

DZ24051

Silicon epitaxial planar type

For constant voltage / For surge absorption circuit
 Capability of withstanding a high surge type
 DZ2W051 in Power 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: CJ

■ Packaging

DZ2405100L Embossed type (Thermo-compression sealing): 3 000 pcs / reel (standard)

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

Parameter	Symbol	Rating	Unit
Forward current	I_F	400	mA
Repetitive peak forward current	I_{FRM}	500	mA
Total power dissipation *1	P_T	2	W
Non-repetitive reverse surge power dissipation *2	P_{ZSM}	100	W
Electrostatic discharge *3	ESD	± 30	kV
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

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: $t = 0.1$ ms

*3: Test method: IEC61000-4-2 (C = 150 pF, R = 330 Ω , Contact discharge: 10 times)

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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_F	$I_F = 200$ mA			1.2	V
Zener voltage *1, 2	V_Z	$I_Z = 20$ mA	4.85	5.10	5.36	V
Zener operating resistance	R_Z	$I_Z = 20$ mA			50	Ω
Reverse current	I_R	$V_R = 1.0$ V			20	μA
Temperature coefficient of zener voltage *3	S_Z	$I_Z = 20$ mA		0.2		mV/ $^\circ\text{C}$

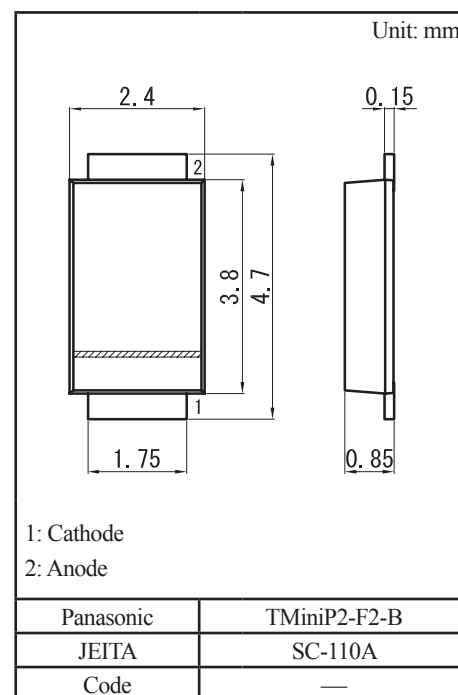
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.

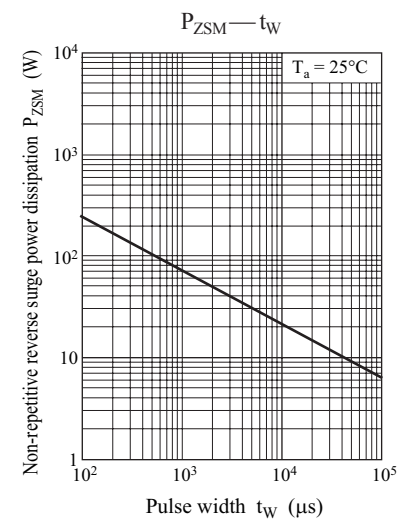
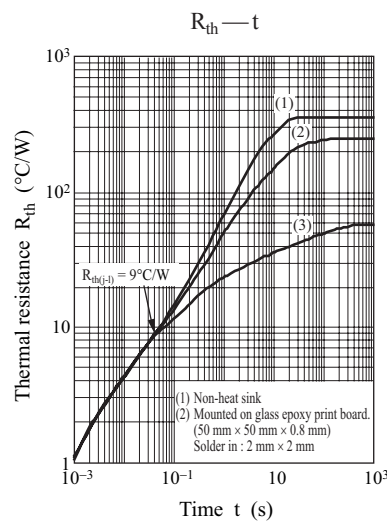
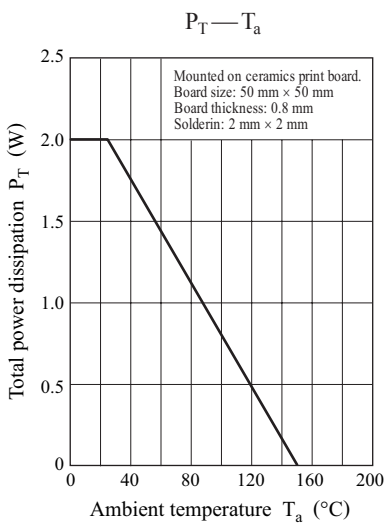
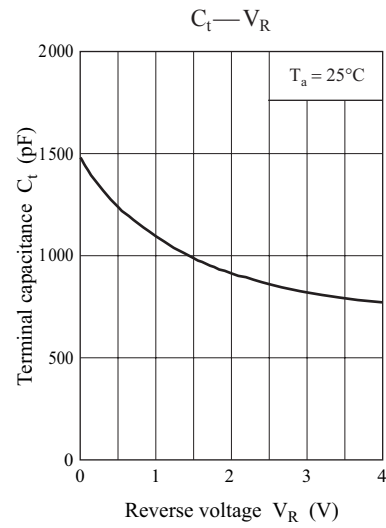
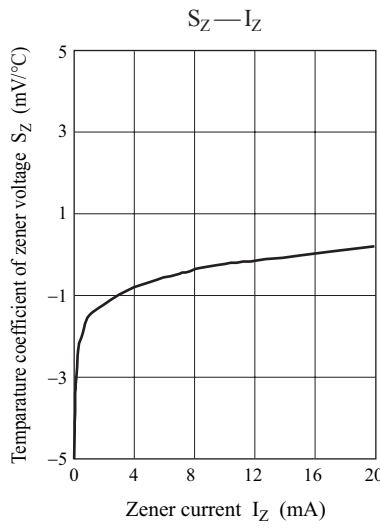
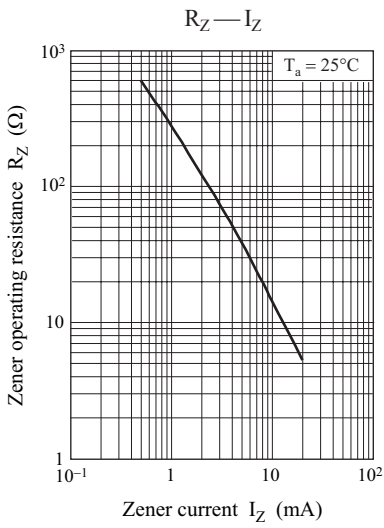
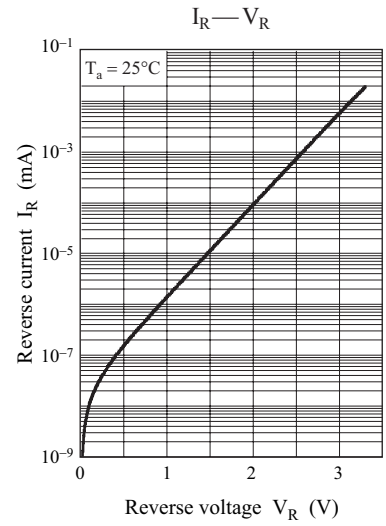
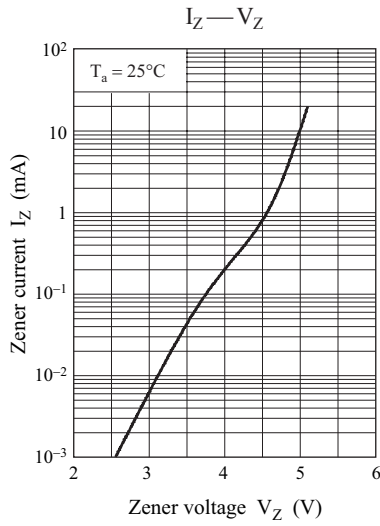
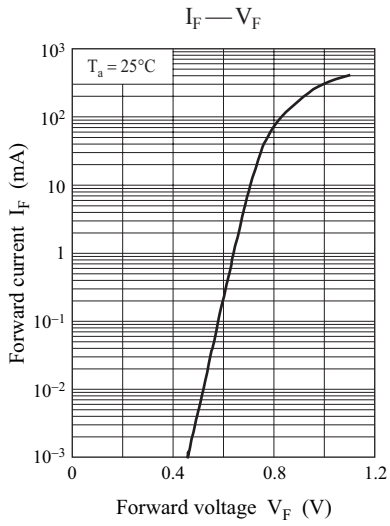
2. Absolute frequency of input and output is 5 MHz.

3. *1: The temperature must be controlled 25°C for V_Z measurement. V_Z value measured at other temperature must be adjusted to $V_Z(25^\circ\text{C})$

*2: V_Z guaranteed 20 ms after current flow.

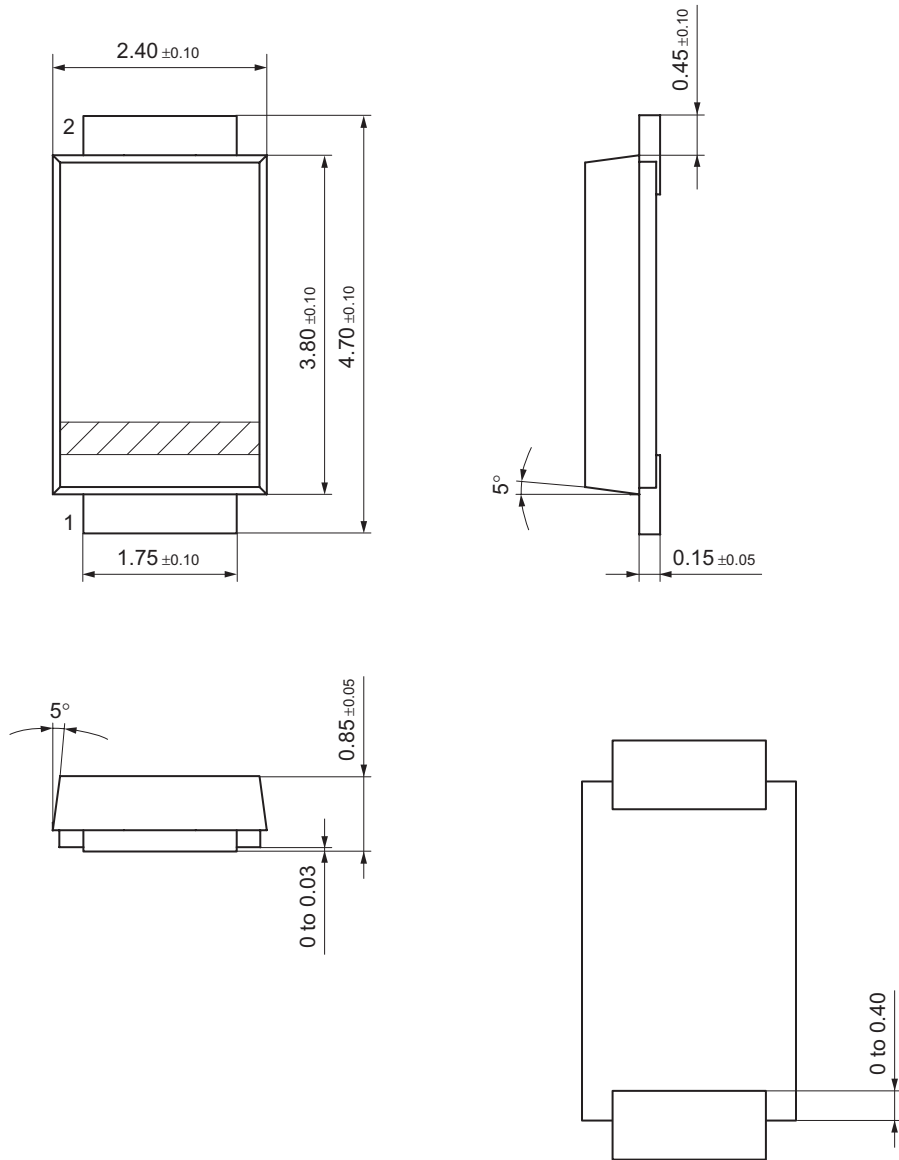
*3: $T_j = 25^\circ\text{C}$ to 150°C



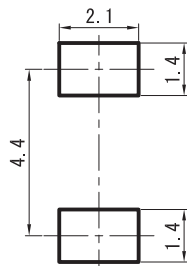


TMiniP2-F2-B

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



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