

# DZ3S120D

## Silicon epitaxial planar type

For surge absorption circuits

DZ3X120D in SSMINI3 type package

### ■ Features

- Excellent rising characteristics of zener current  $I_Z$
- Low zener operating resistance  $R_Z$
- Contributes to miniaturization of sets, reduction of component count.
- Eco-friendly Halogen-free package

### ■ Packaging

Embossed type (Thermo-compression sealing): 3000 pcs / reel (standard)

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

Parameter	Symbol	Rating	Unit
Total power dissipation *	$P_T$	150	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{\text{stg}}$	-55 to +150	$^\circ\text{C}$

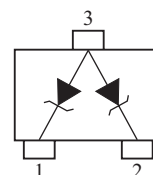
Note) \*:  $P_T = 150$  mW achieved with a printed circuit board.

### ■ Package

- Code  
SSMini3-F3-B
- Pin Name  
1: Cathode-1  
2: Cathode-2  
3: Anode-1, 2

### ■ Marking Symbol: 05

### ■ Internal Connection



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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	$V_F$	$I_F = 10$ mA			1.0	V
Zener voltage *1,2	$V_Z$	$I_Z = 5$ mA	11.4		12.6	V
Zener operating resistance	$R_Z$	$I_Z = 5$ mA			30	$\Omega$
Zener rise operating resistance	$R_{ZK}$	$I_Z = 0.5$ mA			80	$\Omega$
Reverse current	$I_R$	$V_R = 9$ V			0.05	$\mu\text{A}$
Temperature coefficient of zener voltage *3	$S_Z$	$I_Z = 5$ mA		8.5		mV/ $^\circ\text{C}$

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.

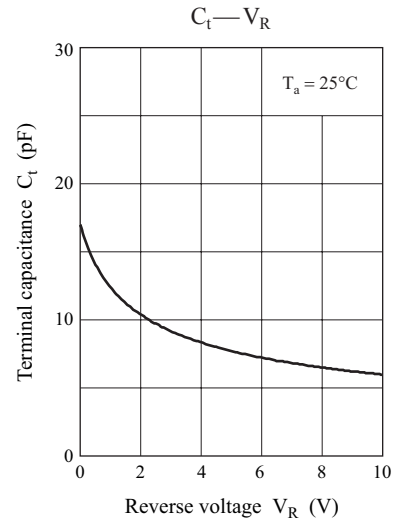
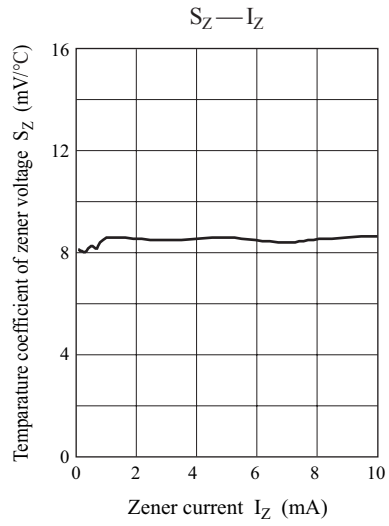
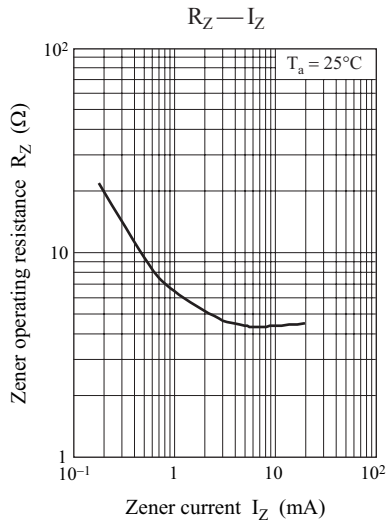
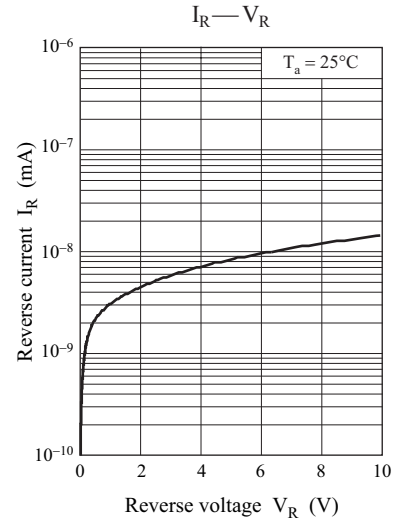
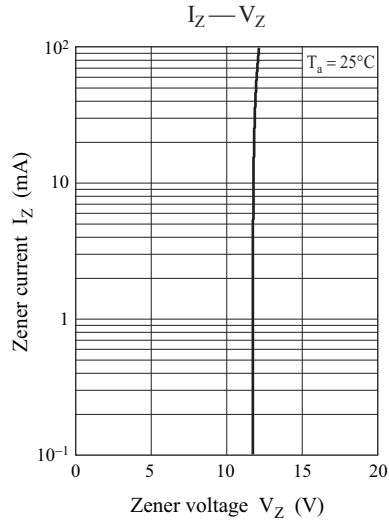
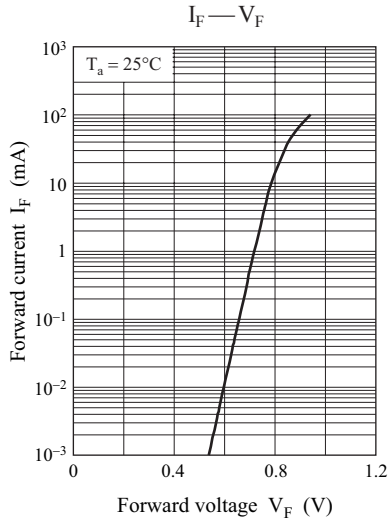
2. Electrostatic breakdown voltage:  $\pm 10$  kV

Test method: IEC61000-4-2 (C = 150 pF, R = 330  $\Omega$ , Contact discharge: 10 times)

3. \*1: The temperature must be controlled  $25^\circ\text{C}$  for  $V_Z$  measurement.  $V_Z$  value measured at other temperature must be adjusted to  $V_Z (25^\circ\text{C})$

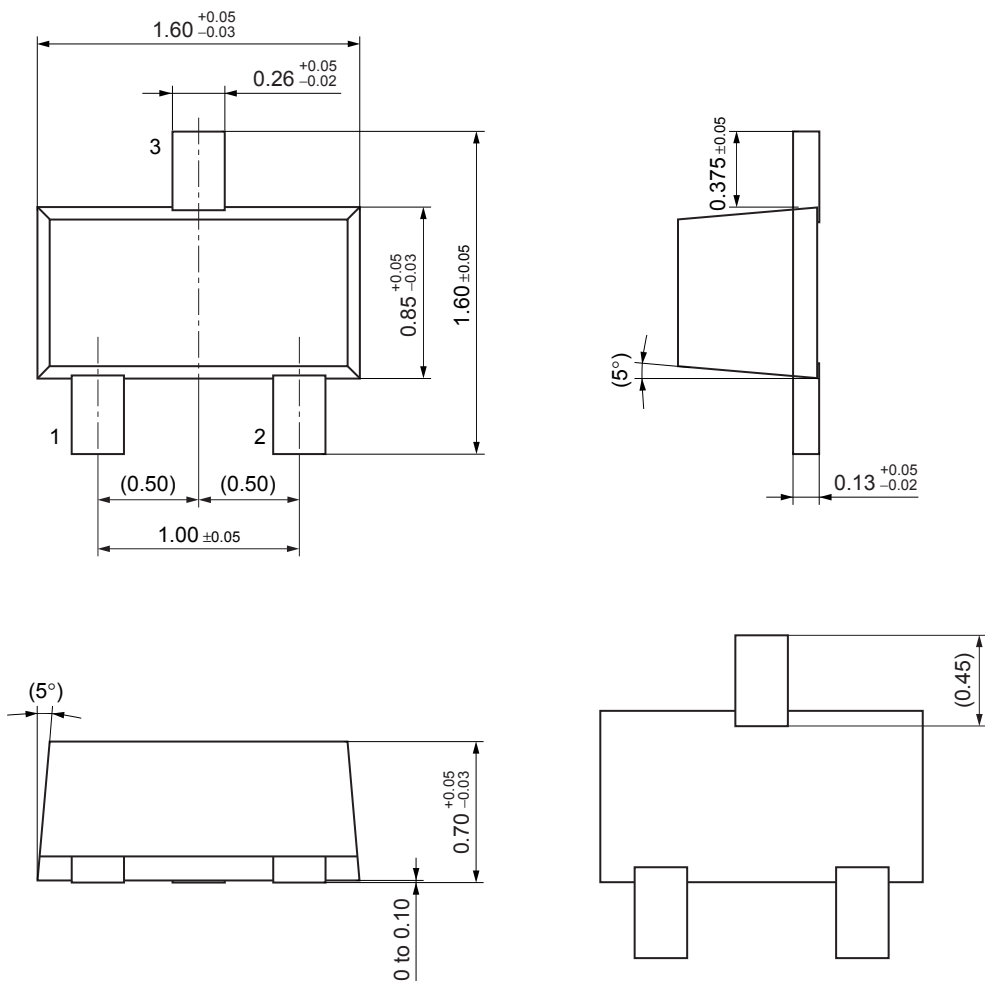
\*2:  $V_Z$  guaranteed 20 ms after current flow.

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



SSMini3-F3-B

Unit: mm



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