

DY2L3A0C0L1

Silicon epitaxial planar type

For bidirectional ESD protection and transient voltage suppressor

■ Features

- IEC 61000-4-2 (ESD) $\pm 15\text{kV}$ (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: F1

■ Packaging

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

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

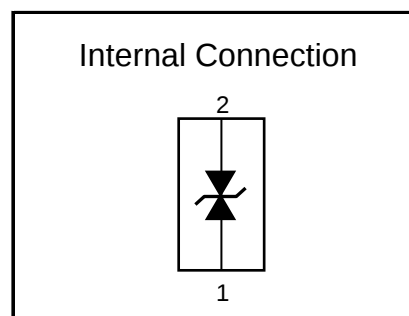
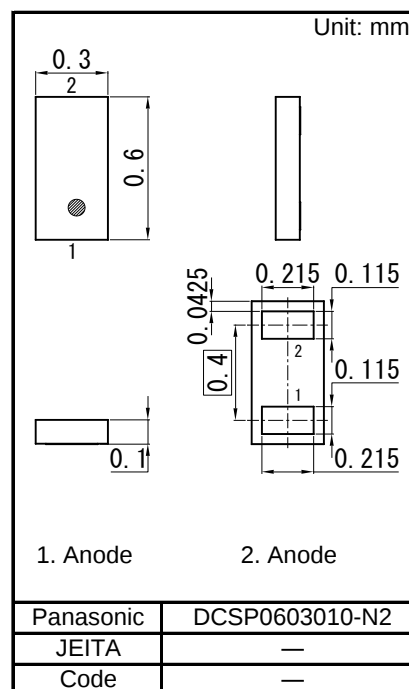
Parameter	Symbol	Rating	Unit
Total power dissipation ^{*1}	PT	100	mW
Electrostatic discharge ^{*2}	ESD	± 15	kV
Peak pulse power ^{*3}	Ppp	23	W
Peak pulse current ^{*3}	Ipp	2.6	A
Junction temperature	Tj	150	$^\circ\text{C}$
Operating ambient temperature	Topr	-40 to +85	$^\circ\text{C}$
Storage temperature	Tstg	-55 to +150	$^\circ\text{C}$

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 μs , Unrepeated)



■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse stand-off voltage	VRWM	—			3.0	V
Reverse breakdown voltage ^{*1, *2}	VBR	IR = 5 mA	5.39	5.80	6.21	V
Reverse current	IR	VR = 3 V			10	μA
Clamping voltage ^{*3}	Vc	Ipp = 2.6 A, tp = 8/20 μs			10	V
Terminal capacitance	Ct	VR = 0 V, f = 1 MHz		8.5		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.

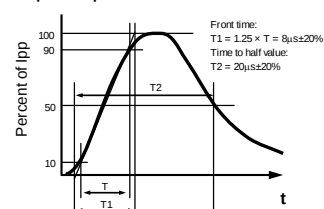
3. ^{*1} The temperature must be controlled 25°C for VBR measurement.

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

^{*2} VBR guaranteed 20 ms after current flow.

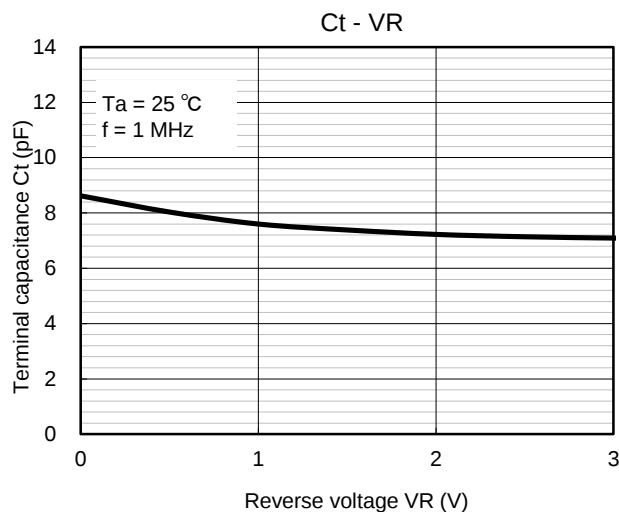
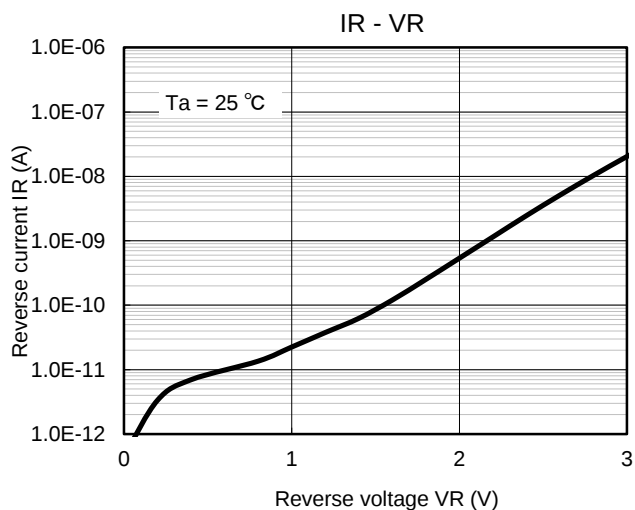
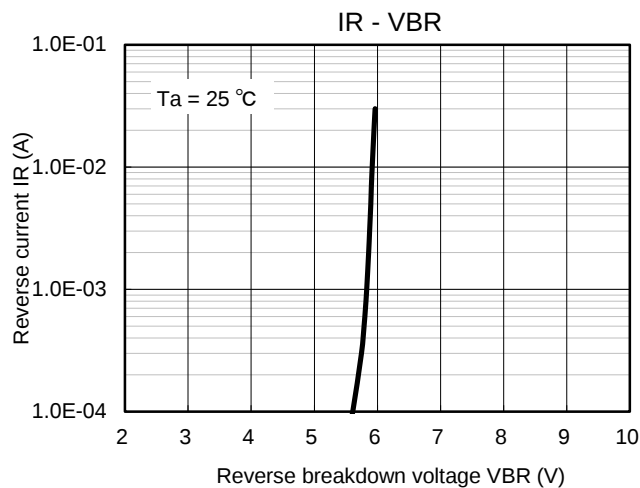
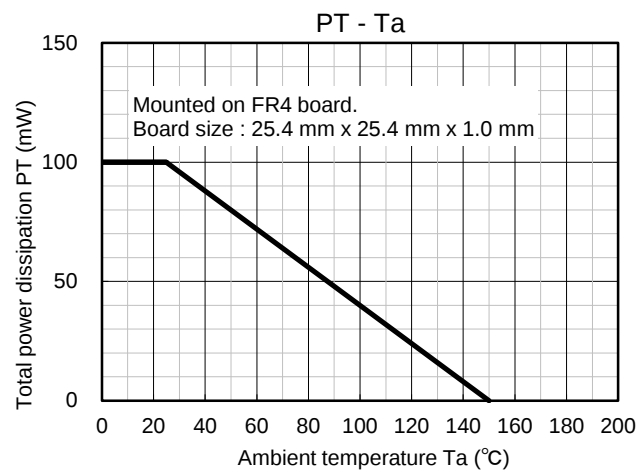
^{*3} 8 μs /20 μs Pulse Waveform

8 μs /20 μs Pulse Waveform



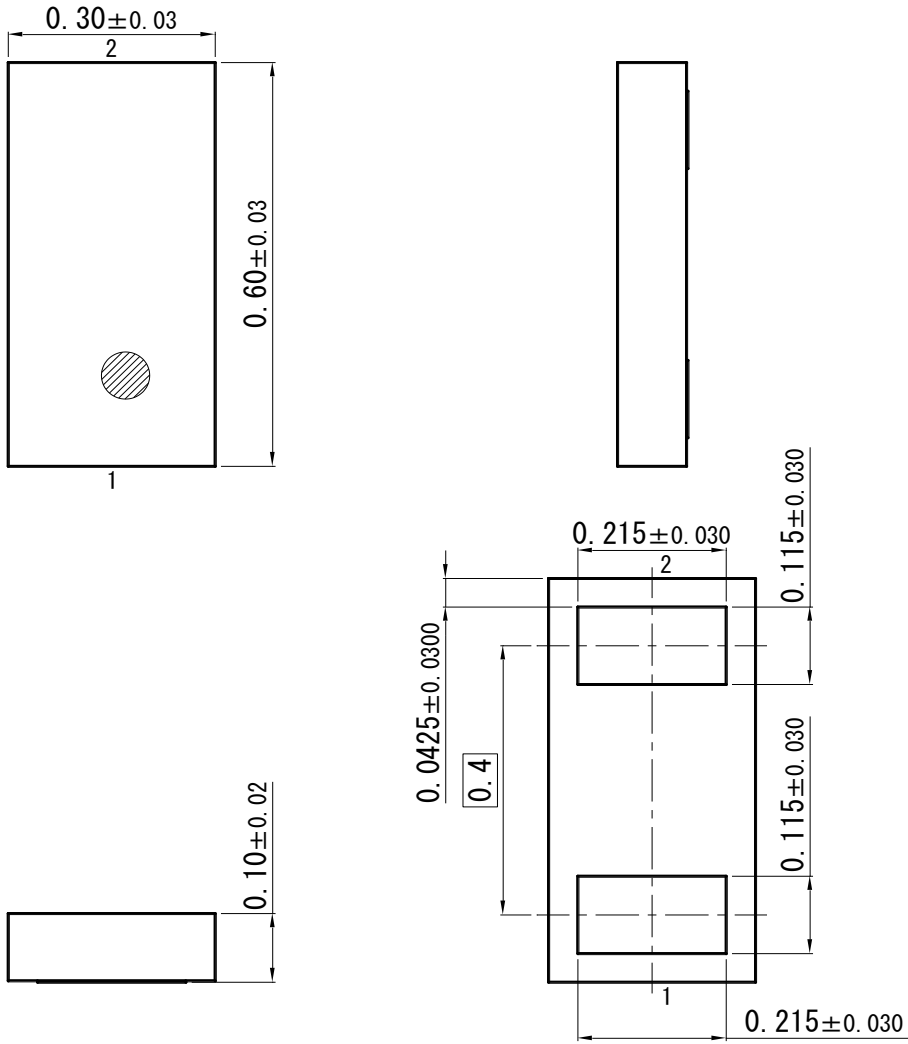
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Technical Data (Reference)



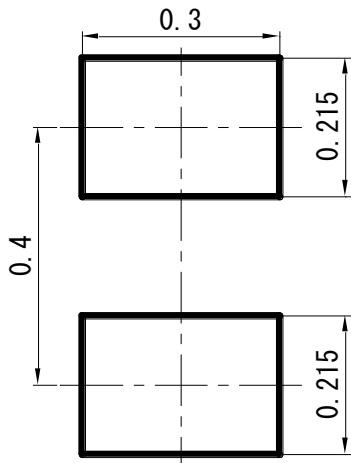
DY2I DCSP0603010-N2

Unit: mm



■ Land Pattern (Reference)

Unit: mm



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