



## DZ3J056D0L

### Silicon epitaxial planar type

For surge absorption circuit

DZ3X056D in SMini3 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: 0W

#### ■ Packaging

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

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

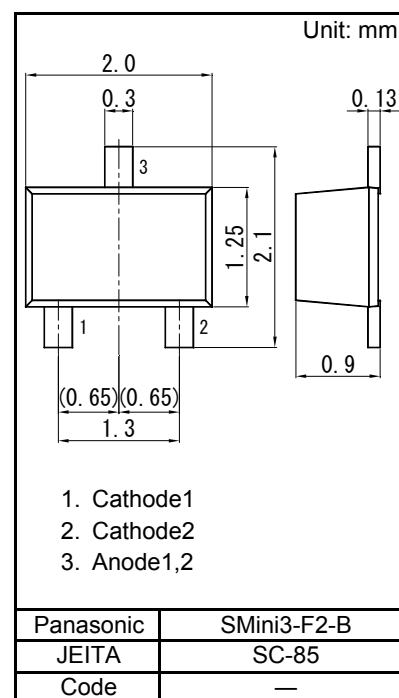
| Parameter                             | Symbol    | Rating      | Unit               |
|---------------------------------------|-----------|-------------|--------------------|
| Total power dissipation <sup>*1</sup> | PT        | 150         | mW                 |
| Electrostatic discharge <sup>*2</sup> | ESD       | $\pm 10$    | kV                 |
| Junction temperature                  | $T_j$     | 150         | $^{\circ}\text{C}$ |
| Operating ambient temperature         | $T_{opr}$ | -40 to +85  | $^{\circ}\text{C}$ |
| Storage temperature                   | $T_{stg}$ | -55 to +150 | $^{\circ}\text{C}$ |

Note) \*1: Mounted on glass epoxy print board. ( 45 mm x 45 mm x 1 mm)

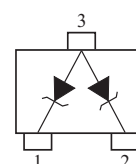
(2 Diode total)

Solder in ( 0.9 mm x 0.8 mm)

\*2: Test method: IEC61000\_4\_2(C = 150 pF, R = 330  $\Omega$ , Contact discharge: 10 times)



#### Internal Connection



#### ■ 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     | $I_F = 10\text{ mA}$  |      |     | 1.0  | V                      |
| Zener voltage <sup>*1, *2</sup>                        | VZ     | $I_Z = 5\text{ mA}$   | 5.32 |     | 5.88 | V                      |
| Zener operating resistance                             | RZ     | $I_Z = 5\text{ mA}$   |      |     | 40   | $\Omega$               |
| Zener rise operating resistance                        | RZK    | $I_Z = 0.5\text{ mA}$ |      |     | 200  | $\Omega$               |
| Reverse current                                        | IR     | $V_R = 2.5\text{ V}$  |      |     | 0.5  | $\mu\text{A}$          |
| Temperature coefficient of zener voltage <sup>*3</sup> | SZ     | $I_Z = 5\text{ mA}$   |      | 2.0 |      | mV/ $^{\circ}\text{C}$ |

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

2. \*1: The temperature must be controlled  $25\text{ }^{\circ}\text{C}$  for VZ measurement.

VZ value measured at other temperature must be adjusted to VZ ( $25\text{ }^{\circ}\text{C}$ )

\*2: VZ guaranteed 20 ms after current flow.

\*3:  $T_j = 25\text{ }^{\circ}\text{C}$  to  $150\text{ }^{\circ}\text{C}$