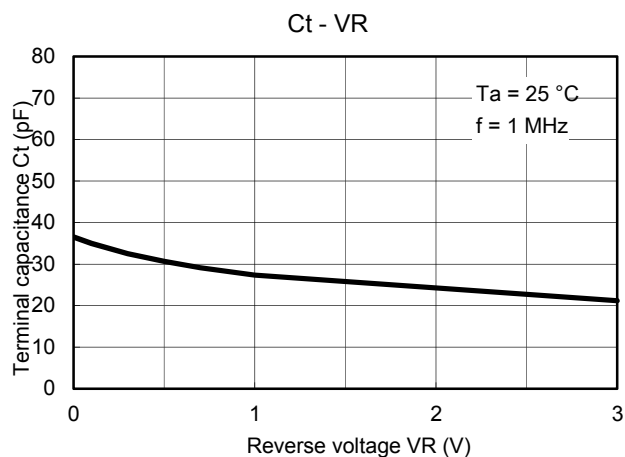
|           |             |
|-----------|-------------|
| Panasonic | SMini2-F5-B |
| JEITA     | SC-90A      |
| Code      | —           |



Technical Data ( reference )



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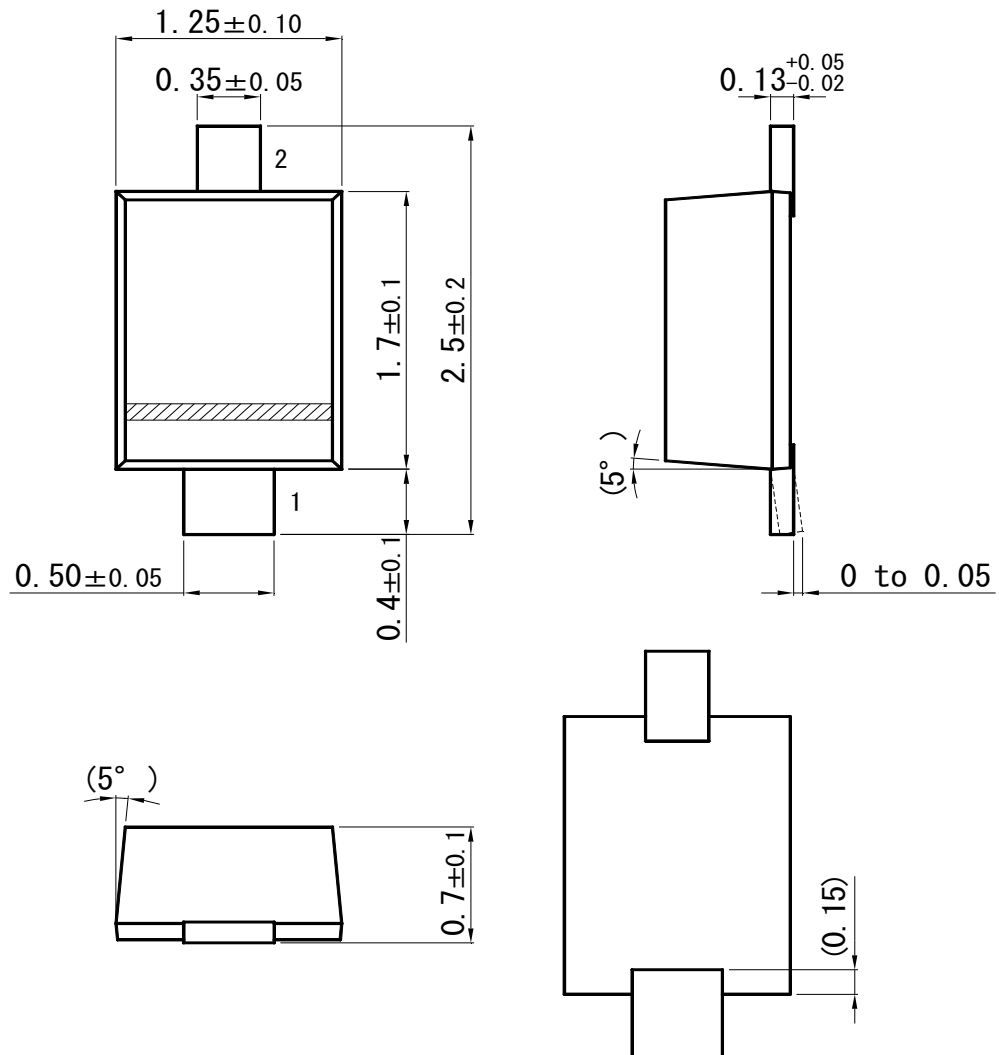


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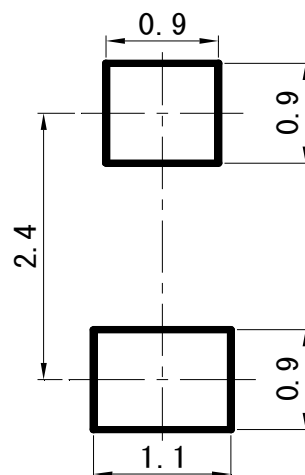
Zener Diode  
DZ2J047×0L

SMini2-F5-B

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



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