

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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**Panasonic**

Zener Diode  
**DZ2J140x0L**

**DZ2J140x0L**

Silicon epitaxial planar type

For constant voltage / For surge absorption circuit

■ 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: TJ or TU

■ Packaging

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

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

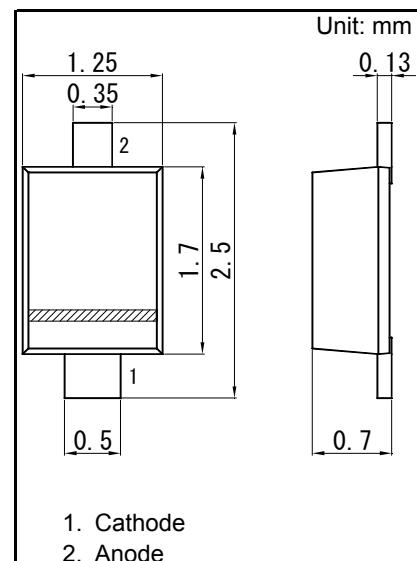
Parameter	Symbol	Rating	Unit
Repetitive peak forward current	IFRM	200	mA
Total power dissipation <sup>*1</sup>	PT	200	mW
Electrostatic discharge <sup>*2</sup>	ESD	$\pm 8$	kV
Junction temperature	T <sub>j</sub>	150	°C
Operating ambient temperature	T <sub>opr</sub>	-40 to +85	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

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

Solder in ( Recommended land pattern )

\*2 Test method : IEC61000\_4\_2

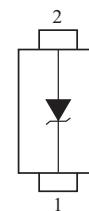
(  $C = 150 \text{ pF}$ ,  $R = 330 \Omega$ , Contact discharge : 10 times )



1. Cathode
2. Anode

Panasonic	SMini2-F5-B
JEITA	SC-90A
Code	—

Internal Connection



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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	VF	IF = 10 mA			1.0	V
Zener voltage <sup>*1, *2</sup>	VZ	$I_Z = 5 \text{ mA}$	13.30		14.70	V
Zener operating resistance	RZ	$I_Z = 5 \text{ mA}$			40	Ω
Zener rise operating resistance	RZK	$I_Z = 0.5 \text{ mA}$			80	Ω
Reverse current	IR	$VR = 10 \text{ V}$			0.05	μA
Temperature coefficient of zener voltage <sup>*3</sup>	SZ	$I_Z = 5 \text{ mA}$		11.6		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  $25^\circ\text{C}$  for VZ measurement.

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

\*2 VZ guaranteed 20 ms after current flow

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

Rank classification

Code	M	0
Rank	M	No-rank
VZ	13.65 to 14.35	13.30 to 14.70
Marking symbol	TU	TJ

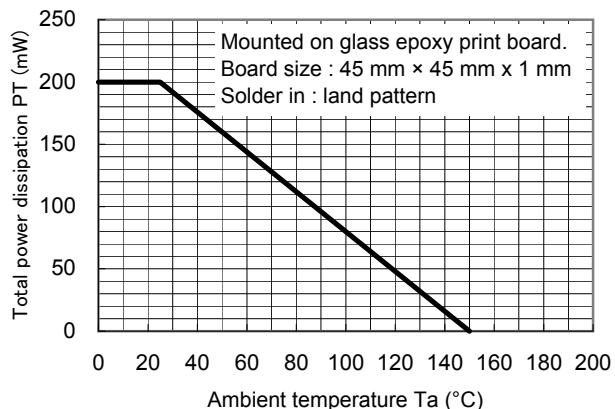


Zener Diode

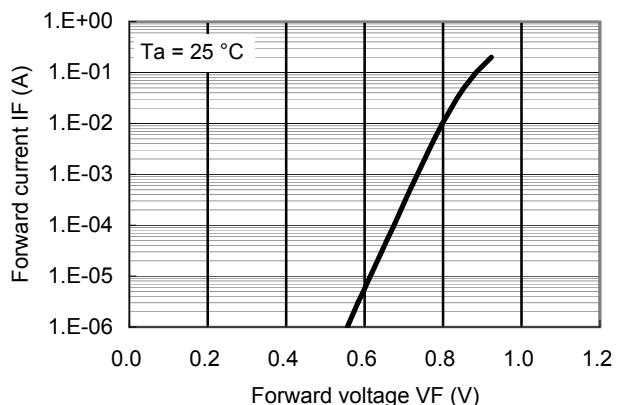
DZ2J140x0L

### Technical Data ( reference )

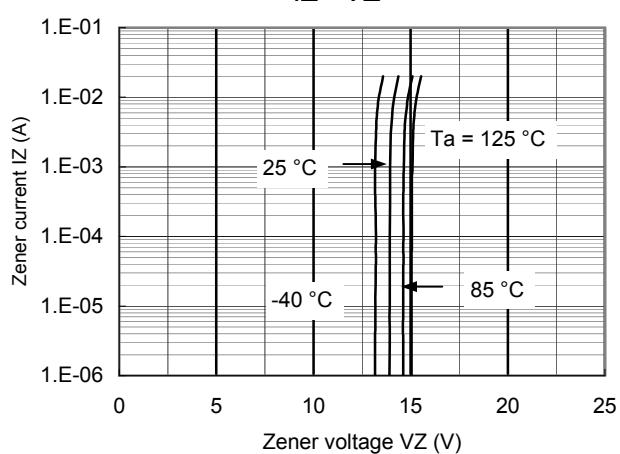
PT - Ta



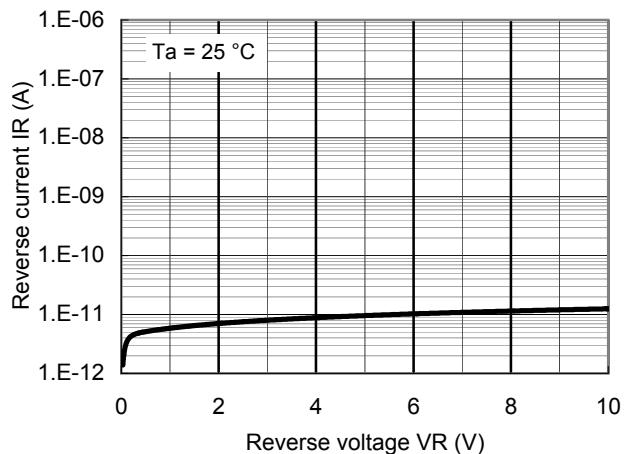
IF - VF



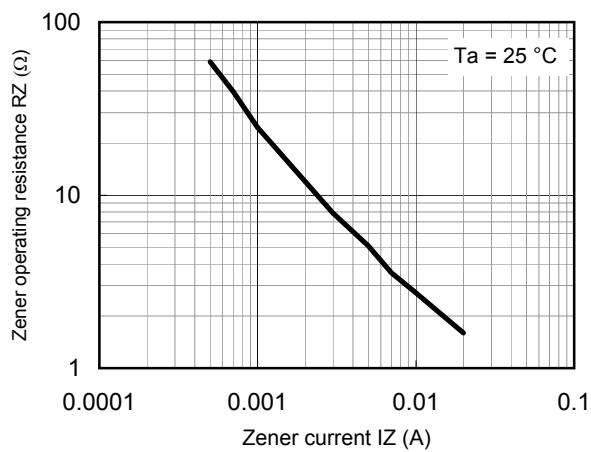
IZ - VZ



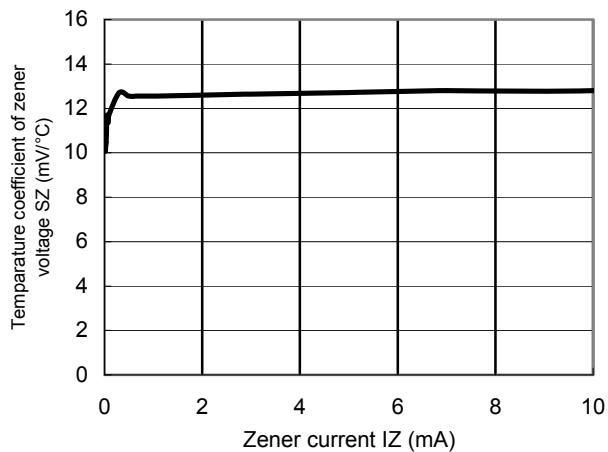
IR - VR



RZ - IZ



SZ - IZ



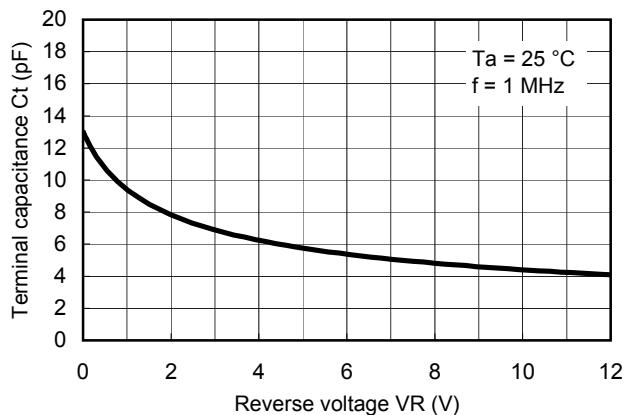
**Panasonic**

Zener Diode

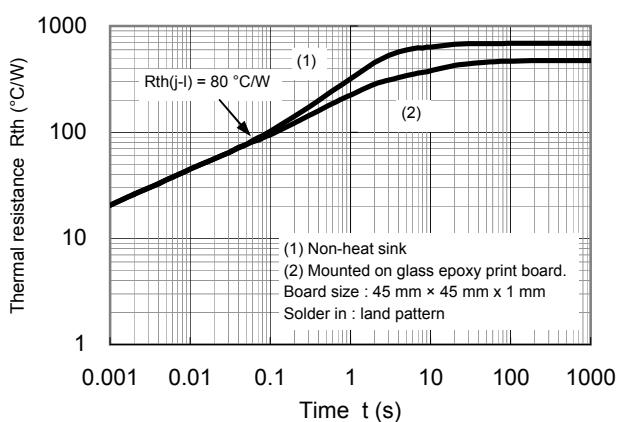
**DZ2J140×0L**

Technical Data ( reference )

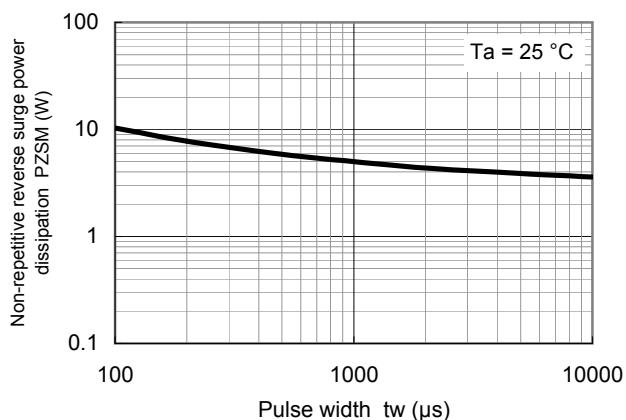
Ct - VR



Rth - t



PZSM - tw

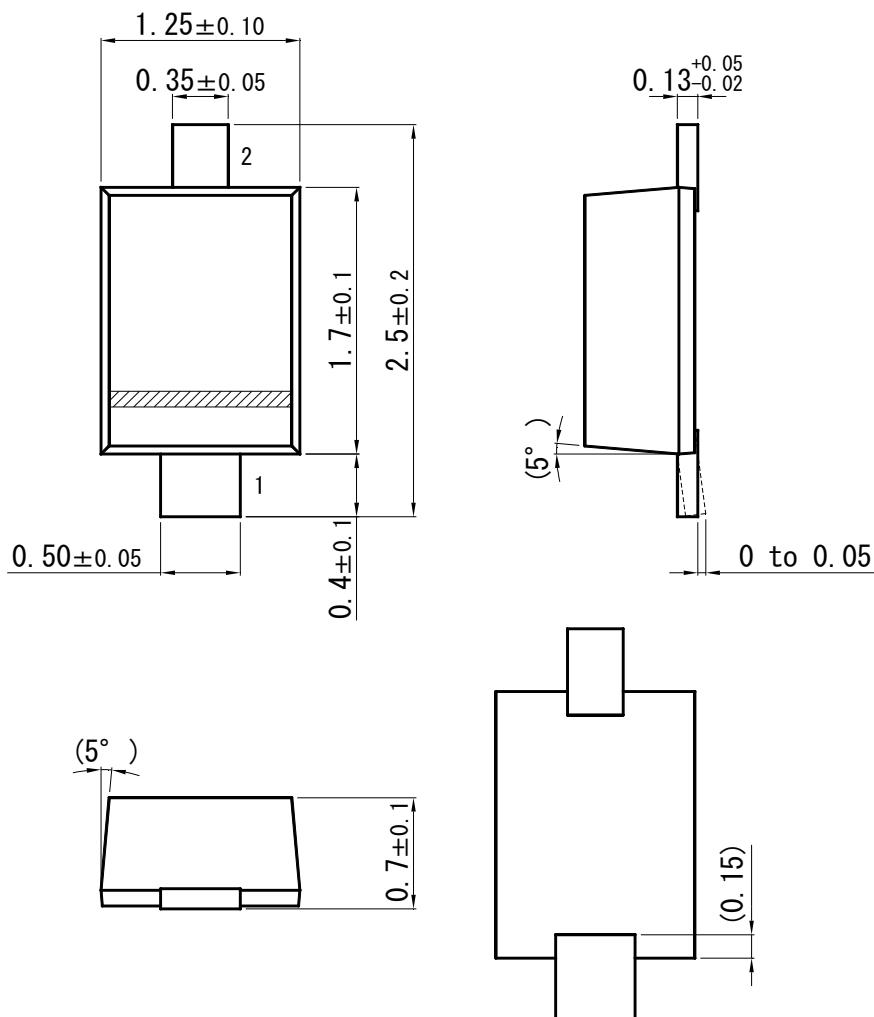


**Panasonic**

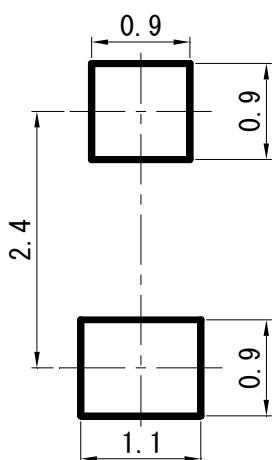
Zener Diode  
**DZ2J140×0L**

**SMini2-F5-B**

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



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