

Zener Diode DE2S03000L

Unit: mm

0.13

DE2S03000L Silicon epitaxial planar type

For ESD protection

- Features
- High ESD

 Halogen-free / RoHS compliant (EU RoHS / UL-94 V-0 / MSL:Level 1 compliant)

■ Absolute Maximum Ratings Ta = 25 °C

■ Marking Symbol: 3C

Packaging

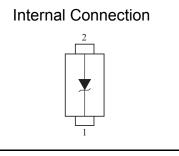
Embossed type (Thermo-compression sealing) 3 000 pcs / reel (standard)

0.8

| Parameter | Symbol | Rating | Unit |
|---------------------------------------|--------|-------------|------|
| Total power dissipation ^{*1} | PT | 150 | mW |
| Electrostatic discharge *2 | ESD | ±30 | 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 x 45 mm x 1 mm) Solder in (0.8 mm x 0.6 mm)

*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 | Тур | Max | Unit |
|---|--------|---------------------|------|------|------|-------|
| Zener voltage *1,*2 | VZ | IZ = 1 mA | 2.85 | | 3.15 | V |
| Reverse current | IR | VR = 1 V | | | 50.0 | μA |
| Terminal capacitance | Ct | VR = 0 V, f = 1 MHz | | 103 | | pF |
| Temperature coefficient of zener voltage *3 | SZ | IZ = 1 mA | | -2.2 | | mV/°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°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



200

150

100

50

0

0 20 40 60

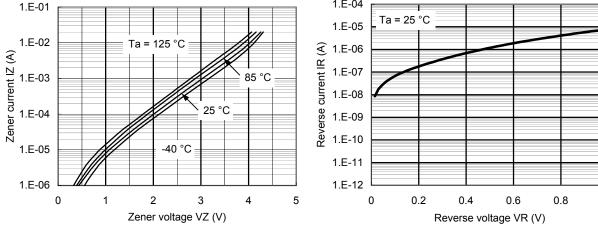
Total power dissipation PT (mW)

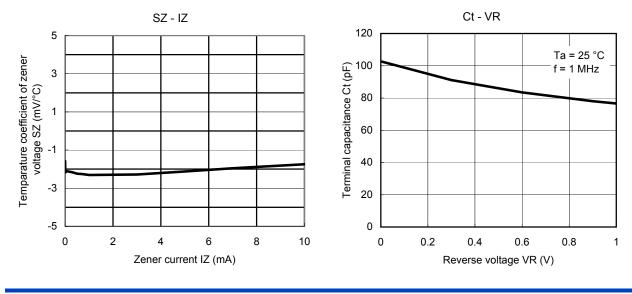
Zener Diode DE2S03000L

1.2

1

Technical Data (reference) PT - Ta IF - VF 1.E+00 Mounted on glass epoxy print board. Ta = 25 °C Board size : 45 mm × 45 mm x 1 mm 1.E-01 Forward current IF (A) Solder in : 0.8 mm x 0.6 mm 1.E-02 1.E-03 1.E-04 1.E-05 1.E-06 0.2 0.4 0.6 0.8 0.0 1.0 80 100 120 140 160 180 200 Forward voltage VF (V) Ambient temperature Ta (°C) IR - VR IZ - VZ 1.E-04 Ta = 25 °C 1.E-05





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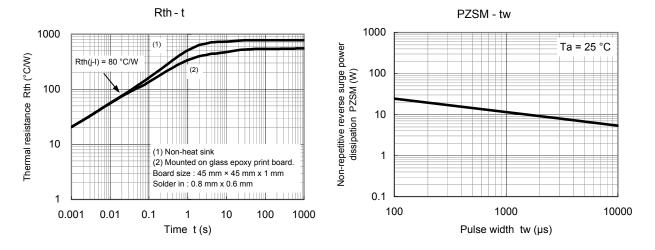
Established : 2012-10-24 Revised : 2013-09-25





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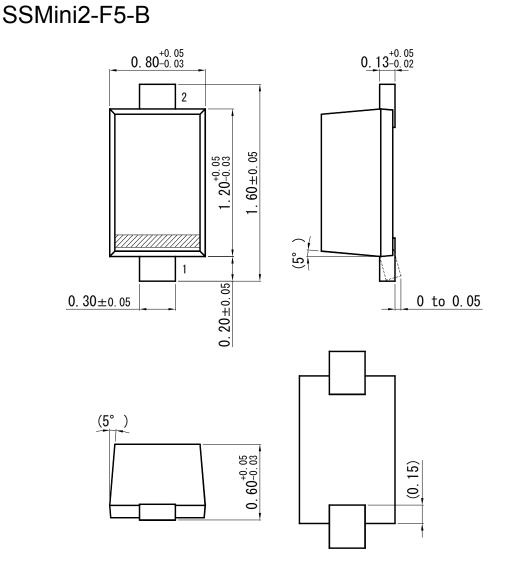
Technical Data (reference)



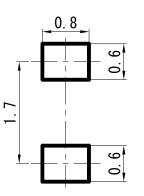


Zener Diode DE2S03000L

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



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