Zener Diode

Panasonic DZ2J033×0L

DZ2J033×0L

Silicon epitaxial planar type

For constant voltage / For surge absorption circuit

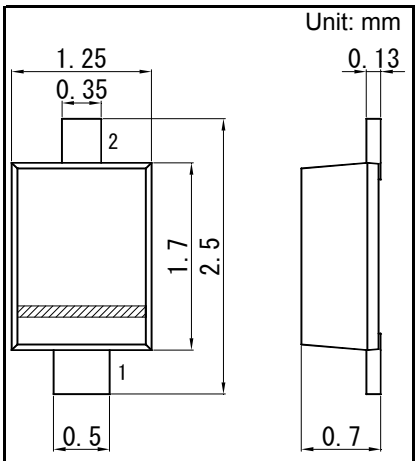
■ Features

- 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: 5J or 5U

■ Packaging

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



1. Cathode
2. Anode

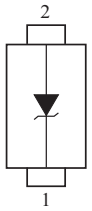
Panasonic	SMini2-F5-B
JEITA	SC-90A
Code	—

■ Absolute Maximum Ratings Ta = 25 °C

Parameter	Symbol	Rating	Unit
Repetitive peak forward current	IFRM	200	mA
Total power dissipation *1	PT	200	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 (Recommended land pattern)
*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	3.14		3.47	V
Zener operating resistance	RZ	IZ = 5 mA			130	Ω
Reverse current	IR	VR = 1 V			20	μA
Temperature coefficient of zener voltage *3	SZ	IZ = 5 mA		-2.1		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

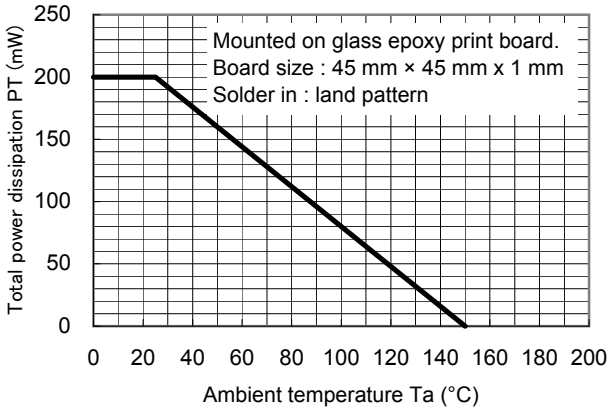
Code	M	0
Rank	M	No-rank
VZ	3.22 to 3.38	3.14 to 3.47
Marking symbol	5U	5J

Established : 2009-10-14
Revised : 2013-07-01

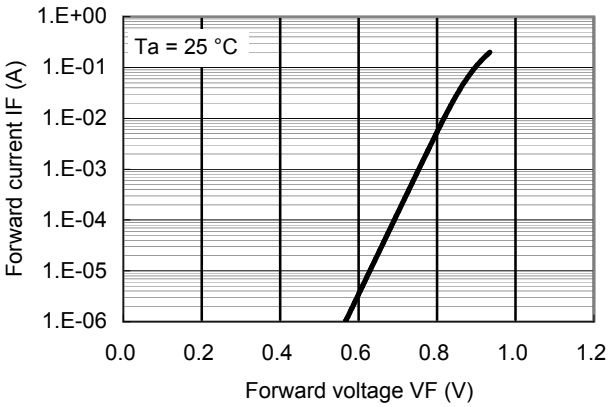
Panasonic

Technical Data (reference)

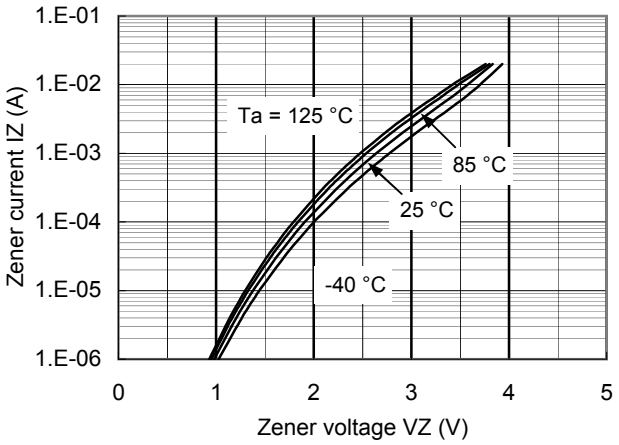
PT - Ta



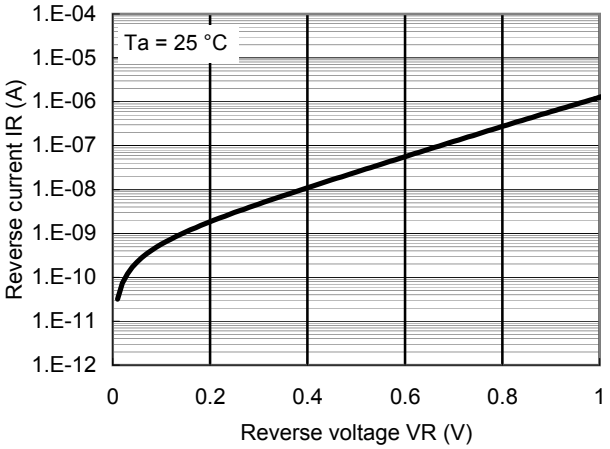
IF - VF



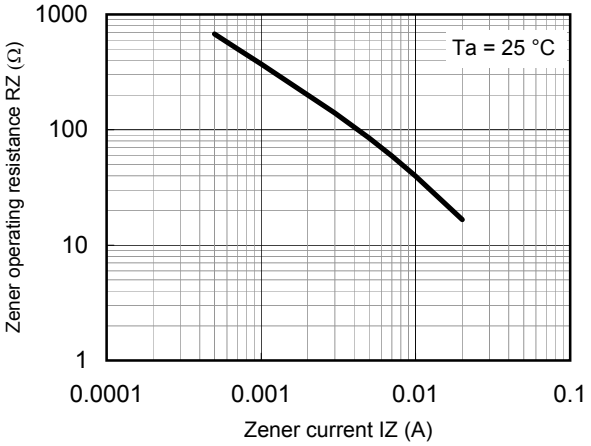
IZ - VZ



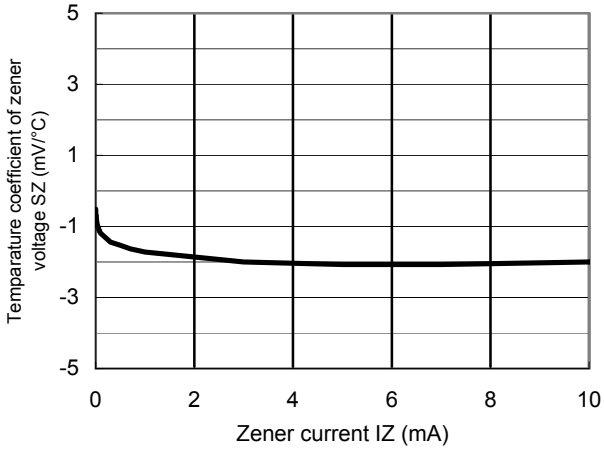
IR - VR



RZ - IZ



SZ - IZ



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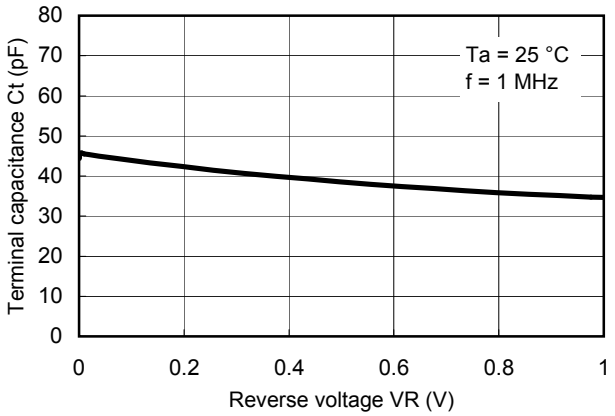
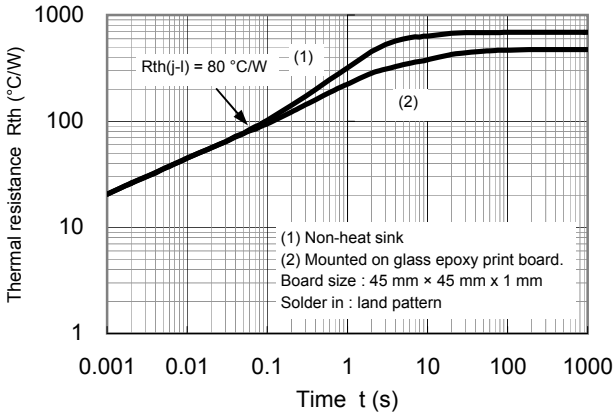
Technical Data (reference)

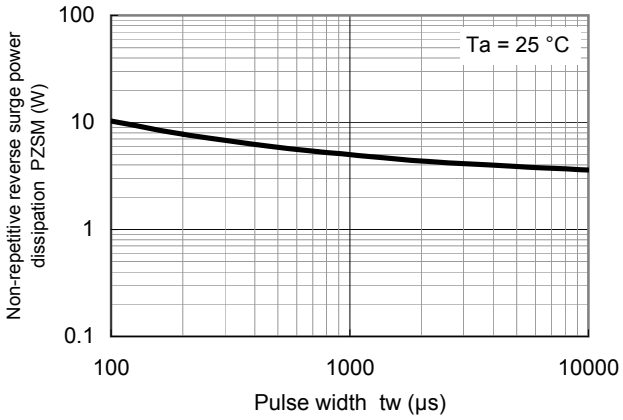
Ct - VR



Rth - t



PZSM - tw



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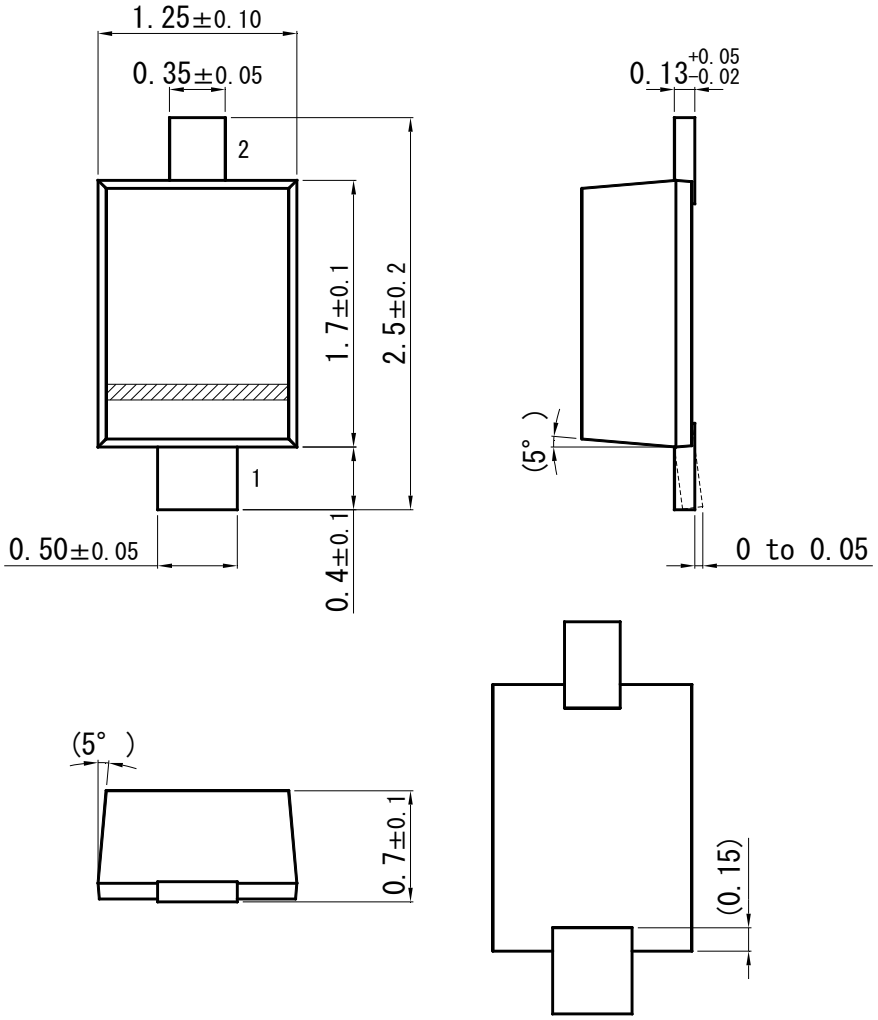
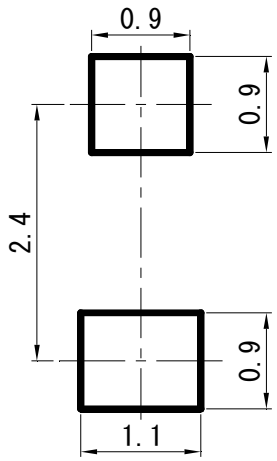
SMini2-F5-B

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



Established : 2009-10-14
Revised : 2013-07-01

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