Zener Diode

Panasonic DZ2S030×0L

# DZ2S030×0L

## Silicon epitaxial planar type

For constant voltage / For surge absorption circuit
DZ2J030 in SSMini2 type package

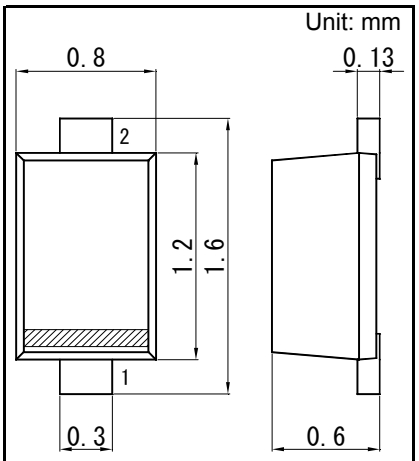
### ■ Features

- Excellent rising characteristics of zener current Iz
- Low zener operating resistance Rz
- Halogen-free / RoHS compliant
  (EU RoHS / UL-94 V-0 / MSL:Level 1 compliant)

### ■ Marking Symbol: 3J or 3U

### ■ Packaging

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




1. Cathode
2. Anode

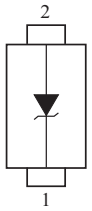
| Panasonic | SSMini2-F5-B |
|---|---|
| JEITA | SC-79 |
| Code | SOD-523 |

### ■ Absolute Maximum Ratings Ta = 25 °C

| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Repetitive peak forward current | IFRM | 200 | mA |
| Total power dissipation *1 | PT | 150 | mW |
| Electrostatic discharge *2 | 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 )

### Internal Connection




### ■ Electrical Characteristics Ta = 25 °C ± 3 °C

| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Forward voltage | VF | IF = 10 mA | | | 1.0 | V |
| Zener voltage *1, *2 | VZ | IZ = 5 mA | 2.85 | | 3.15 | V |
| Zener operating resistance | RZ | IZ = 5 mA | | | 120 | Ω |
| Reverse current | IR | VR = 1 V | | | 50 | μA |
| Temperature coefficient of zener voltage *3 | SZ | IZ = 5 mA | | -2.0 | | 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 mesurement.
VZ value measured at other temperature must be adjusted to VZ (25 °C).
*2 VZ guaranted 20 ms after current flow
*3 Tj = 25 °C to 150 °C

Rank classification

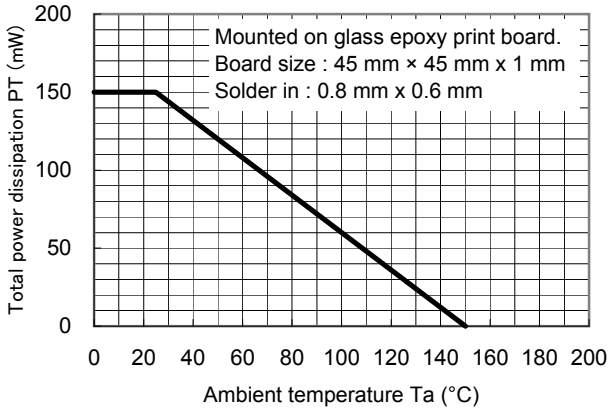
| Code | M | 0 |
|---|---|---|
| Rank | M | No-rank |
| VZ | 2.93 to 3.08 | 2.85 to 3.15 |
| Marking symbol | 3U | 3J |



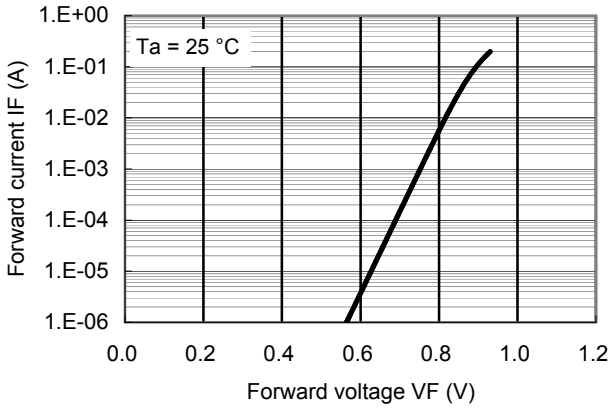
Established : 2009-11-09
Revised : 2013-07-16

## Technical Data ( reference )

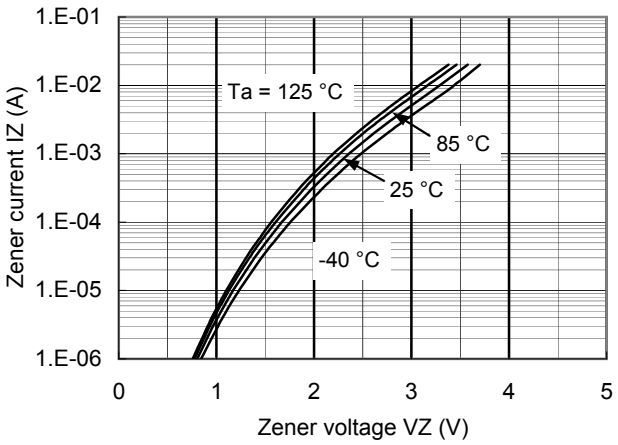
PT - Ta



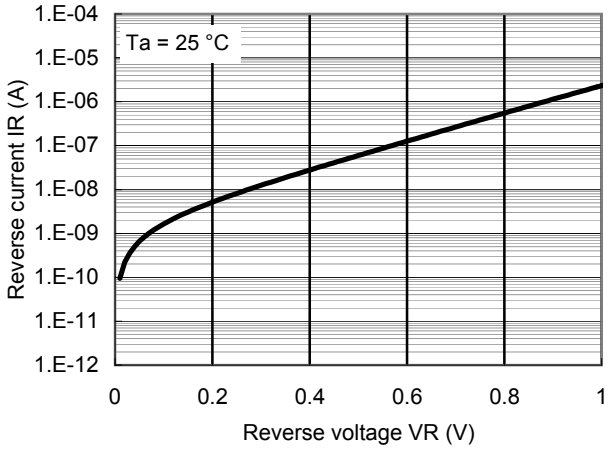

IF - VF



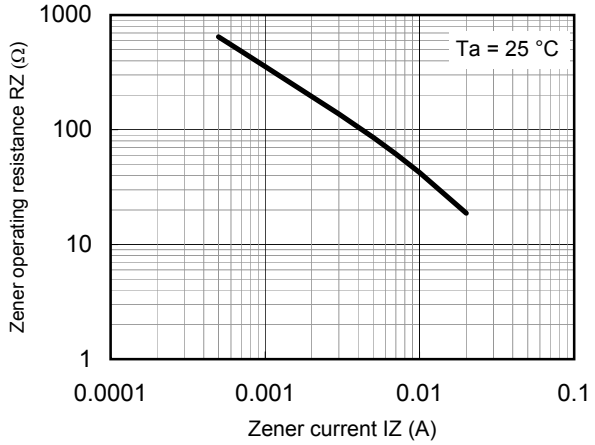

IZ - VZ



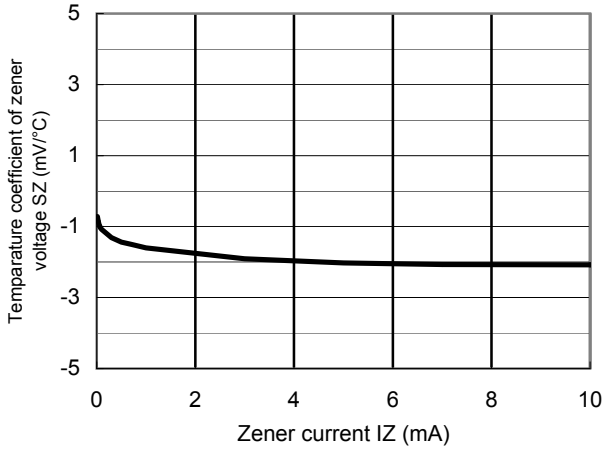

IR - VR




RZ - IZ




SZ - IZ



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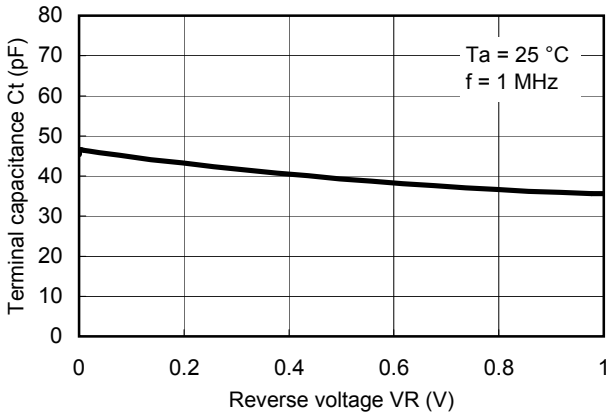
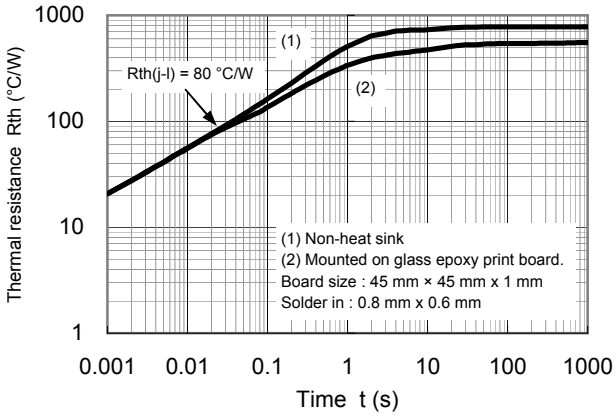
## Technical Data ( reference )

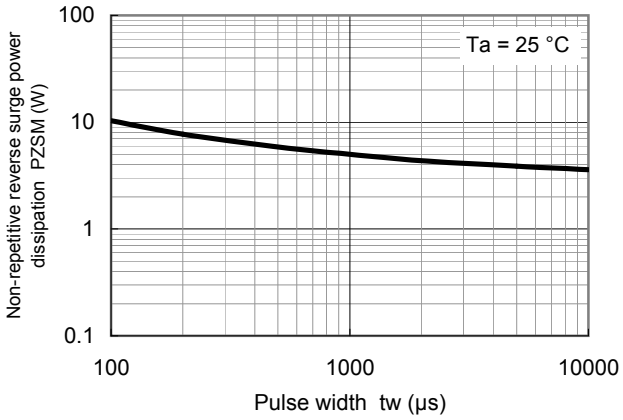
Ct - VR




Rth - t




PZSM - tw



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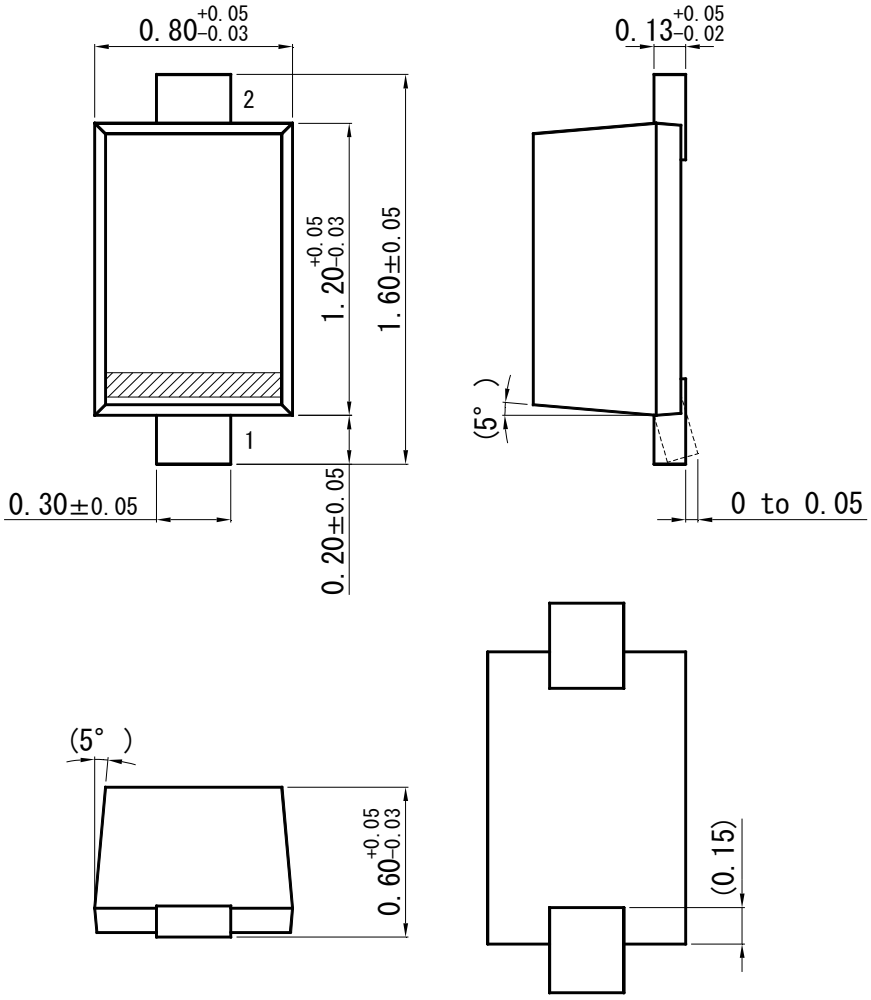
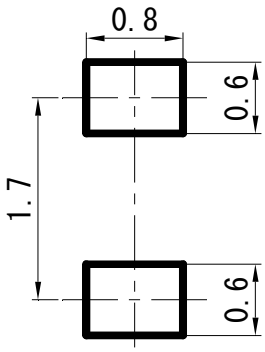
## SSMini2-F5-B

Unit: mm




■ Land Pattern (Reference) (Unit: mm)



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