

## Zener Diode DE2S03900L

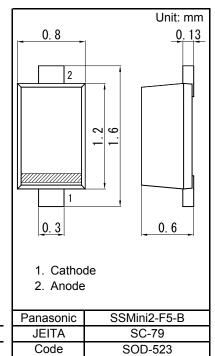
DE2S03900L Silicon epitaxial planar type

For ESD protection

- Features
- High ESD
- Halogen-free / RoHS compliant (EU RoHS / UL-94 V-0 / MSL:Level 1 compliant)
- Marking Symbol:7C

Packaging

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



Internal Connection				

■ Absolute Maximum Ratings Ta = 25 °C							
Parameter	Symbol	Rating	Unit				
Total power dissipation <sup>*1</sup>	PT	150	mW				
Electrostatic discharge *2	ESD	±30	kV				
Junction temperature	Tj	150	°C				
Operating ambient temperature	Topr	-40 to +85	°C				
Storage temperature	Tstg	-55 to +150	°C				

 Storage temperature
 Tstg
 -55 to +150

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

\*2: Test method:IEC61000\_4\_2(C = 150 pF,R = 330 Ω, Contact discharge:10 times)

Electrical Characteristics	Ta = 25 °C	C ± 3 °C

Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Zener voltage *1,*2	VZ	IZ = 1 mA	3.71		4.10	V
Reverse current	IR	VR = 1 V			10.0	μA
Terminal capacitance	Ct	VR = 0 V, f = 1 MHz		94		pF
Temperature coefficient of zener voltage *3	SZ	IZ = 1 mA		-2.2		mV/°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°C for VZ mesurement.

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

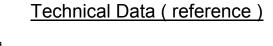
\*2: VZ guaranted 20 ms after current flow.

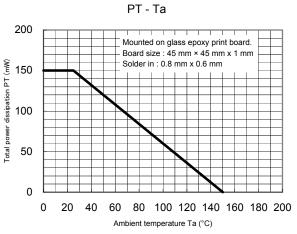
\*3: Tj = 25°C to 150°C

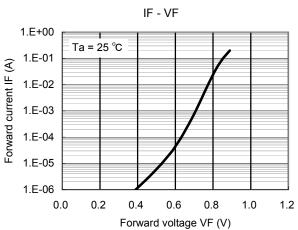
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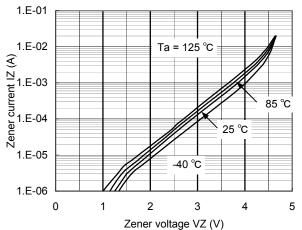
Zener Diode DE2S03900L



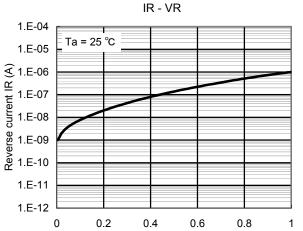


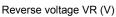


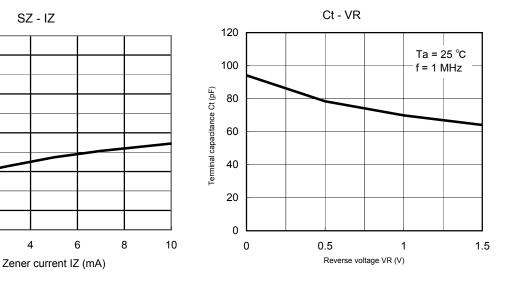




SZ - IZ







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## Established : 2012-10-24 Revised : 2013-11-01

5

3

1

-1

-3

-5

0

2

4

Temparature coefficient of zener voltage SZ (mV/°C)

**Panasonic** DE2S03900L Technical Data (reference) Rth - t PZSM - tw 1000 1000 (1) Ta = 25 °C Non-repetitive reverse surge power dissipation PZSM (W) Thermal resistance Rth (°C/W) Rth(j-l) = 80 °C/W (2) 100 100 10 10 (1) Non-heat sink 1 (2) Mounted on glass epoxy print board. Board size : 45 mm × 45 mm x 1 mm Solder in : 0.8 mm x 0.6 mm 0.1 1 0.01 100 1000 10000 100 1000 0.001 0.1 1 10 Time t (s) Pulse width tw (µs)

Revised

Zener Diode



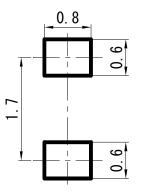
SSMini2-F5-B

Zener Diode DE2S03900L

Unit: mm

## $\begin{array}{c} 0.80^{+0.05}_{-0.03} \\ \hline 0.80^{-0.05}_{-0.03} \\ \hline 0.30\pm 0.05 \\ \hline 0.30\pm 0.05 \\ \hline 0.05 \\ \hline 0.000 \\ \hline$

Land Pattern (Reference) (Unit: mm)



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