



# DZ2W13000L

Silicon epitaxial planar type

For constant voltage / For surge absorption circuit  
DZ24130 in Mini2 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: SJ

### ■ 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
Repetitive peak forward current	IFRM	500	mA
Forward current	IF	200	mA
Total power dissipation <sup>*1</sup>	PT	1	W
Non-repetitive reverse power surge <sup>*2</sup>	PZSM	100	W
Electrostatic discharge <sup>*3</sup>	ESD	±30	kV
Junction temperature	T <sub>j</sub>	150	°C
Operating ambient temperature	T <sub>opr</sub>	-40 to +85	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

Note: \*1 Mounted on ceramics print circuit board.

Board size: 50 mm × 50 mm

Board thickness: 0.8 mm

Soldering size: 2 mm × 2 mm

\*2  $t = 0.1\text{ms}$

\*3 Test method: IEC61000\_4\_2(C = 150 pF, R = 330 Ω, Contact discharge: 10 times)

### ■ 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 <sub>F</sub>	I <sub>F</sub> = 200 mA			1.2	V
Zener voltage <sup>*1, *2</sup>	V <sub>Z</sub>	I <sub>Z</sub> = 10 mA	12.35	13.00	13.65	V
Zener operating resistance	R <sub>Z</sub>	I <sub>Z</sub> = 10 mA			30	Ω
Reverse current	I <sub>R</sub>	V <sub>R</sub> = 9.0 V			10	μA
Temperature coefficient of zener voltage <sup>*3</sup>	SZ	I <sub>Z</sub> = 10 mA		10.5		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 V<sub>Z</sub> measurement.

V<sub>Z</sub> value measured at other temperature must be adjusted to V<sub>Z</sub> (25°C)

\*2 V<sub>Z</sub> guaranteed 20 ms after current flow.

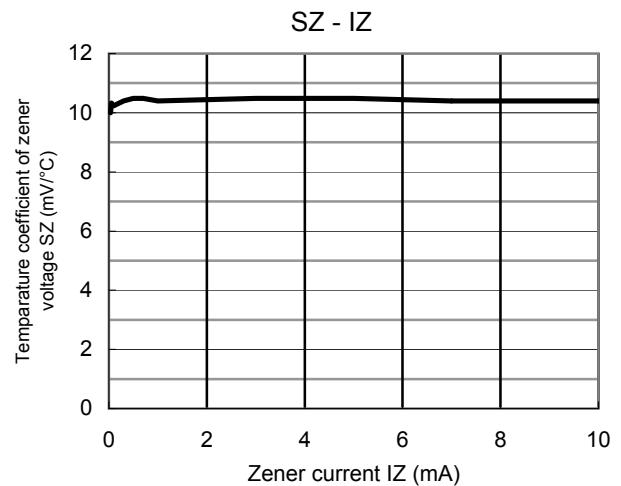
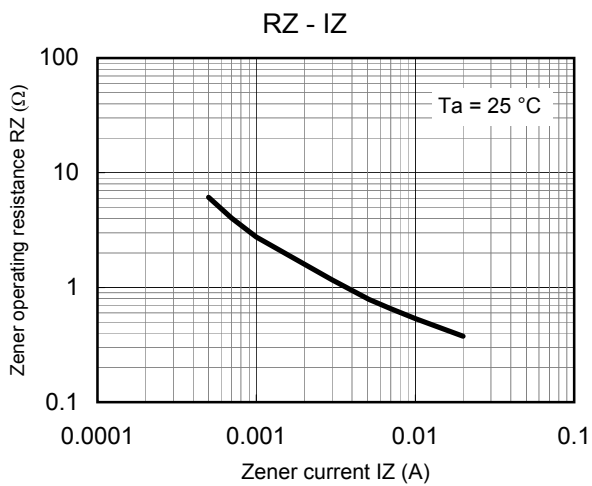
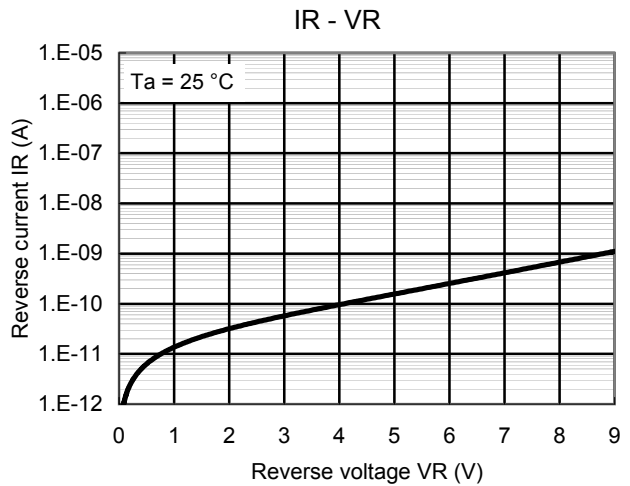
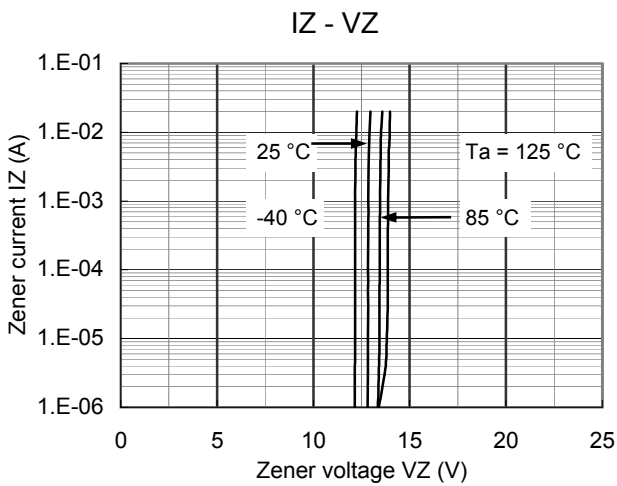
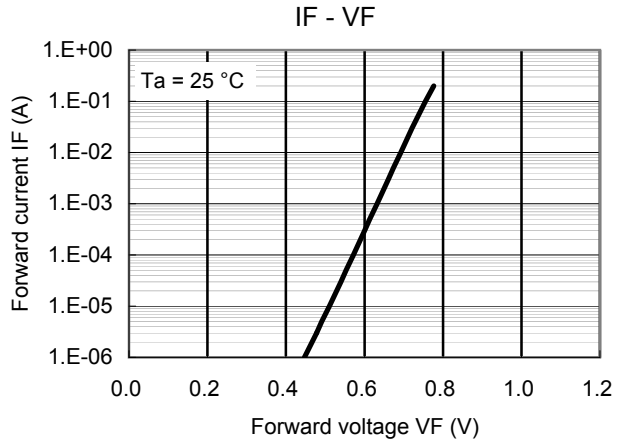
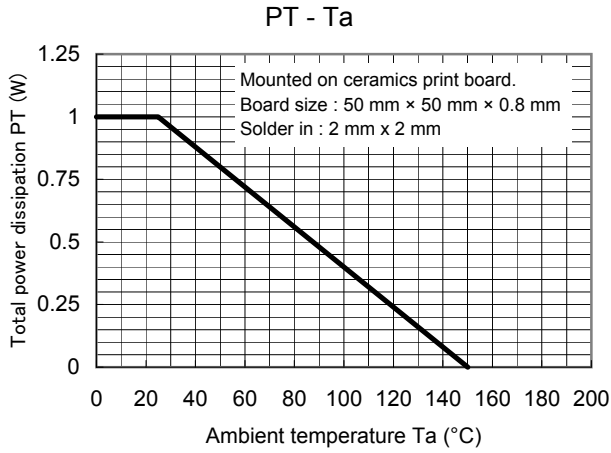
\*3 T<sub>j</sub> = 25°C to 150°C



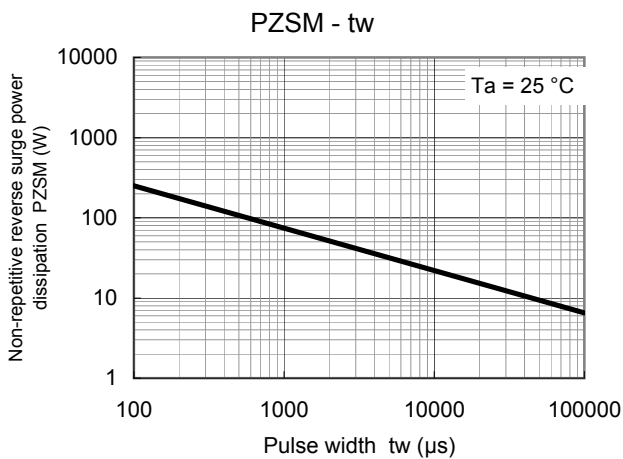
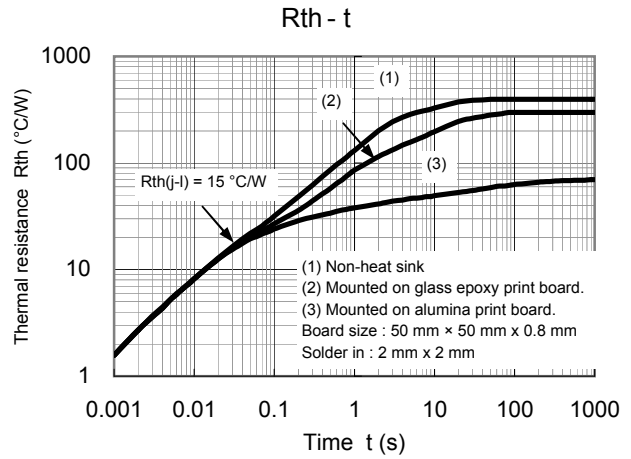
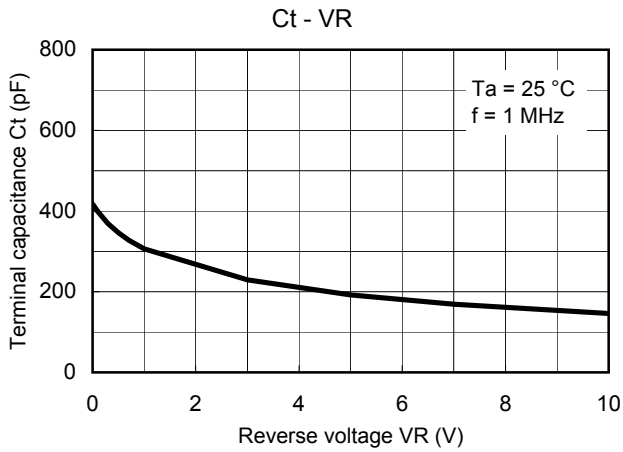
Panasonic	Mini2-F3-B
JEITA	SC-109B
Code	—



Technical Data ( reference )



Technical Data ( reference )





### Mini2-F3-B

Unit: mm



#### ■ Land Pattern (Reference) (Unit: mm)



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