

Panasonic

DZ5J120D0R

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Silicon epitaxial planar type

For surge absorption circuit

DZ5X120D in SMini5 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

■ Basic Part Number :

Dual DZ3X120D (Common anode)

■ Packaging

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

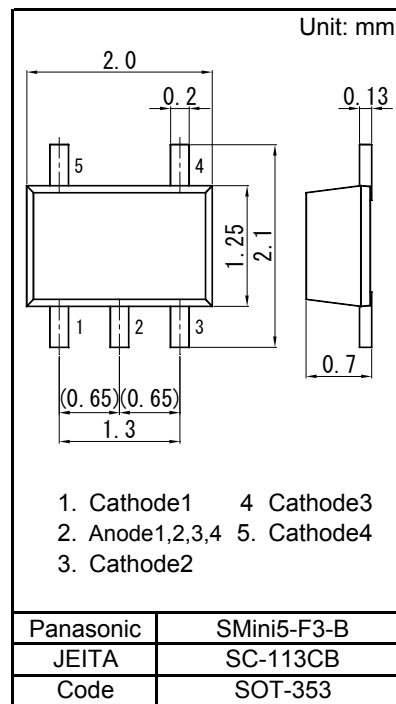
■ Absolute Maximum Ratings $T_a = 25\text{ }^{\circ}\text{C}$

Parameter	Symbol	Rating	Unit
Total power dissipation ^{*1}	PT	200	mW
Electrostatic discharge ^{*2}	ESD	±10	kV
Junction temperature	T_j	150	$^{\circ}\text{C}$
Operating ambient temperature	T_{opr}	-40 to +85	$^{\circ}\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^{\circ}\text{C}$

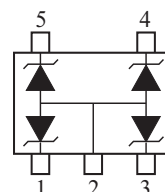
Note) *1: PT = 200 mW achieved with a printed circuit board.

(4Diode total)

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



Internal Connection



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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_F	$I_F = 10\text{ mA}$			1.0	V
Zener voltage ^{*1, *2}	V_Z	$I_Z = 5\text{ mA}$	11.40		12.60	V
Zener operating resistance	R_Z	$I_Z = 5\text{ mA}$			30	Ω
Zener rise operating resistance	R_{ZK}	$I_Z = 0.5\text{ mA}$			80	Ω
Reverse current	I_R	$V_R = 9\text{ V}$			0.05	μA
Temperature coefficient of zener voltage ^{*3}	SZ	$I_Z = 5\text{ mA}$		8.5		$\text{mV}/^{\circ}\text{C}$

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 Measuring methods for Diodes.

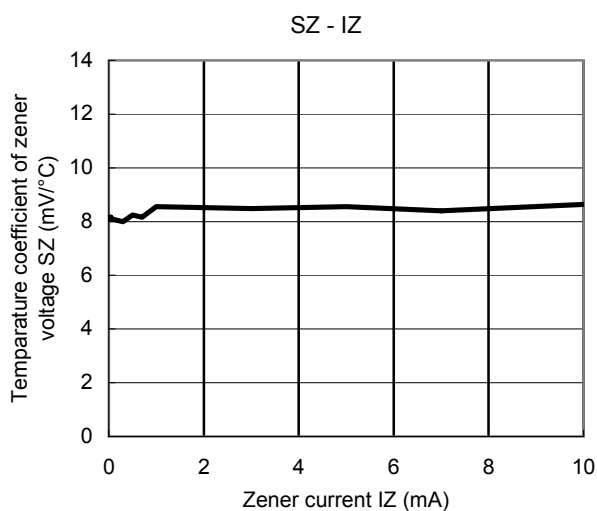
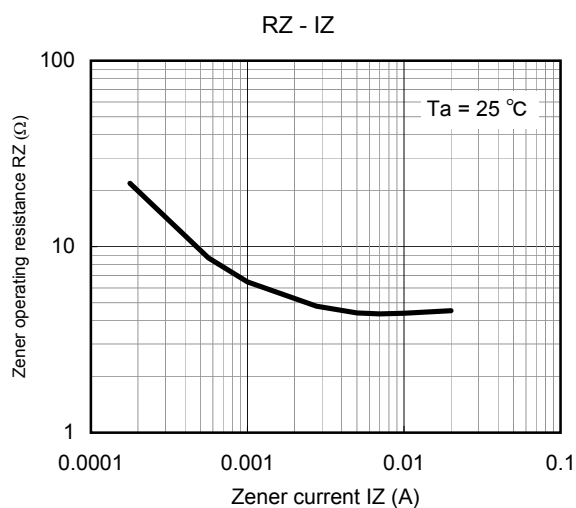
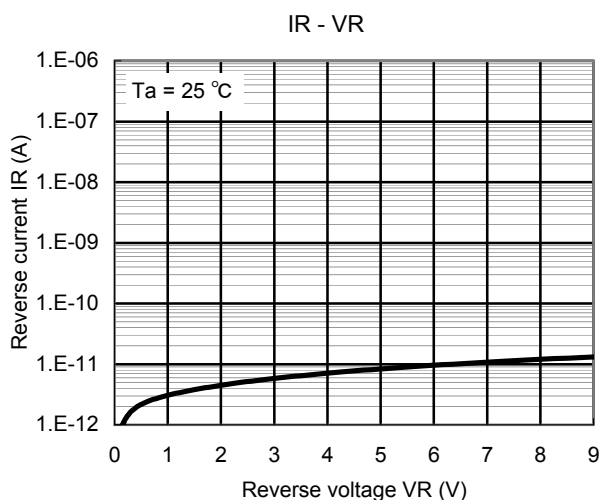
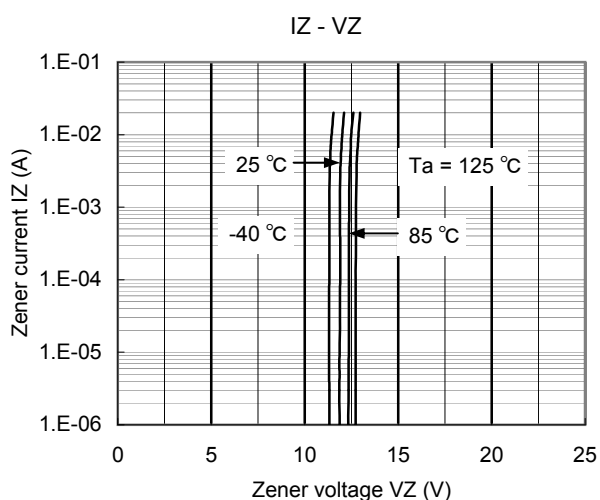
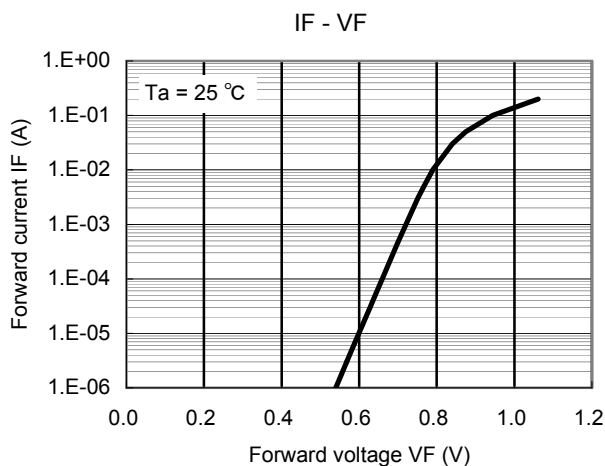
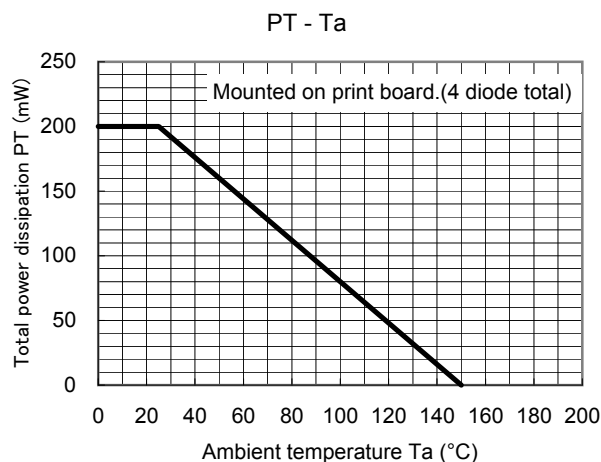
2. *1: The temperature must be controlled $25\text{ }^{\circ}\text{C}$ for V_Z measurement.

V_Z value measured at other temperature must be adjusted to $V_Z (25\text{ }^{\circ}\text{C})$

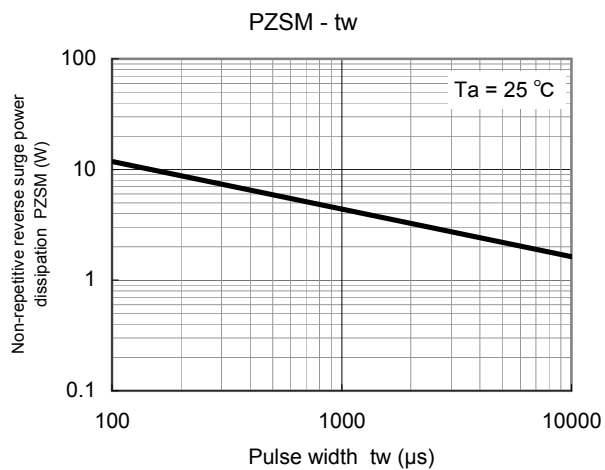
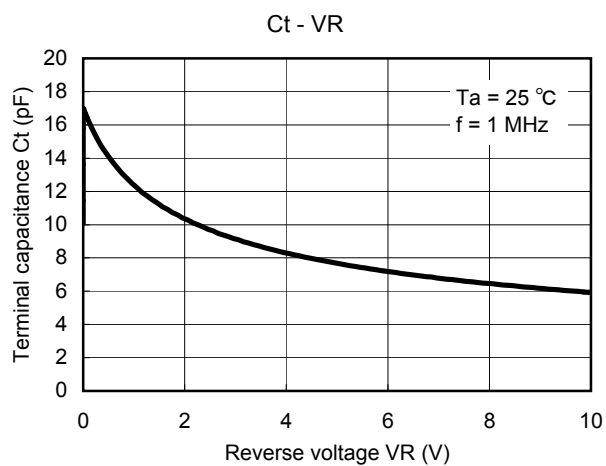
*2: V_Z guaranteed 20 ms after current flow.

*3: $T_j = 25\text{ }^{\circ}\text{C}$ to $150\text{ }^{\circ}\text{C}$

Technical Data (reference)



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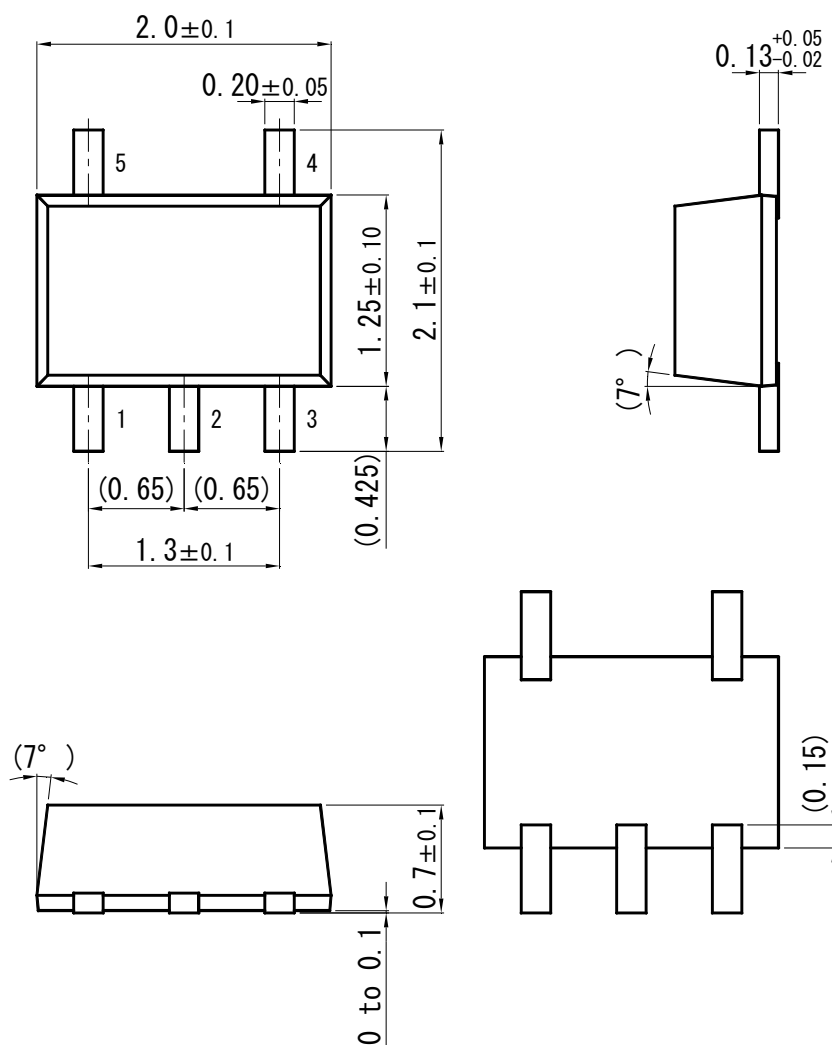


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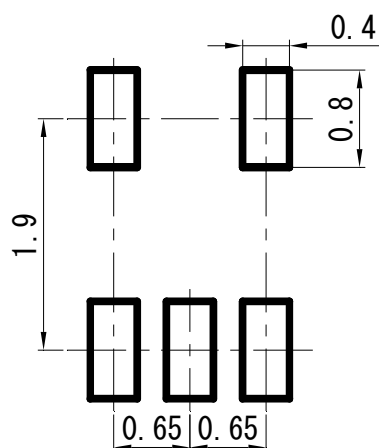
Zener Diode
DZ5J120D0R

SMini5-F3-B

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



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