

## DZ2S039×0L

### Silicon epitaxial planar type

For constant voltage / For surge absorption circuit  
DZ2J039 in SSMini2 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: 7J or 7U

#### ■ Packaging

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

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

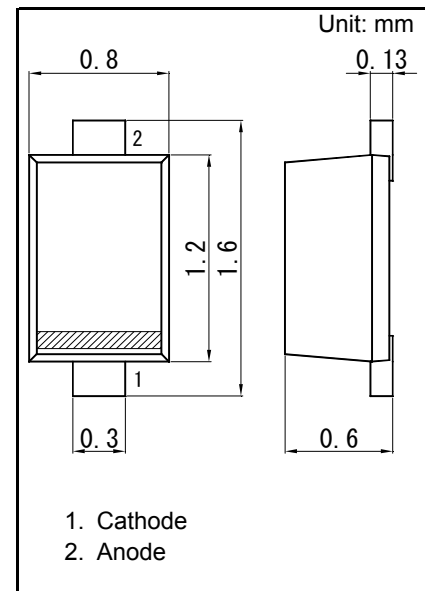
| Parameter                             | Symbol | Rating      | Unit |
|---------------------------------------|--------|-------------|------|
| Repetitive peak forward current       | IFRM   | 200         | mA   |
| Total power dissipation <sup>*1</sup> | PT     | 150         | mW   |
| Electrostatic discharge <sup>*2</sup> | ESD    | ±15         | kV   |
| Junction temperature                  | Tj     | 150         | °C   |
| Operating ambient temperature         | Topr   | -40 to +85  | °C   |
| Storage temperature                   | Tstg   | -55 to +150 | °C   |

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

Solder in ( 0.8 mm × 0.6 mm )

\*2 Test method : IEC61000\_4\_2

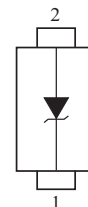
( C = 150 pF, R = 330 Ω, Contact discharge : 10 times )



1. Cathode  
2. Anode

|           |              |
|-----------|--------------|
| Panasonic | SSMini2-F5-B |
| JEITA     | SC-79        |
| Code      | SOD-523      |

#### 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     | IF = 10 mA |      |      | 1.0  | V     |
| Zener voltage <sup>*1, *2</sup>                        | VZ     | IZ = 5 mA  | 3.71 |      | 4.10 | V     |
| Zener operating resistance                             | RZ     | IZ = 5 mA  |      |      | 130  | Ω     |
| Reverse current                                        | IR     | VR = 1 V   |      |      | 10   | μA    |
| Temperature coefficient of zener voltage <sup>*3</sup> | SZ     | IZ = 5 mA  |      | -1.3 |      | 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 VZ measurement.

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

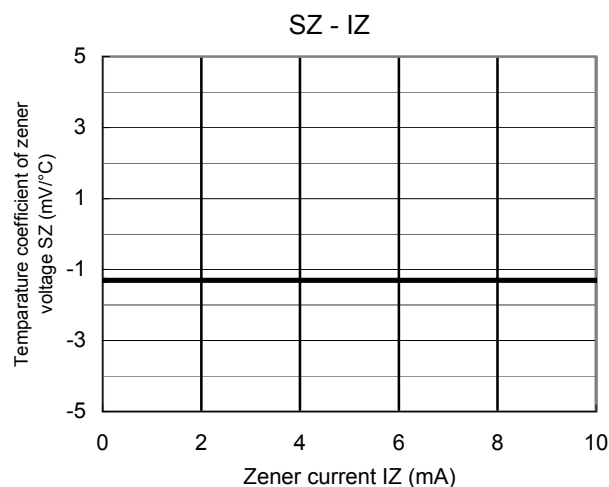
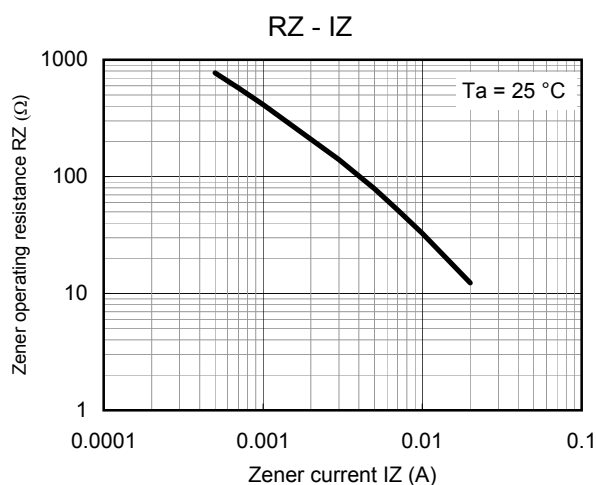
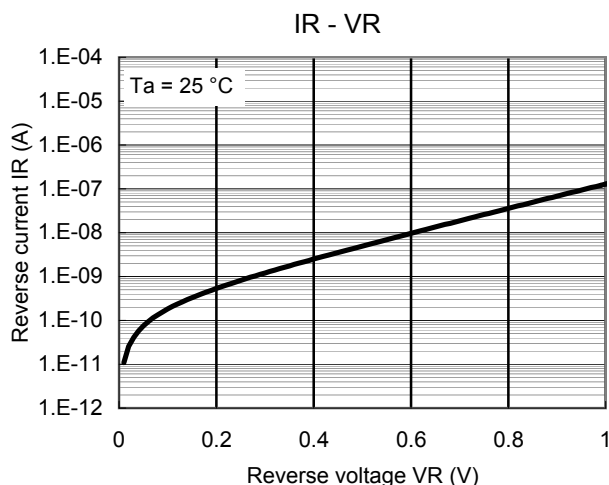
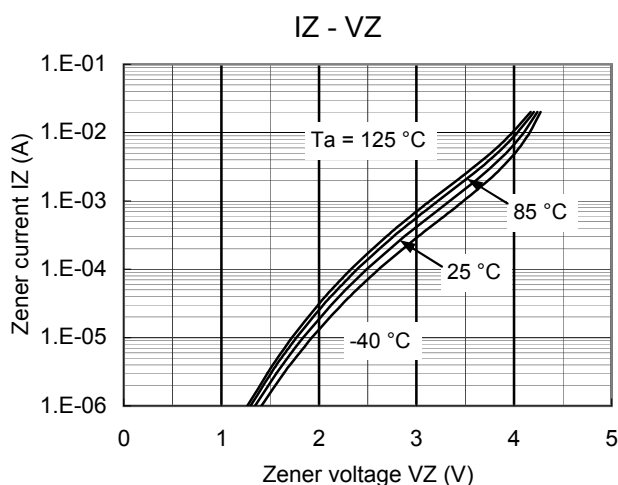
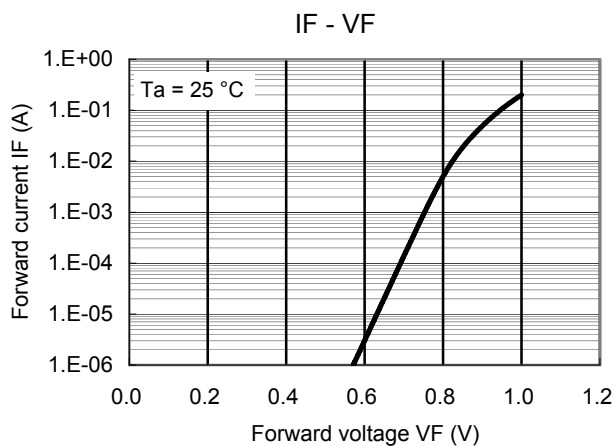
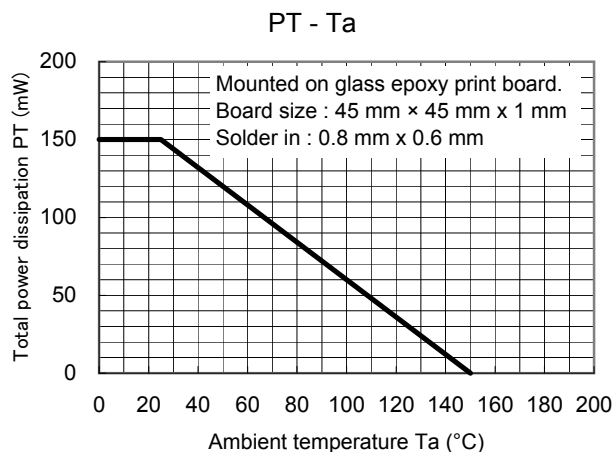
\*2 VZ guaranteed 20 ms after current flow

\*3 Tj = 25 °C to 150 °C

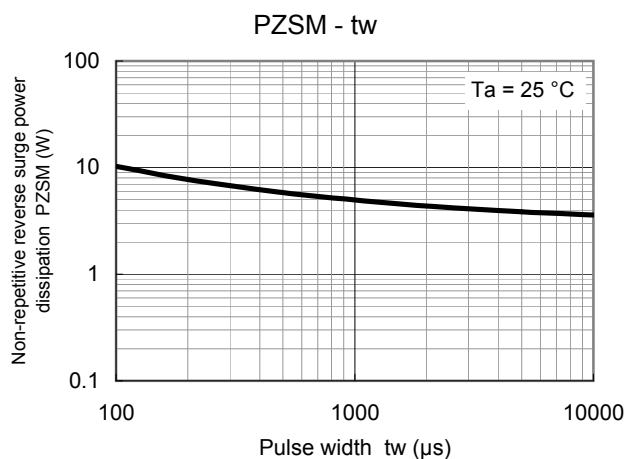
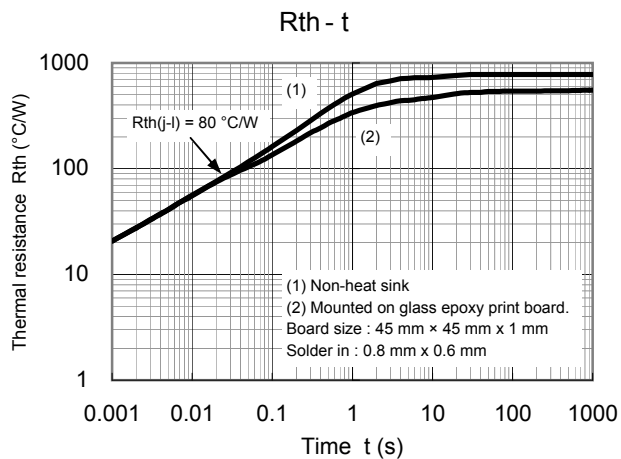
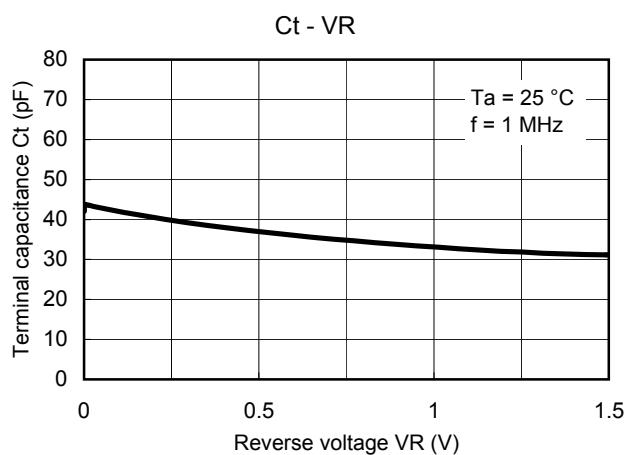
#### Rank classification

|                |              |              |
|----------------|--------------|--------------|
| Code           | M            | 0            |
| Rank           | M            | No-rank      |
| VZ             | 3.80 to 4.00 | 3.71 to 4.10 |
| Marking symbol | 7U           | 7J           |

Technical Data ( reference )



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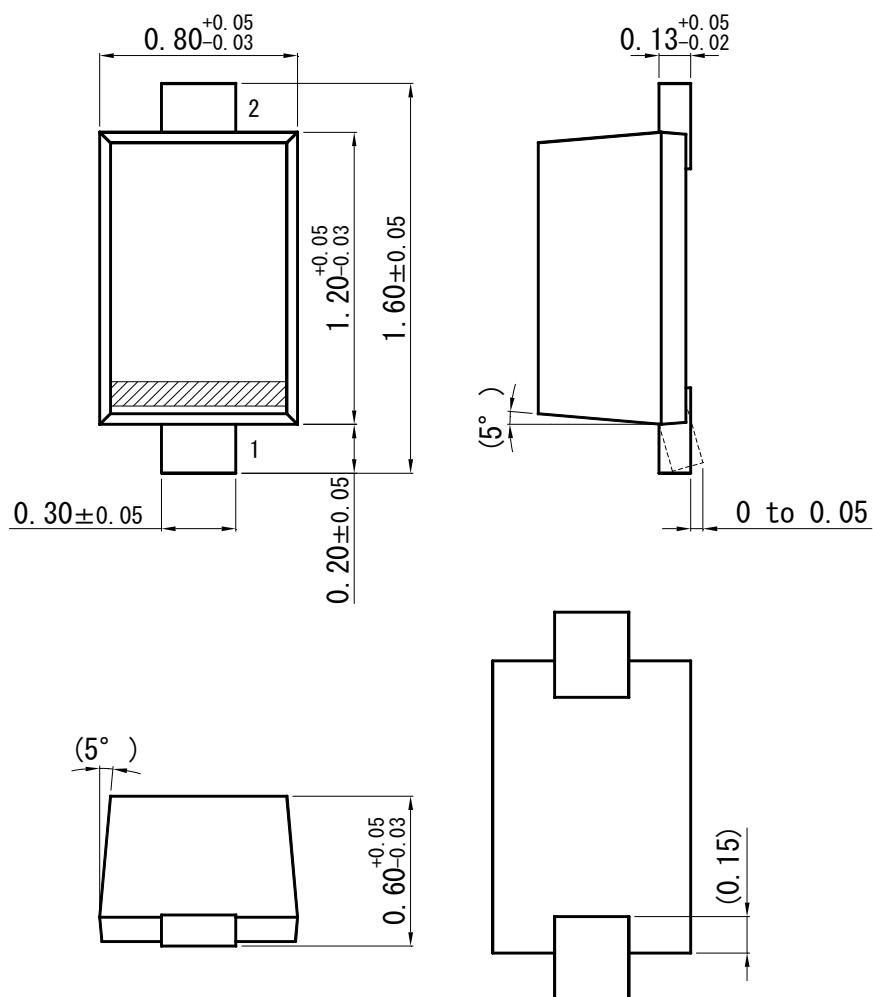


**Panasonic**

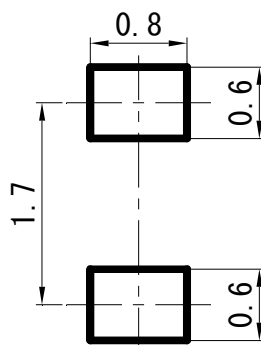
Zener Diode  
**DZ2S039×0L**

**SSMini2-F5-B**

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



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