# Panasonic

Zener Diode DZ2S120×0L

## DZ2S120×0L Silicon epitaxial planar type

## For constant voltage / For surge absorption circuit DZ2J120 in SSMini2 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: RJ or RU

#### 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	200	mA			
Total power dissipation *1	PT	150	mW			
Electrostatic discharge *2	ESD	±8	kV			
Junction temperature	Tj	150	О°			
Operating ambient temperature	Topr	-40 to +85	О°			
Storage temperature	Tstg	-55 to +150	°C			

Note) \*1 Mounted on glass epoxy print board ( 45 mm × 45 mm × 1 mm ) Solder in ( 0.8 mm × 0.6 mm )

\*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 Typ		Max	Unit
Forward voltage	VF	IF = 10 mA			1.0	V
Zener voltage <sup>*1, *2</sup>	VZ	IZ = 5 mA	11.40		12.60	V
Zener operating resistance	RZ	IZ = 5 mA			30	Ω
Zener rise operating resistance	RZK	IZ = 0.5 mA			80	Ω
Reverse current	IR	VR = 9 V			0.05	μA
Temperature coefficient of zener voltage *3	SZ	IZ = 5 mA		9.3		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.

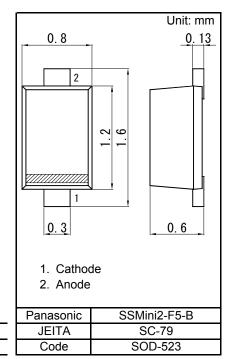
3. \*1 The temperature must be controlled 25  $^\circ\text{C}$  for VZ mesurement.

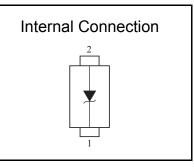
VZ value measured at other temperature must be adjusted to VZ (25 °C).

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

*3 Tj = 25 °C to 150 °C	
-------------------------	--

classification						
Code	М		0			
Rank	М		No-rank			
VZ	11.73	to	12.33	11.40	to	12.60
Marking symbol	RU		RJ			

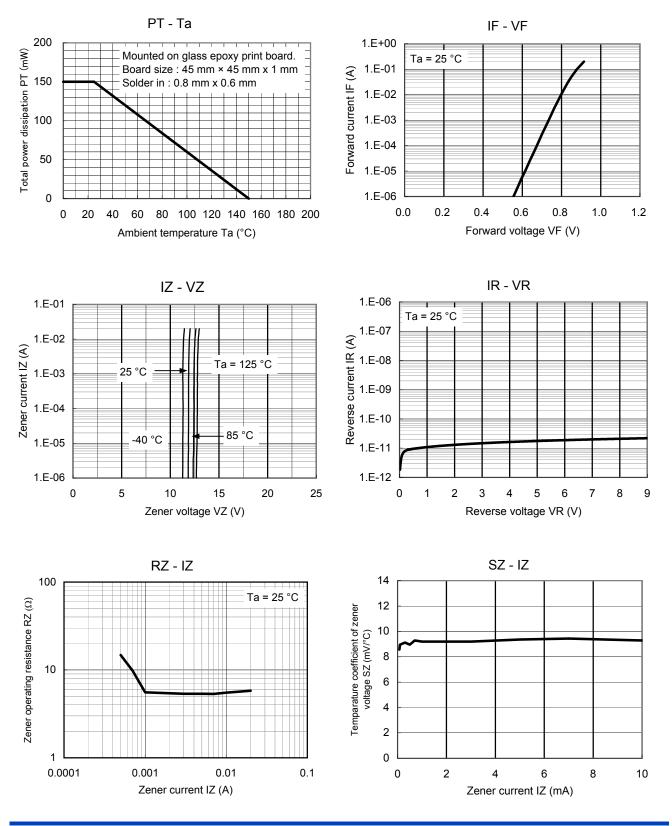






Zener Diode DZ2S120×0L

### Technical Data (reference)



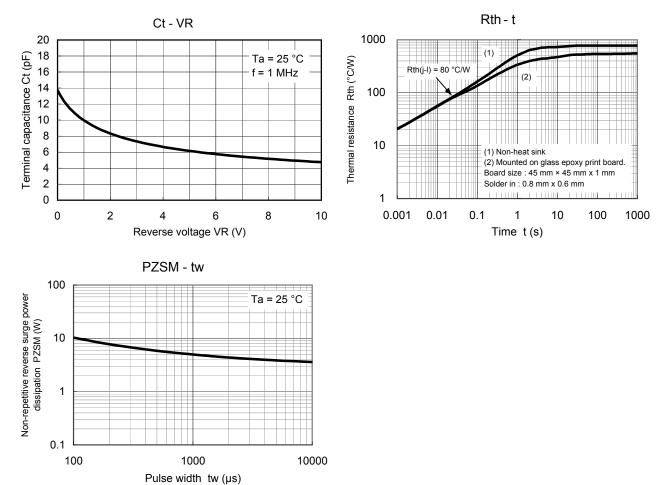
Established : 2009-11-10 Revised : 2013-07-23

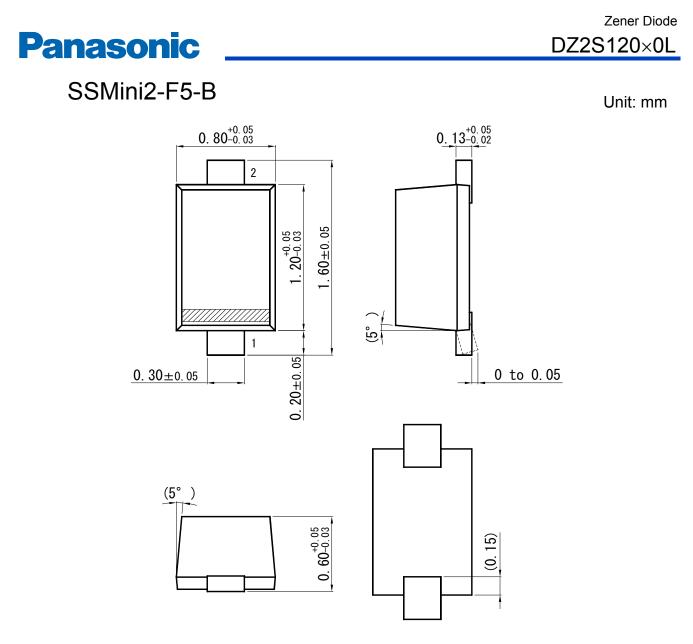




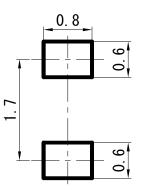
Zener Diode DZ2S120×0L







Land Pattern (Reference) (Unit: mm)



### Request for your special attention and precautions in using the technical information and semiconductors described in this book

- (1) If any of the products or technical information described in this book is to be exported or provided to non-residents, the laws and regulations of the exporting country, especially, those with regard to security export control, must be observed.
- (2) The technical information described in this book is intended only to show the main characteristics and application circuit examples of the products. No license is granted in and to any intellectual property right or other right owned by Panasonic Corporation or any other company. Therefore, no responsibility is assumed by our company as to the infringement upon any such right owned by any other company which may arise as a result of the use of technical information de-scribed in this book.
- (3) The products described in this book are intended to be used for general applications (such as office equipment, communications equipment, measuring instruments and household appliances), or for specific applications as expressly stated in this book.

Please consult with our sales staff in advance for information on the following applications, moreover please exchange documents separately on terms of use etc.: Special applications (such as for in-vehicle equipment, airplanes, aerospace, automotive equipment, traffic signaling equipment, combustion equipment, medical equipment and safety devices) in which exceptional quality and reliability are required, or if the failure or malfunction of the products may directly jeopardize life or harm the human body.

Unless exchanging documents on terms of use etc. in advance, it is to be understood that our company shall not be held responsible for any damage incurred as a result of or in connection with your using the products described in this book for any special application.

- (4) The products and product specifications described in this book are subject to change without notice for modification and/or improvement. At the final stage of your design, purchasing, or use of the products, therefore, ask for the most upto-date Product Standards in advance to make sure that the latest specifications satisfy your requirements.
- (5) When designing your equipment, comply with the range of absolute maximum rating and the guaranteed operating conditions (operating power supply voltage and operating environment etc.). Especially, please be careful not to exceed the range of absolute maximum rating on the transient state, such as power-on, power-off and mode-switching. Otherwise, we will not be liable for any defect which may arise later in your equipment. Even when the products are used within the guaranteed values, take into the consideration of incidence of break down and failure mode, possible to occur to semiconductor products. Measures on the systems such as redundant design, arresting the spread of fire or preventing glitch are recommended in order to prevent physical injury, fire, social damages, for example, by using the products.
- (6) Comply with the instructions for use in order to prevent breakdown and characteristics change due to external factors (ESD, EOS, thermal stress and mechanical stress) at the time of handling, mounting or at customer's process. We do not guarantee quality for disassembled products or the product re-mounted after removing from the mounting board. When using products for which damp-proof packing is required, satisfy the conditions, such as shelf life and the elapsed time since first opening the packages.
- (7) When reselling products described in this book to other companies without our permission and receiving any claim of request from the resale destination, please understand that customers will bear the burden.
- (8) This book may be not reprinted or reproduced whether wholly or partially, without the prior written permission of our company.

## **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Zener Diodes category:

Click to view products by Panasonic manufacturer:

Other Similar products are found below :

 RKZ13B2KG#P1
 DL5234B
 1N4682
 1N4691
 1N4693
 1N4732A
 1N4733A-TR
 1N4736A
 1N4750A
 1N4759ARL
 1N5241B
 1N5365B

 1N5369B
 1N747A
 1N959B
 1N964B
 1N966B
 1N972B
 NTE5116A
 NTE5121A
 NTE5147A
 NTE5152A
 NTE5155A

 NTE5164A
 JANS1N4974US
 1N4692
 1N4700
 1N4702
 1N4704
 1N4711
 1N4737A
 1N4745ARL
 1N4752A
 1N4752ARL

 1N4760ARL
 1N5221B
 1N5236B
 1N5241BTR
 1N5242BTR
 1N5350B
 1N5352B
 1N961BRR1
 1N964BRL
 RKZ5.1BKU#P6

 3SMAJ5950B-TP
 3SMBJ5925B-TP
 TDZTR24
 441774C
 1N474C
 1N4745ARL
 1N4752A
 1N4745ARL