Zener Diode

DZ2S300×0L

# **Panasonic**

### DZ2S300×0L

### Silicon epitaxial planar type

For constant voltage / For surge absorption circuit DZ2J300 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: GG or GR

### ■ Packaging

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

■ Absolute Maximum Ratings Ta = 25 °C

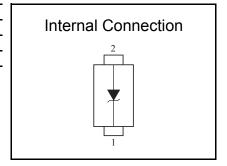
| Parameter                       | Symbol | Rating      | Unit |
|---------------------------------|--------|-------------|------|
| Repetitive peak forward current | IFRM   | 200         | mA   |
| Total power dissipation *1      | PT     | 150         | mW   |
| Electrostatic discharge *2      | ESD    | ±8          | kV   |
| Junction temperature            | Tj     | 150         | °C   |
| Operating ambient temperature   | Topr   | -40 to +85  | °C   |
| Storage temperature             | Tstg   | -55 to +150 | °C   |

Note) \*1 Mounted on glass epoxy print board (  $45 \text{ mm} \times 45 \text{ mm} \times 1 \text{ mm}$  ) Solder in (  $0.8 \text{ mm} \times 0.6 \text{ mm}$  )

\*2 Test method : IEC61000\_4\_2

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

# Unit: mm 0.8 0.13 2 0.6 1. Cathode 2. Anode Panasonic SSMini2-F5-B JEITA SC-79 Code SOD-523



### ■ 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 *1, *2                        | VZ     | IZ = 2 mA   | 28.50 |      | 31.50 | V     |
| Zener operating resistance                  | RZ     | IZ = 2 mA   |       |      | 160   | Ω     |
| Zener rise operating resistance             | RZK    | IZ = 0.5 mA |       |      | 160   | Ω     |
| Reverse current                             | IR     | VR = 23 V   |       |      | 0.05  | μΑ    |
| Temperature coefficient of zener voltage *3 | SZ     | IZ = 2 mA   |       | 28.7 |       | 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

Rank classification

| Code           | M     |    |       | 0       |    |       |
|----------------|-------|----|-------|---------|----|-------|
| Rank           | M     |    |       | No-rank |    |       |
| VZ             | 29.30 | to | 30.80 | 28.50   | to | 31.50 |
| Marking symbol | GR    |    |       | GG      |    |       |

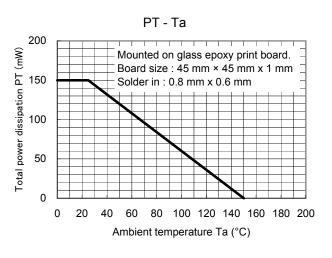
Page 1 of 4

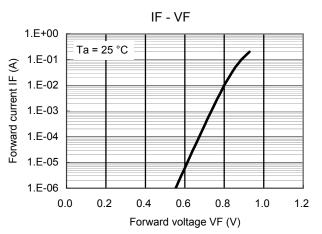
**Panasonic** 

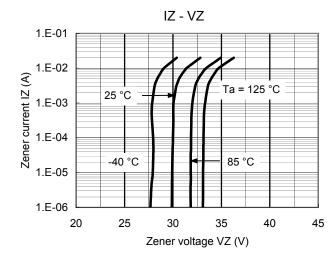
Zener Diode

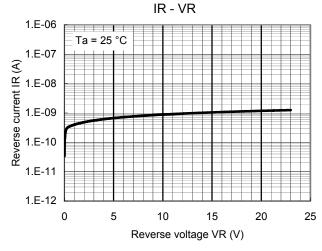
DZ2S300×0L

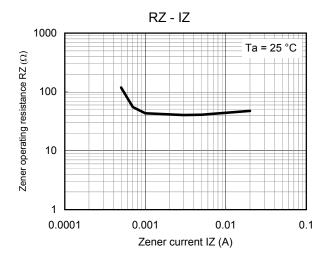
### Technical Data (reference)

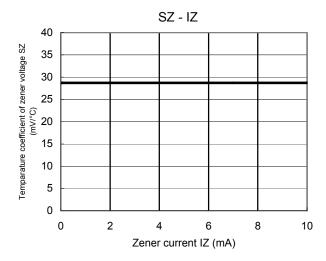












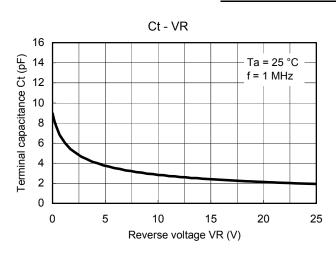
**Panasonic** 

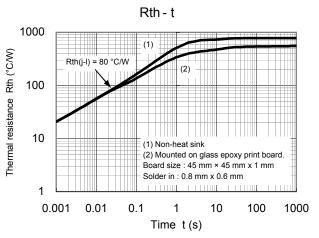
Revision. 3

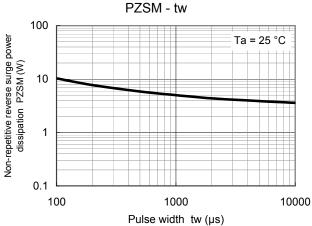
Zener Diode

### DZ2S300×0L

## Technical Data (reference)







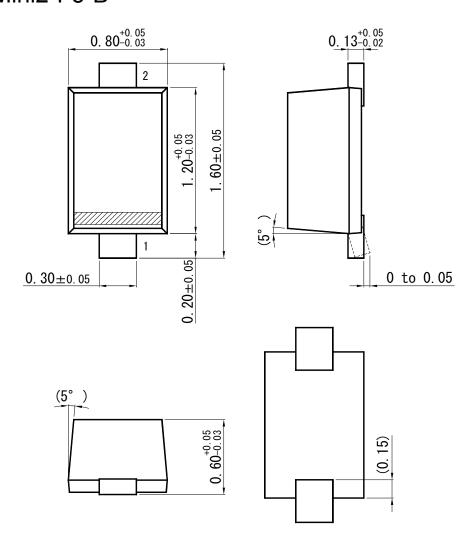
**Panasonic** 

Zener Diode

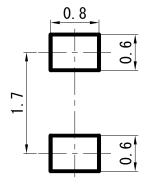
DZ2S300×0L

# SSMini2-F5-B

Unit: mm



■ 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 EDZTE6113B 1N4682 1N4691 1N4693 1N4732A 1N4733A-TR 1N4736A 1N4750A 1N4759ARL 1N5241B

1N5365B 1N5369B 1N747A 1N959B 1N964B 1N966B 1N972B NTE149A NTE5116A NTE5121A NTE5147A NTE5152A NTE5155A

NTE5164A JANS1N4974US 1N4692 1N4700 1N4702 1N4704 1N4711 1N4714 1N4737A 1N4745ARL 1N4752A 1N4752ARL

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

3SMAJ5950B-TP 3SMBJ5925B-TP TDZTR24