

## DZ2412000L

### Silicon epitaxial planar type

For constant voltage / For surge absorption circuit

Capability of withstanding a high surge type

DZ2W120 in Power type package

#### ■ 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: RJ

#### ■ Packaging

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

#### ■ Absolute Maximum Ratings $T_a = 25\text{ }^{\circ}\text{C}$

| Parameter                                        | Symbol | Rating      | Unit |
|--------------------------------------------------|--------|-------------|------|
| Repetitive peak forward current                  | IFRM   | 500         | mA   |
| Forward current                                  | IF     | 400         | mA   |
| Total power dissipation <sup>*1</sup>            | PT     | 2           | W    |
| Non-repetitive reverse power surge <sup>*2</sup> | PZSM   | 100         | W    |
| Electrostatic discharge <sup>*3</sup>            | ESD    | ±30         | kV   |
| Junction temperature                             | Tj     | 150         | °C   |
| Operating ambient temperature                    | Topr   | -40 to +85  | °C   |
| Storage temperature                              | Tstg   | -55 to +150 | °C   |

Note: <sup>\*1</sup> Mounted on ceramics print circuit board.

Board size: 50 mm × 50 mm

Board thickness: 0.8 mm

Soldering size: 2 mm × 2 mm

<sup>\*2</sup>  $t = 0.1\text{ms}$

<sup>\*3</sup> Test method: IEC61000\_4\_2(C = 150 pF, R = 330  $\Omega$ , Contact discharge: 10 times)

#### ■ Electrical Characteristics $T_a = 25\text{ }^{\circ}\text{C} \pm 3\text{ }^{\circ}\text{C}$

| Parameter                                              | Symbol | Conditions  | Min   | Typ   | Max   | Unit          |
|--------------------------------------------------------|--------|-------------|-------|-------|-------|---------------|
| Forward voltage                                        | VF     | IF = 200 mA |       |       | 1.2   | V             |
| Zener voltage <sup>*1, *2</sup>                        | VZ     | IZ = 10 mA  | 11.40 | 12.00 | 12.60 | V             |
| Zener operating resistance                             | RZ     | IZ = 10 mA  |       |       | 30    | $\Omega$      |
| Reverse current                                        | IR     | VR = 8.0 V  |       |       | 10    | $\mu\text{A}$ |
| Temperature coefficient of zener voltage <sup>*3</sup> | SZ     | IZ = 10 mA  |       | 8.8   |       | mV/°C         |

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

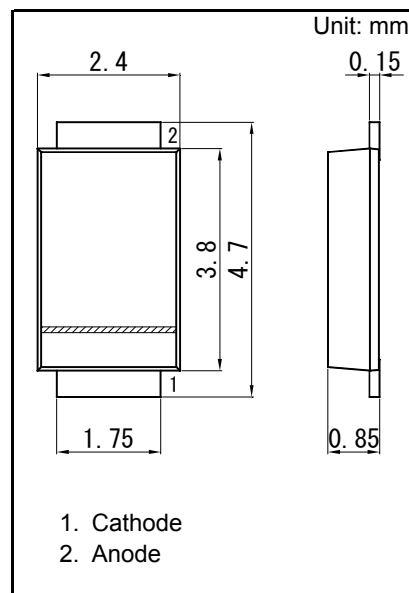
2. Absolute frequency of input and output is 5 MHz.

3. <sup>\*1</sup> The temperature must be controlled 25°C for VZ measurement.

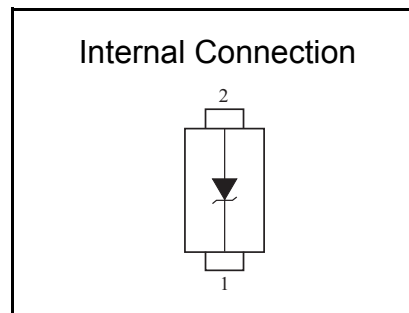
VZ value measured at other temperature must be adjusted to VZ (25°C)

<sup>\*2</sup> VZ guaranteed 20 ms after current flow.

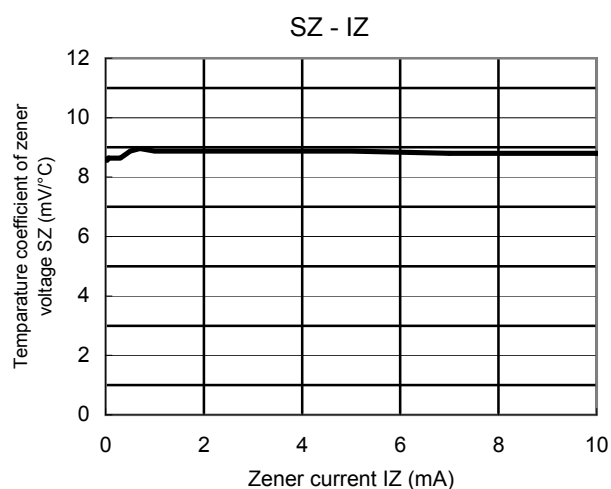
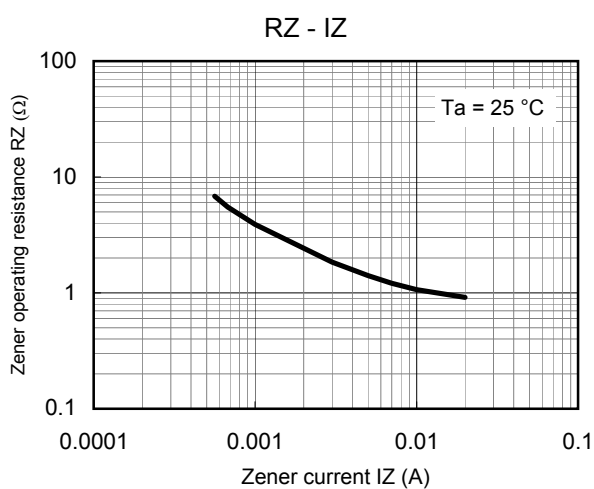
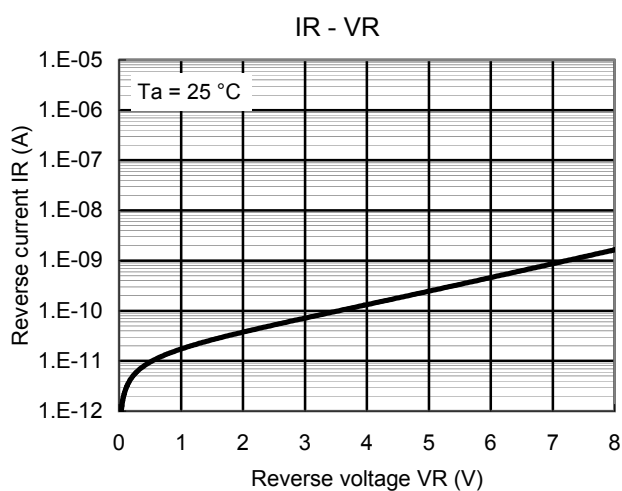
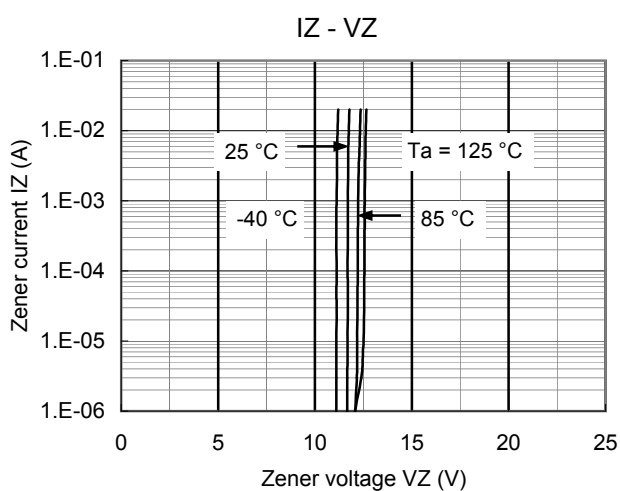
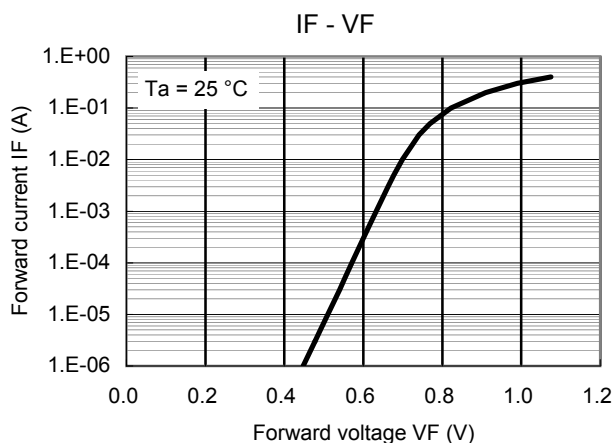
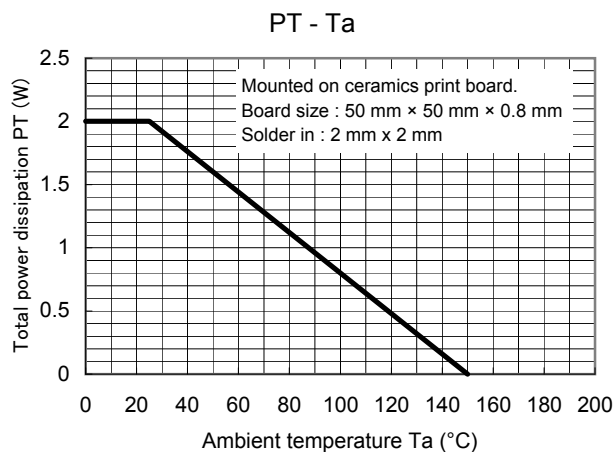
<sup>\*3</sup> Tj = 25°C to 150°C



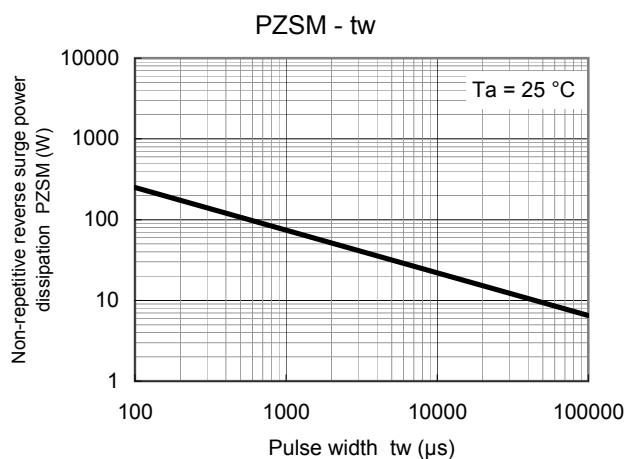
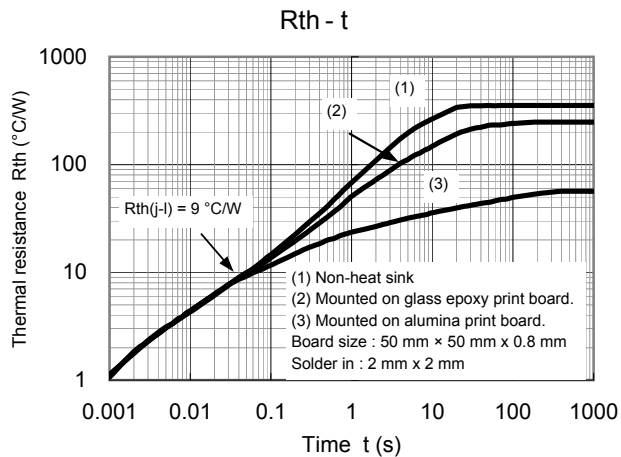
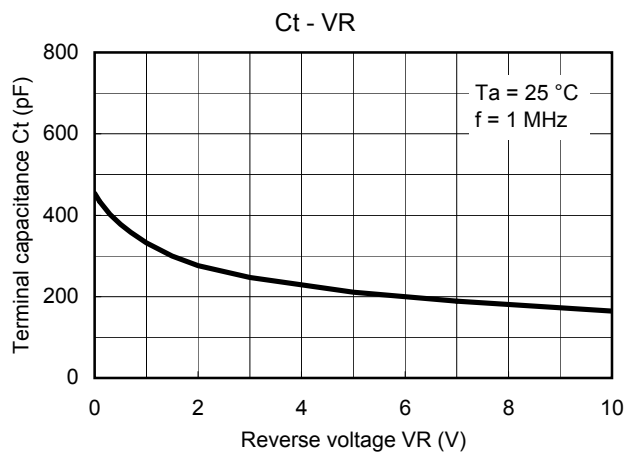
|           |              |
|-----------|--------------|
| Panasonic | TMiniP2-F2-B |
| JEITA     | SC-110A      |
| Code      | —            |



Technical Data ( reference )



Technical Data ( reference )



TMiniP2-F2-B

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



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