# Panasonic

Zener Diode

# DZ2J220×0L Silicon epitaxial planar type

## For constant voltage / For surge absorption circuit

- 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: CG or CR

#### Packaging

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

■ Absolute Maximum Ratings Ta = 25 °C Parameter Symbol

Repetitive peak forward current	IFRM	200	mA
Total power dissipation <sup>*1</sup>	PT	200	mW
Electrostatic discharge *2	ESD	±8	kV
Junction temperature	Tj	150	С°
Operating ambient temperature	Topr	-40 to +85	°C
Storage temperature	Tstg	-55 to +150	°C

 Note)
 \*1
 Mounted on glass epoxy print board (45 mm × 45 mm × 1 mm)

 Solder in (Recommended land pattern)

\*2 Test method : IEC61000\_4\_2

(C = 150 pF, R = 330  $\Omega$ , Contact discharge : 10 times )

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

$\blacksquare$ Electrical characteristics Ta = 25 °C ± 3 °C						
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Forward voltage	VF	IF = 10 mA			1.0	V
Zener voltage <sup>*1, *2</sup>	VZ	IZ = 5 mA	20.90		23.10	V
Zener operating resistance	RZ	IZ = 5 mA			80	Ω
Zener rise operating resistance	RZK	IZ = 0.5 mA			100	Ω
Reverse current	IR	VR = 17 V			0.05	μA
Temperature coefficient of zener voltage *3	SZ	IZ = 5 mA		22.2		mV/°C

Rating

Unit

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.

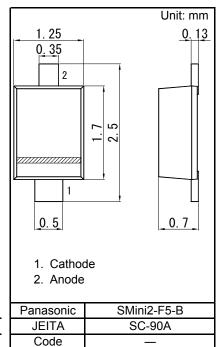
3. \*1 The temperature must be controlled 25 °C for VZ mesurement.

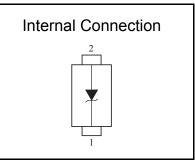
VZ value measured at other temperature must be adjusted to VZ (25 °C).

\*2 VZ guaranted 20 ms after current flow Rank classification

*3	Tj = 25 °C to 150 °C	
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k classification					
Code		М			0
Rank	М		No-rank		
VZ	21.45	to	22.55	20.90	to 23.10
Marking symbol	CR		CG		

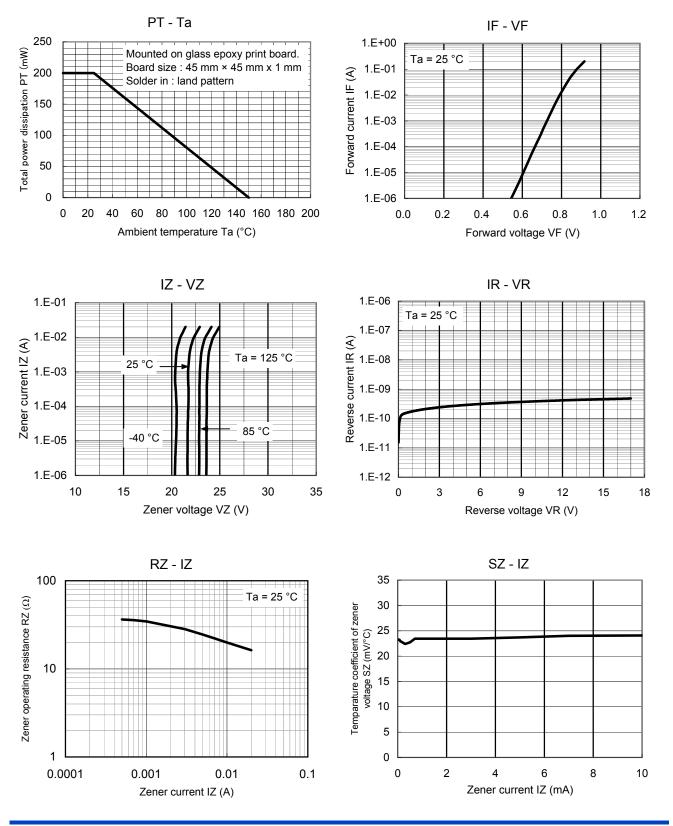






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## Technical Data (reference)



Page 2 of 4

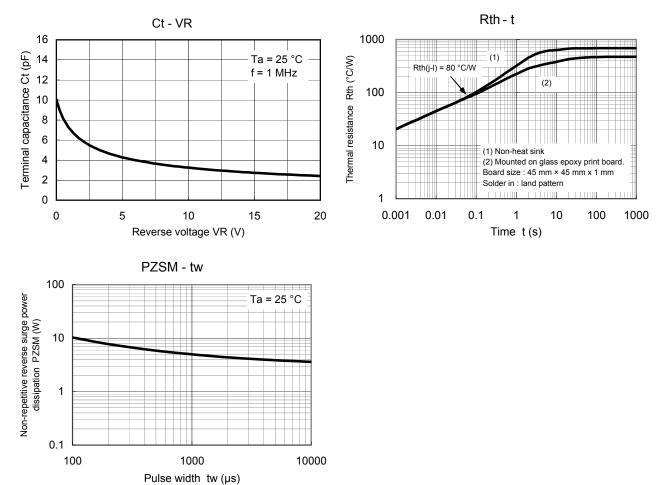
Established : 2009-10-14 Revised : 2013-07-12



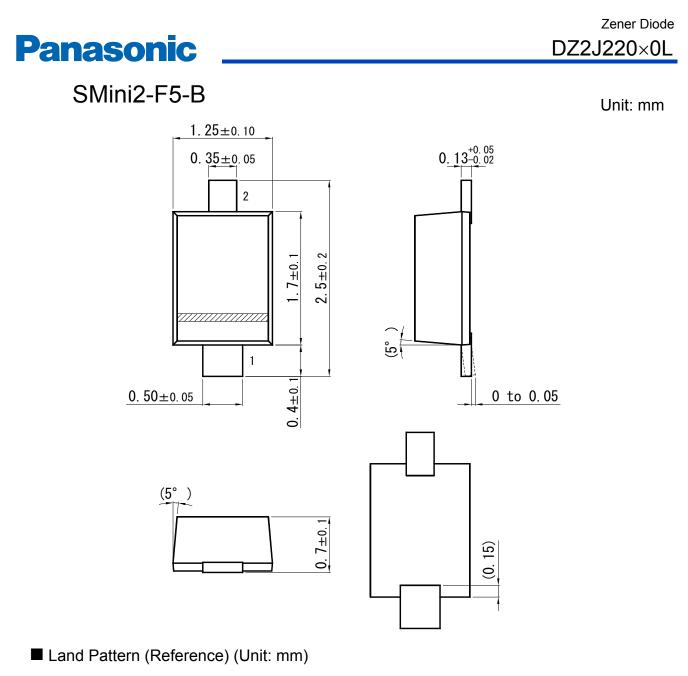
**Panasonic** 

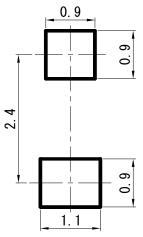






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