

Panasonic

Zener Diode
DZ2J390×0L

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Silicon epitaxial planar type

For constant voltage / For surge absorption circuit

■ Features

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

■ Marking Symbol: LG or LR

■ Packaging

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

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

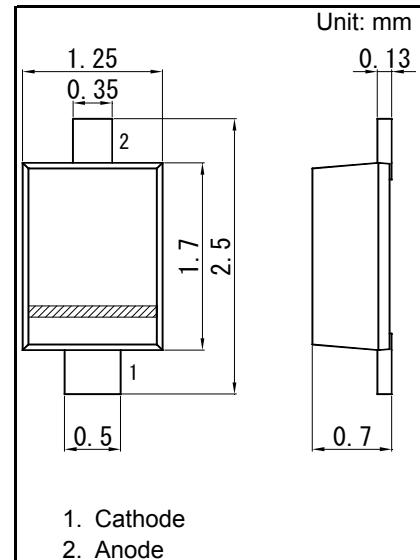
Parameter	Symbol	Rating	Unit
Repetitive peak forward current	IFRM	200	mA
Total power dissipation ^{*1}	PT	200	mW
Electrostatic discharge ^{*2}	ESD	± 8	kV
Junction temperature	T _j	150	°C
Operating ambient temperature	T _{opr}	-40 to +85	°C
Storage temperature	T _{stg}	-55 to +150	°C

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

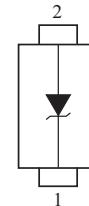
($C = 150 \text{ pF}$, $R = 330 \Omega$, Contact discharge : 10 times)



1. Cathode
2. Anode

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

Internal Connection



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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	VF	IF = 10 mA			1.0	V
Zener voltage ^{*1, *2}	VZ	$I_Z = 2 \text{ mA}$	37.05		40.95	V
Zener operating resistance	RZ	$I_Z = 2 \text{ mA}$			300	Ω
Zener rise operating resistance	RZK	$I_Z = 0.5 \text{ mA}$			300	Ω
Reverse current	IR	$VR = 30 \text{ V}$			0.05	μA
Temperature coefficient of zener voltage ^{*3}	SZ	$I_Z = 2 \text{ mA}$			37.2	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 measurement.

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

*2 VZ guaranteed 20 ms after current flow

*3 $T_j = 25^\circ\text{C}$ to 150°C

Rank classification

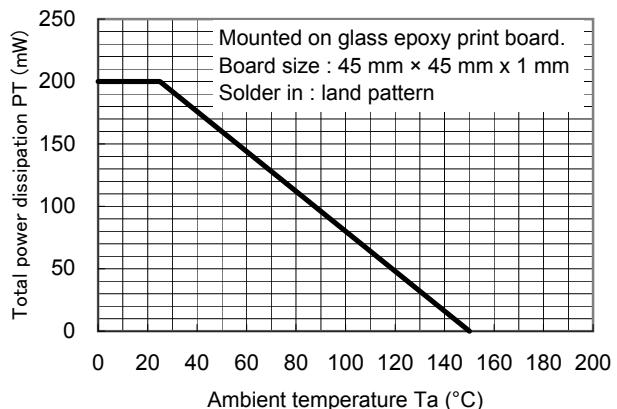
Code	M	0
Rank	M	No-rank
VZ	38.03 to 39.98	37.05 to 40.95
Marking symbol	LR	LG



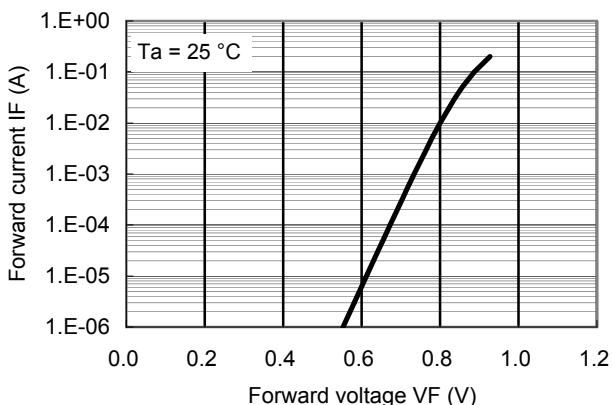
Zener Diode
DZ2J390x0L

Technical Data (reference)

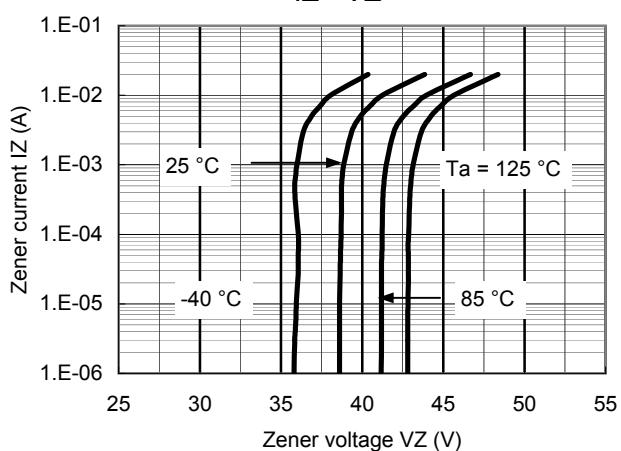
PT - Ta



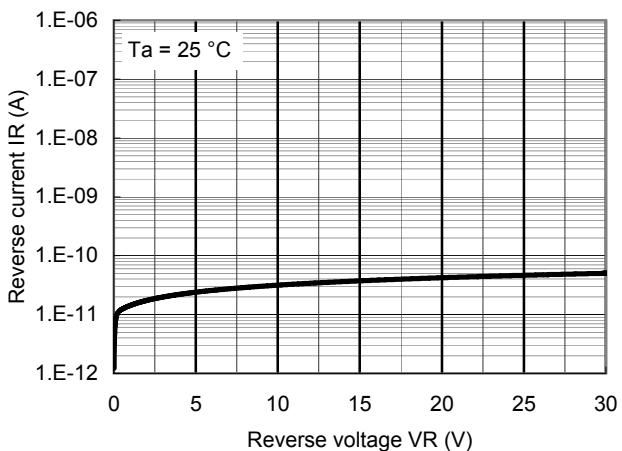
IF - VF



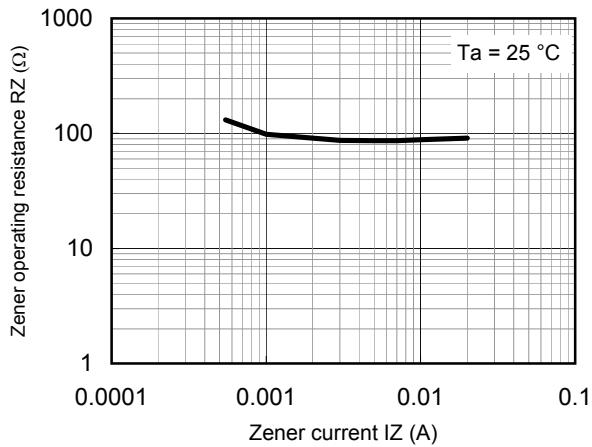
IZ - VZ



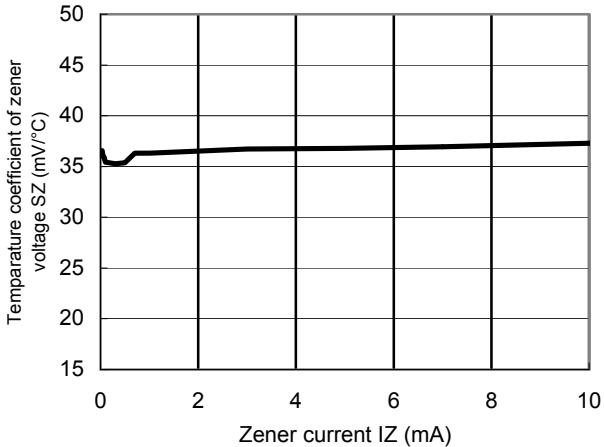
IR - VR



RZ - IZ



SZ - IZ



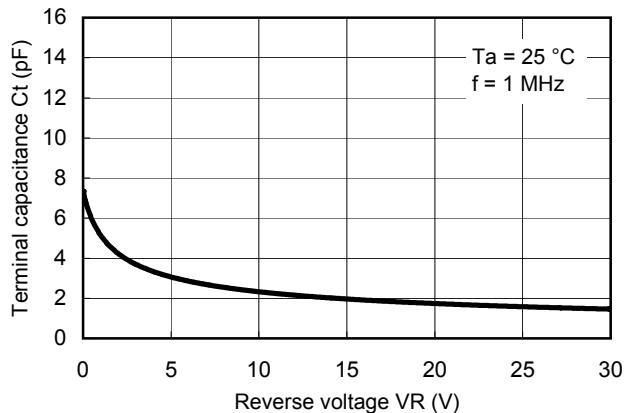


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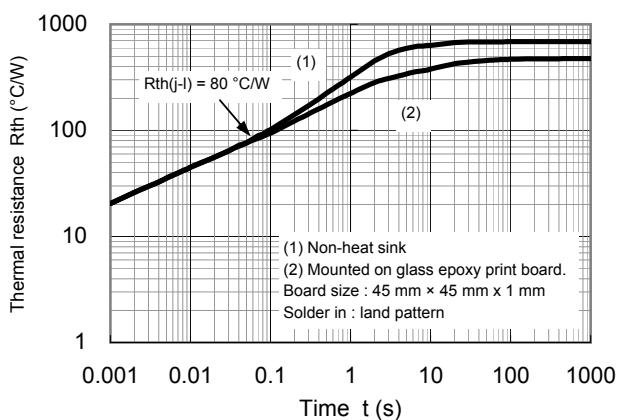
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Technical Data (reference)

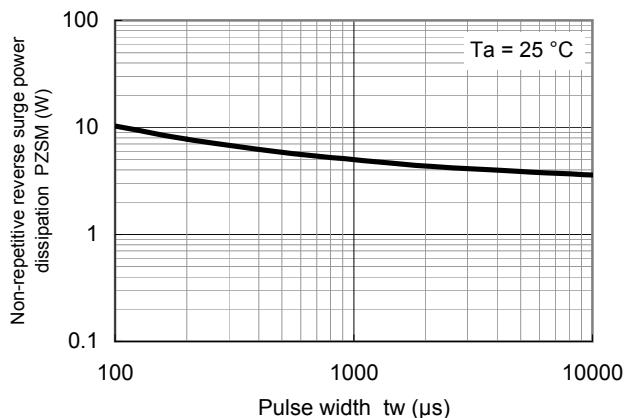
Ct - VR



Rth - t



PZSM - tw

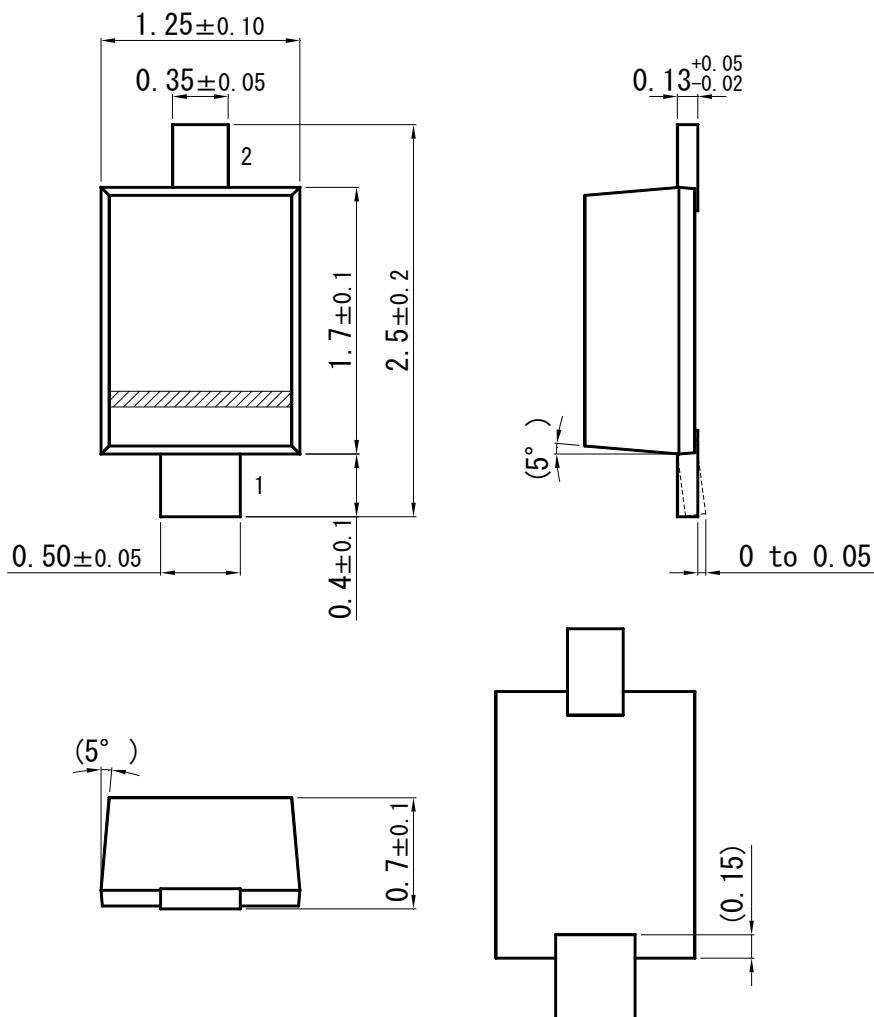


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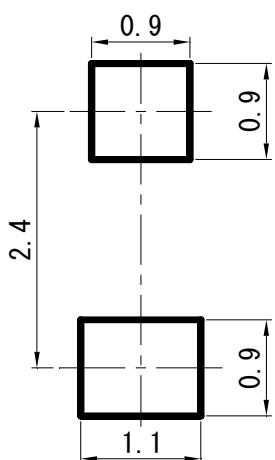
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SMini2-F5-B

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



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