

Zener Diode DZ2W03000L

Unit: mm

0.13

### DZ2W03000L Silicon epitaxial planar type

# For constant voltage / For surge absorption circuit DZ24030 in Mini2 type package

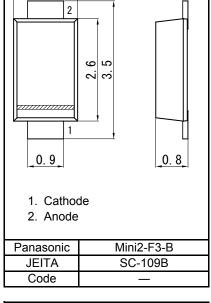
#### Features

- · Excellent rising characteristics of zener current Iz
- Low zener operating resistance Rz
- Halogen-free / RoHS compliant (EU RoHS / UL-94 V-0 / MSL:Level 1 compliant)
- Marking Symbol: 3J

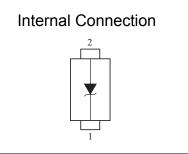
#### Packaging

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

■ Absolute Maximum Ratings Ta = 25	°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 *2	PZSM	100	W
Electrostatic discharge *3	ESD	±30	kV
Junction temperature	Tj	150	°C
Operating ambient temperature	Topr	-40 to +85	°C
Storage temperature	Tstg	-55 to +150	°C
Note: *1 Mounted on ceramics print circuit bo	ard.		
Board size: 50 mm × 50 mm			
Board thickness: 0.8 mm			



1.6



\*2 t = 0.1ms

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

### ■ Electrical Characteristics Ta = 25 °C ± 3 °C

Soldering size: 2 mm × 2 mm

Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Forward voltage	VF	IF = 200 mA			1.2	V
Zener voltage <sup>*1, *2</sup>	VZ	IZ = 20 mA	2.85	3.00	3.15	V
Zener operating resistance	RZ	IZ = 20 mA			120	Ω
Reverse current	IR	VR = 1 V			150	μA
Temperature coefficient of zener voltage *3	SZ	IZ = 20 mA		-1.7		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 mesurement.

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

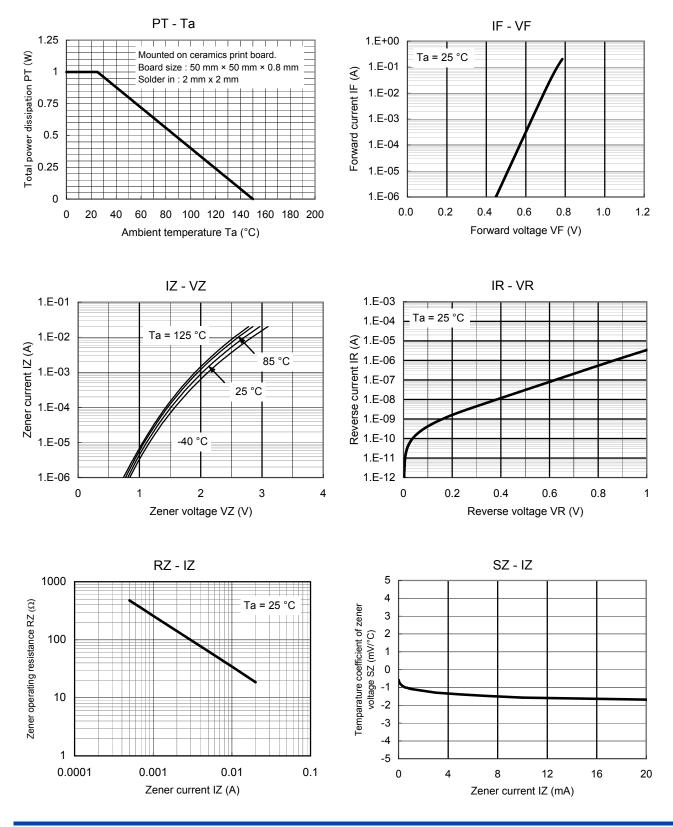
\*2 VZ guaranted 20 ms after current flow.

\*3 Tj = 25°C to 150°C



Zener Diode DZ2W03000L

### Technical Data (reference)



Established : 2011-03-11 Revised : 2013-05-08 3500

3000

2500

2000 1500

1000

500

0 L 0

10000

1000

100

10

1 └ 100

1000

Pulse width tw (µs)

10000

100000

Non-repetitive reverse surge power dissipation PZSM (W)

Terminal capacitance Ct (pF)



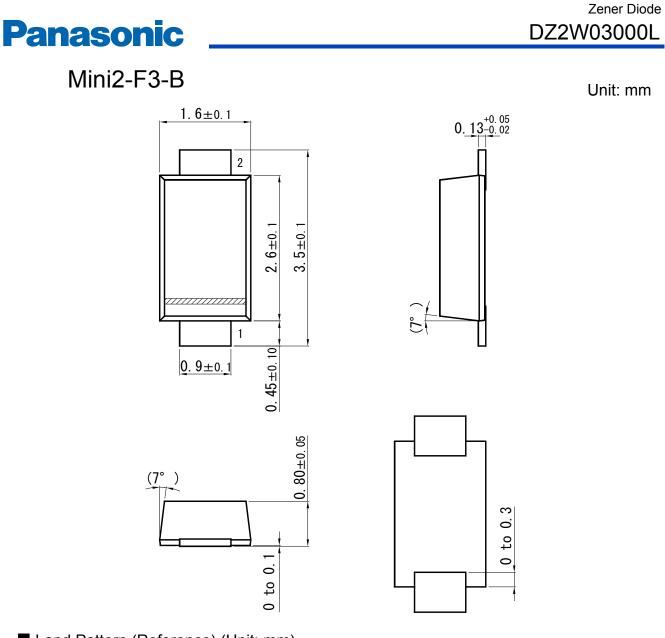
Zener Diode DZ2W03000L

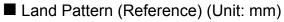
#### Ct - VR Rth - t 1000 (1) Ta = 25 °C Thermal resistance Rth (°C/W) (2) f = 1 MHz 100 (3) Rth(j-l) = 15 °C/W 10 (1) Non-heat sink (2) Mounted on glass epoxy print board.(3) Mounted on alumina print board. Board size : 50 mm × 50 mm x 0.8 mm Solder in : 2 mm x 2 mm 1 0.5 1.5 2 0.001 0.01 0.1 1 10 100 1000 1 Reverse voltage VR (V) Time t (s) PZSM - tw Ta = 25 °C

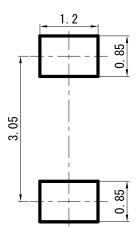
Technical Data (reference)



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