



DY2L5A0C0L1

Silicon epitaxial planar type

For bidirectional ESD protection and transient voltage suppressor

■ Features

- IEC 61000-4-2 (ESD) ± 15 kV (air and contact)
- Low clamping voltage
- Low capacitance
- Low leak current
- Halogen-free / RoHS compliant
(EU RoHS / UL-94 V-0 / MSL:Level 1 compliant)

■ Marking Symbol: F4

■ Packaging

Embossed type (Thermo-compression sealing) : 1 000 pcs / reel (standard)

■ Absolute Maximum Ratings Ta = 25 °C

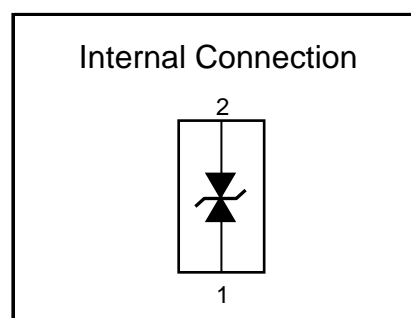
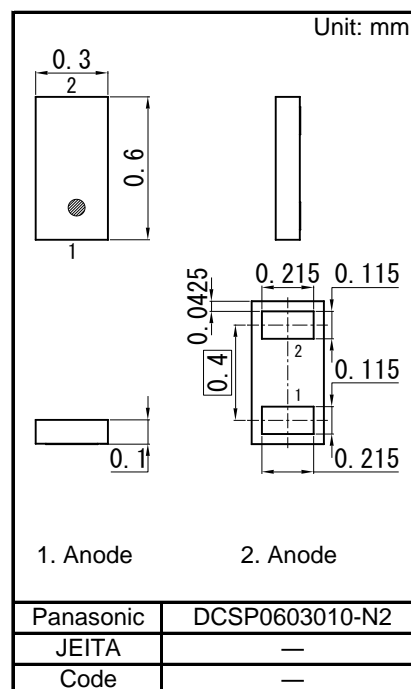
| Parameter | Symbol | Rating | Unit |
|---------------------------------------|--------|-------------|------|
| Total power dissipation ^{*1} | PT | 100 | mW |
| Electrostatic discharge ^{*2} | ESD | ± 15 | kV |
| Peak pulse power ^{*3} | Ppp | 20 | W |
| Peak pulse current ^{*3} | Ipp | 1.8 | A |
| Junction temperature | Tj | 150 | °C |
| Operating ambient temperature | Topr | -40 to +85 | °C |
| Storage temperature | Tstg | -55 to +150 | °C |

Note: *1 Mounted on FR4 board. (25.4 mm x 25.4 mm x 1.0 mm)

*2 Test method:IEC61000-4-2

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

*3 Test method:IEC61000-4-5 (tp = 8/20 μ s, Unrepeated)



■ Electrical Characteristics Ta = 25 °C \pm 3 °C

| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|---|--------|--------------------------------|-----|-----|-----|------|
| Reverse stand-off voltage | VRWM | — | | | 5.0 | V |
| Reverse breakdown voltage ^{*1, *2} | VBR | IR = 5 mA | 7.0 | 7.5 | 8.0 | V |
| Reverse current | IR | VR = 5 V | | | 50 | nA |
| Clamping voltage ^{*3} | Vc | Ipp = 1.8 A, tp = 8/20 μ s | | | 13 | V |
| Terminal capacitance | Ct | VR = 0 V, f = 1 MHz | | 6.0 | | pF |

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.

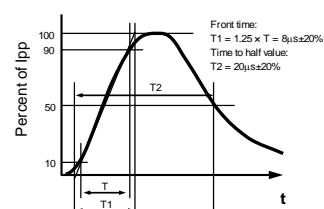
3. *1 The temperature must be controlled 25°C for VBR measurement.

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

*2 VBR guaranteed 20 ms after current flow.

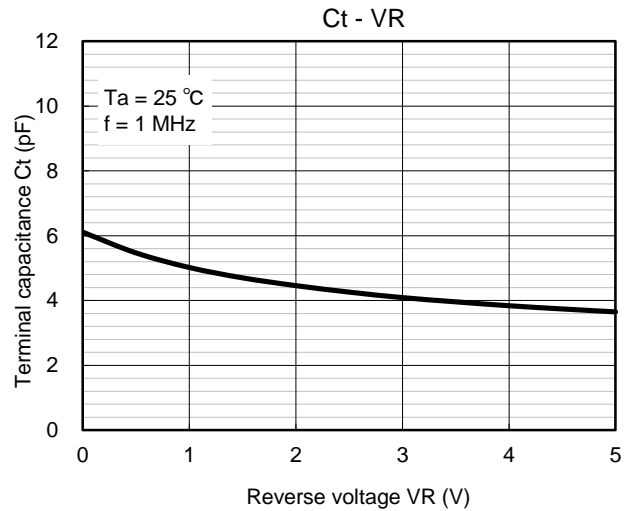
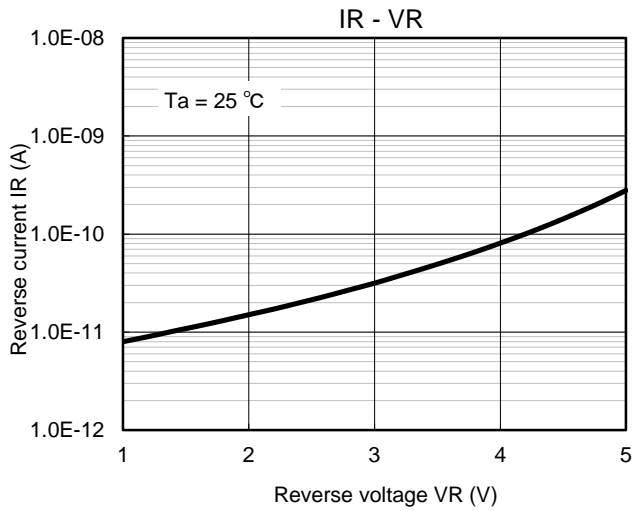
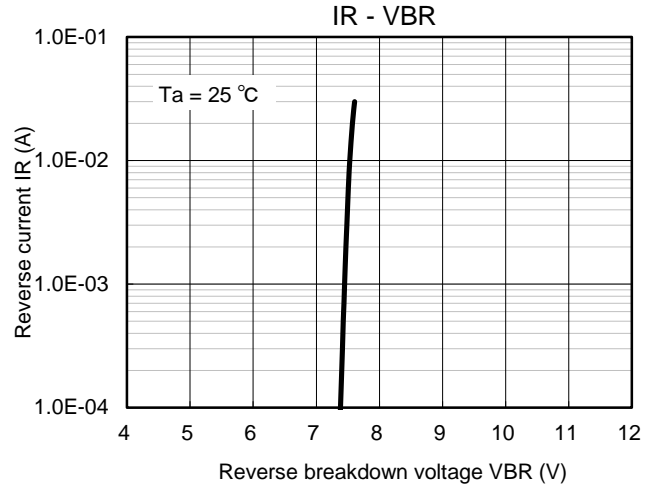
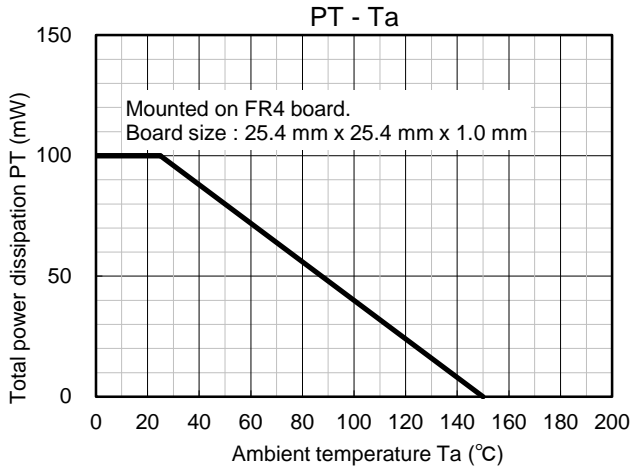
*3 8 μ s/20 μ s Pulse Waveform

8 μ s/20 μ s Pulse Waveform





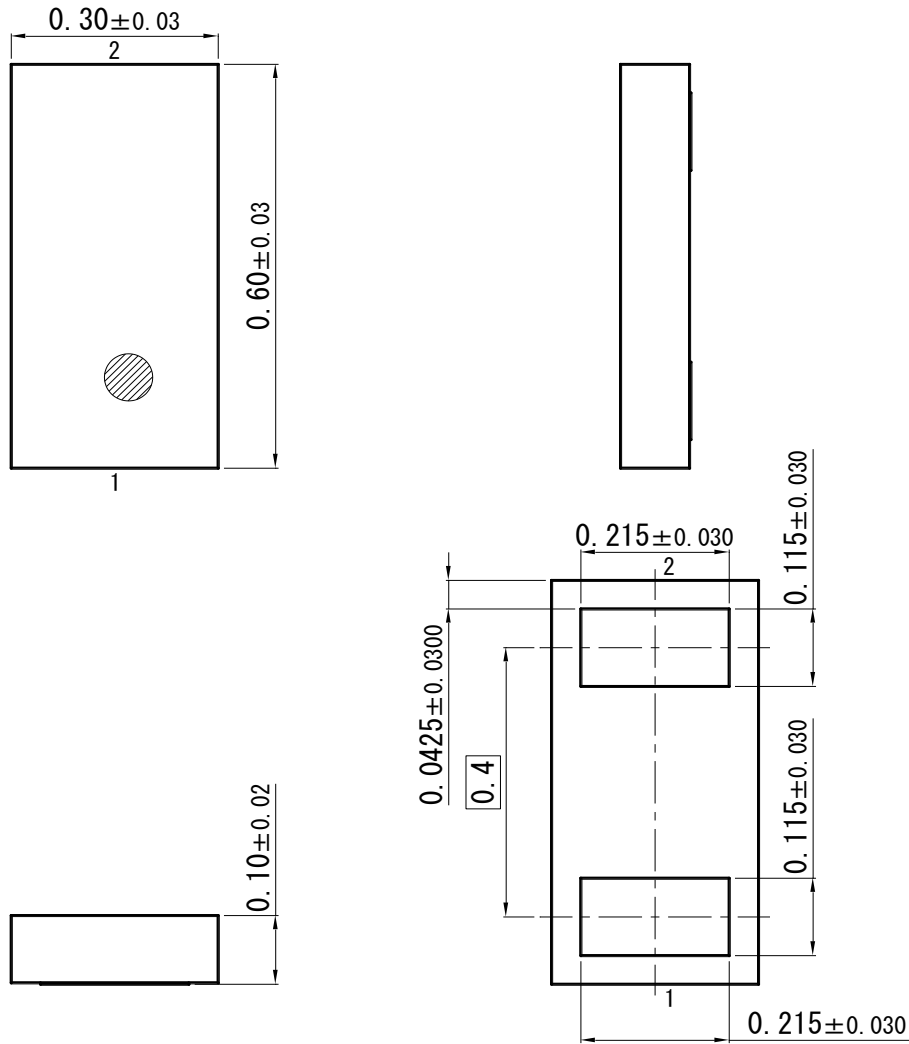
Technical Data (Reference)





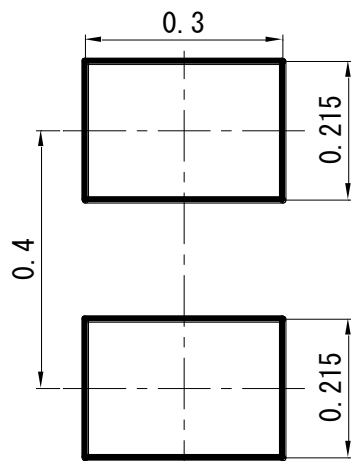
DCSP0603010-N2

Unit: mm



■ Land Pattern (Reference)

Unit: mm



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