

Panasonic

Zener Diode
DZ37120D0L

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Silicon epitaxial planar type

For surge absorption circuit
DZ3S120D in SSSMini3 type package

■ 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: 05

■ Packaging

Embossed type (Thermo-compression sealing) 10 000 pcs / reel (standard)

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

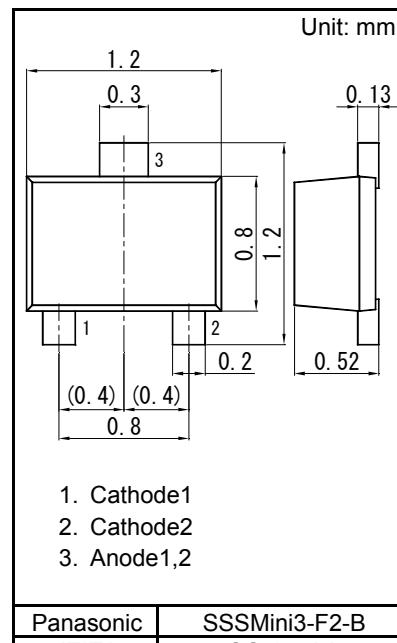
Parameter	Symbol	Rating	Unit
Total power dissipation ^{*1}	PT	150	mW
Electrostatic discharge ^{*2}	ESD	± 10	kV
Junction temperature	T _j	150	°C
Operating ambient temperature	T _{opr}	-40 to +85	°C
Storage temperature	T _{stg}	-55 to +150	°C

Note) *1: Mounted on glass epoxy print board. (45 mm x 45 mm x 1 mm)

(2 Diode total)

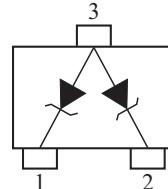
Solder in (Recommended land pattern)

*2: Test method:IEC61000_4_2(C = 150 pF, R = 330 Ω, Contact discharge:10 times)



Panasonic	SSSSmini3-F2-B
JEITA	SC-105AA
Code	SOT-723

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	$I_Z = 5 \text{ mA}$	11.40		12.60	V
Zener operating resistance	RZ	$I_Z = 5 \text{ mA}$			30	Ω
Zener rise operating resistance	RZK	$I_Z = 0.5 \text{ mA}$			80	Ω
Reverse current	IR	$VR = 9 \text{ V}$			0.05	μA
Temperature coefficient of zener voltage ^{*3}	SZ	$I_Z = 5 \text{ mA}$		8.5		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 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

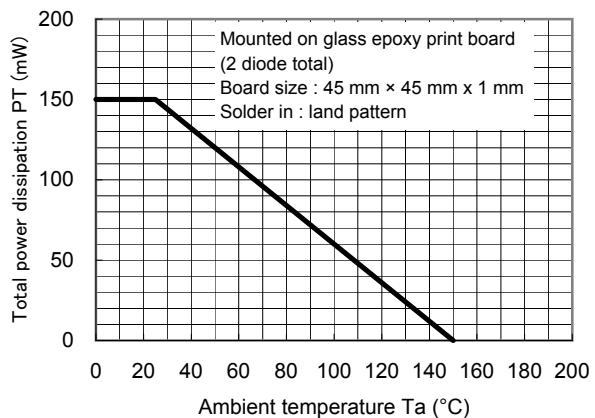
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Zener Diode

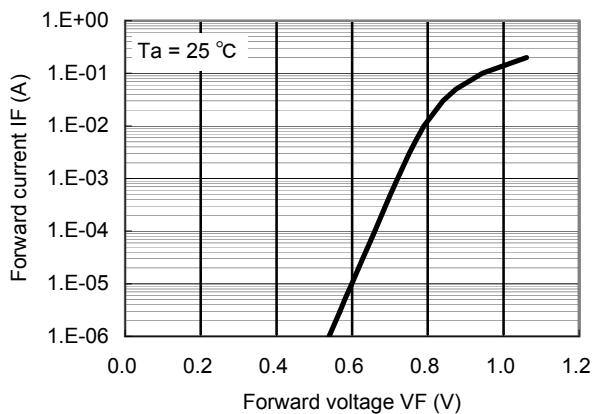
DZ37120D0L

Technical Data (reference)

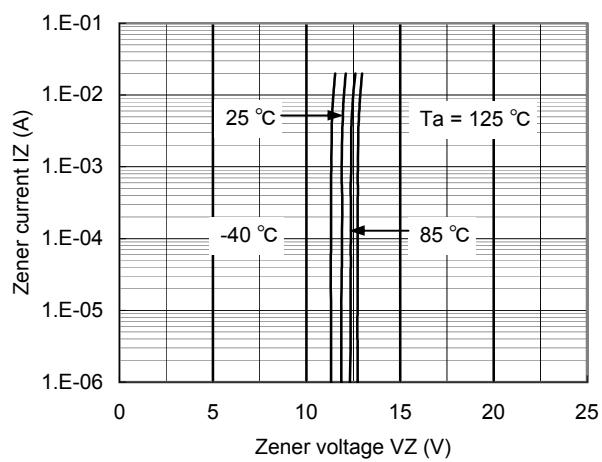
PT - Ta



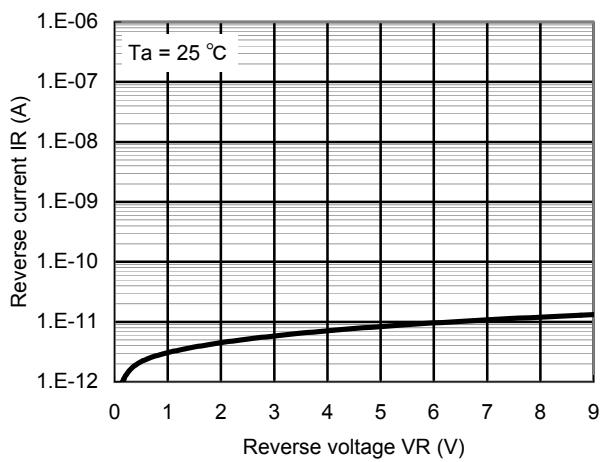
IF - VF



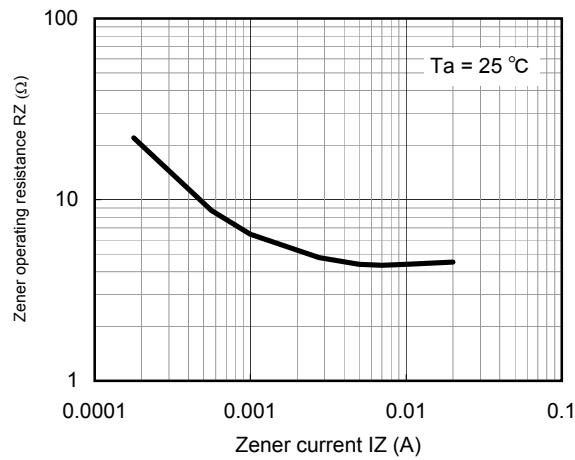
IZ - VZ



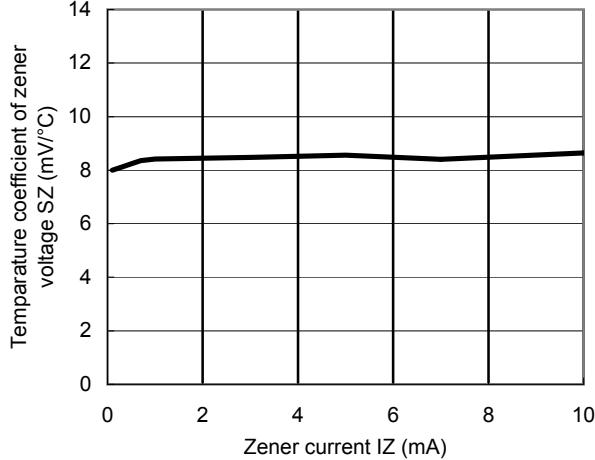
IR - VR



RZ - IZ



SZ - IZ



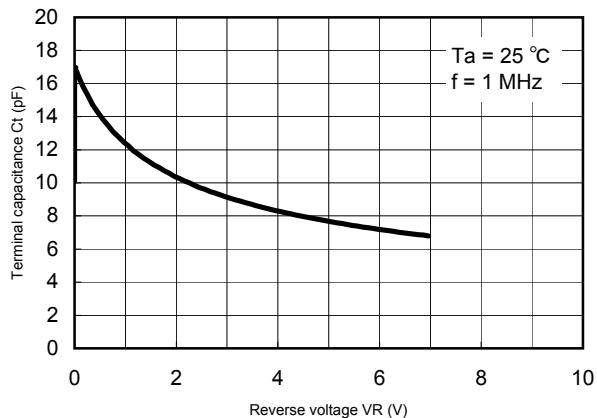
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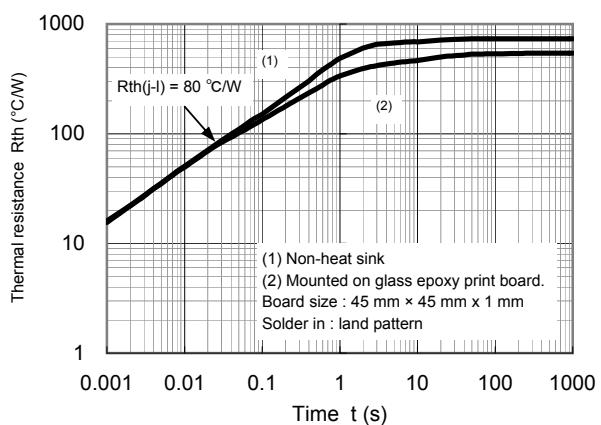
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Technical Data (reference)

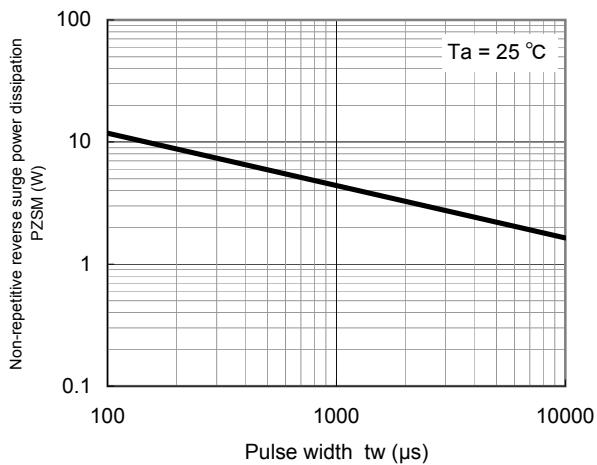
Ct - VR



Rth - t



PZSM - tw



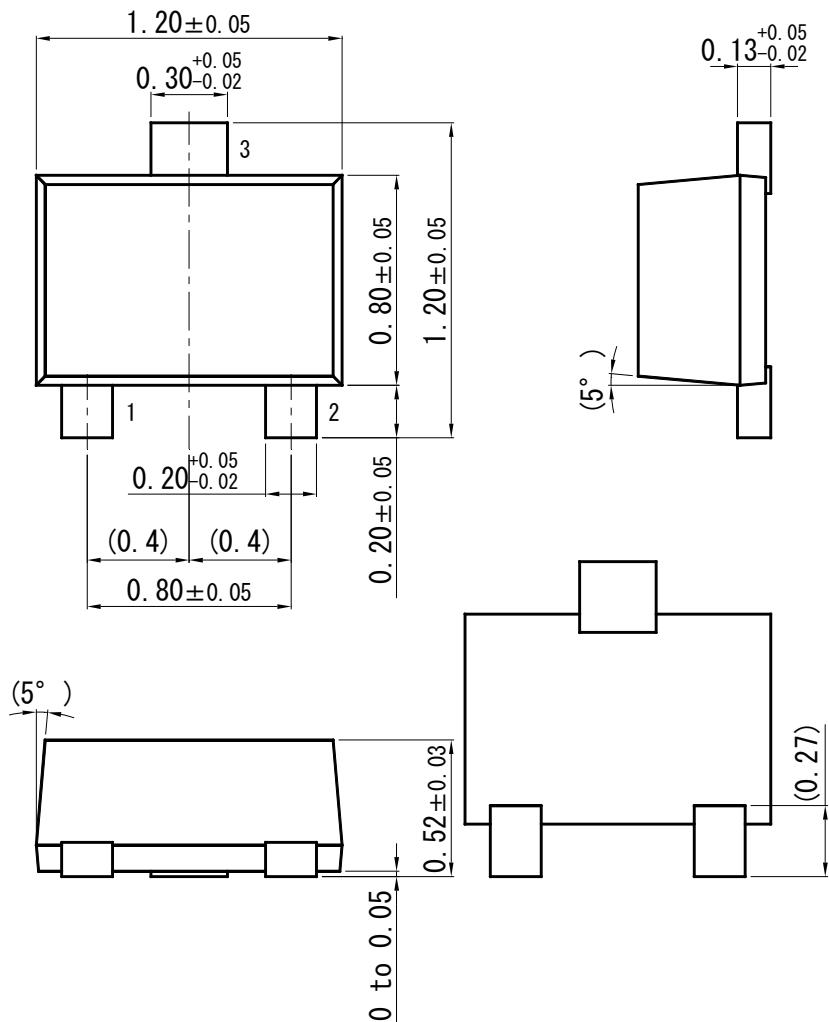
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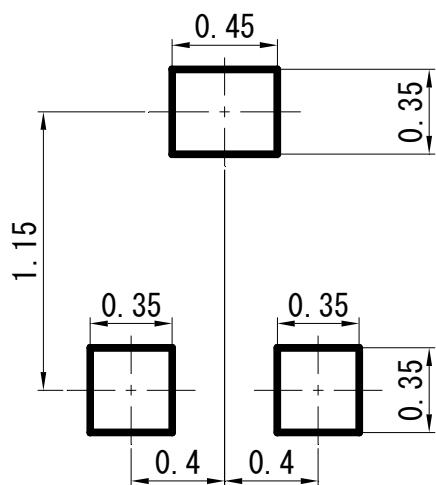
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SSSMini3-F2-B

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



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