

DZ3X120D0L

Silicon epitaxial planar type

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:05

■ Packaging

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

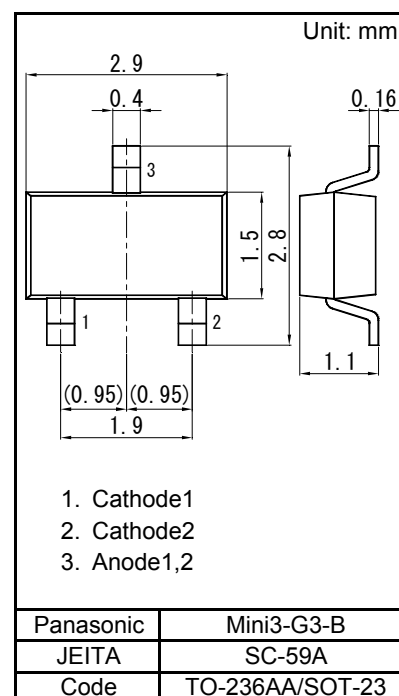
■ Absolute Maximum Ratings $T_a = 25\text{ }^{\circ}\text{C}$

Parameter	Symbol	Rating	Unit
Total power dissipation ^{*1}	PT	200	mW
Electrostatic discharge ^{*2}	ESD	±10	kV
Junction temperature	T_j	150	$^{\circ}\text{C}$
Operating ambient temperature	T_{opr}	-40 to +85	$^{\circ}\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^{\circ}\text{C}$

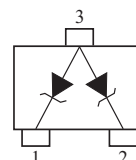
Note) *1: Mounted on glass epoxy print board. (45 mm x 45 mm x 1 mm)

(2 Diode total)

Solder in (1.0 mm x 1.0 mm)

*2: Test method:IEC61000_4_2(C = 150 pF,R = 330 Ω , Contact discharge:10 times)

Internal Connection

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

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	Ω
Zener rise operating resistance	R _{ZK}	I _Z = 0.5 mA			80	Ω
Reverse current	I _R	V _R = 9 V			0.05	μA
Temperature coefficient of zener voltage ^{*3}	SZ	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. *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 $^{\circ}\text{C}$