

### ESD5Z2V5 THRU ESD5Z15

PowerDissipation 0.15 W  
VOLTAGE 2.5 to 15 V

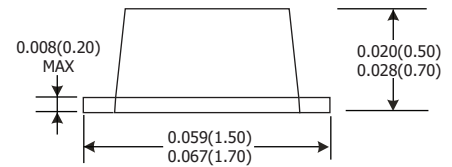
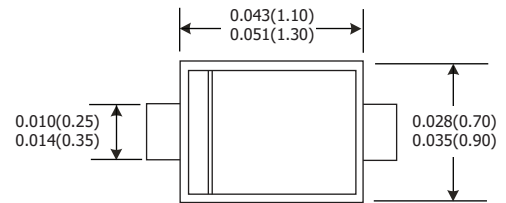
#### Features

- IEC61000-4-2 Level 4 ESD protection
- Protects one directional I/O line
- Low clamping voltage
- Working voltages : 2.5V, 3.3V, 5V, 6V, 7V, 12V, 15V
- Low leakage current

#### Mechanical Data

- SOD-523 package
- Flammability rating : UL 94V-O
- Packaging : Tape and reel
- High temperature soldering guaranteed : 260°C/10s
- Reel size : 7 inch

#### SOD-523



Dimensions in inches and (millimeters)

#### Maximum Ratings And Electrical Characteristics (TA=25°C)

Items	Symbols	Value	Units
ESD per IEC 61000-4-2 (Air)	VESD	±30	kV
ESD per IEC 61000-4-2 (Contact)		±22	
ESD Voltage per human body model	ESD	16	kV
ESD Voltage per machine model		400	V
Total power dissipation on FR-5 board <sup>(1)</sup> @ TA=25°C	P <sub>D</sub>	150	mW
Junction and storage temperature	T <sub>J</sub> , T <sub>STG</sub>	-55 to + 150	°C
Lead solder temperature - Maximum (10 Second duration)	T <sub>L</sub>	260	°C

Part Number	Device Marking	V <sub>RWM</sub> (V)	I <sub>R</sub> (μA)	V <sub>B</sub> (V)	I <sub>T</sub> (mA)	V <sub>c</sub> (V)		V <sub>c</sub> (V)		P <sub>PK</sub> (W)	C <sub>J</sub> (pF)
		(Max.)	(Max.)	(Min.)		(Max.)	(@A)	(Max.)	(@A)	(Max.)	(Max.)
ESD5Z2V5	ZD + code	2.5	6.00	4.0	1	9.0	5.0	11.5	9.0	104	145
ESD5Z3V3	ZE + code	3.3	0.90	5.0	1	10.0	5.0	14.0	7.5	105	105
ESD5Z5V0	ZF + code	5.0	0.08	6.2	1	11.6	5.0	15.0	7.0	105	80
ESD5Z6V0	ZG + code	6.0	0.05	6.8	1	13.5	5.0	17.5	6.0	105	70
ESD5Z7V0	ZH + code	7.0	0.03	7.5	1	14.0	5.0	18.0	6.0	108	65
ESD5Z12	ZM + code	12.0	0.03	14.1	1	20.0	1.0	26.0	4.0	104	45
ESD5Z15	ZN + code	15.0	0.50	16.0	1	23.0	1.0	30.0	4.0	120	28

These ratings are limiting values above which the serviceability of the diode may be impaired

Note : (1) FR-5=1.0 x 0.75 x 0.62 in

## RATINGS AND CHARACTERISTIC CURVES ESD5Z2V5 THRU ESD5Z15

FIG.1-8/20 $\mu$ s WAVEFORM PER IEC61000-4-5

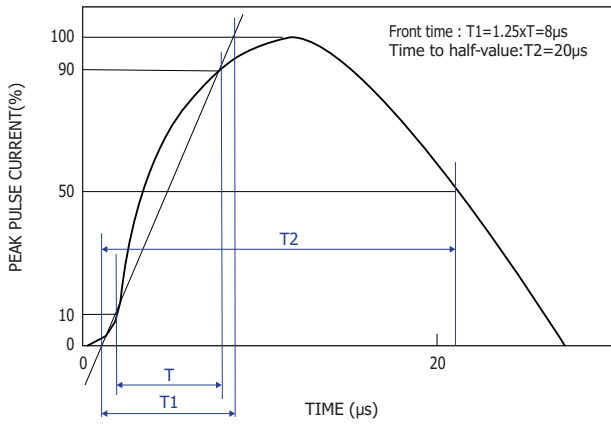


FIG.2-CONTACT DISCHARGE CURRENT WAVEFORM PER IEC 61000-4-2

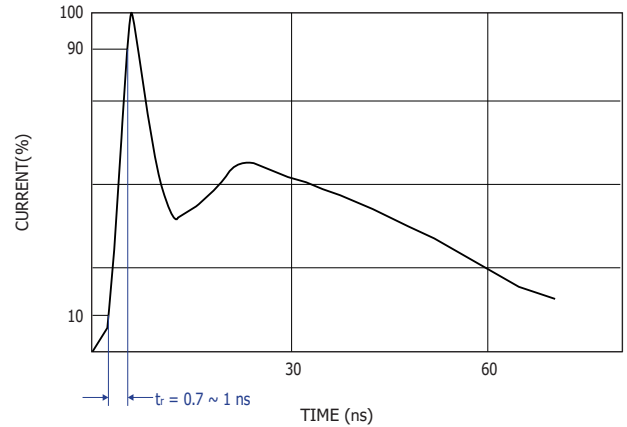


FIG.3-VOLTAGE VS CAPACITANCE

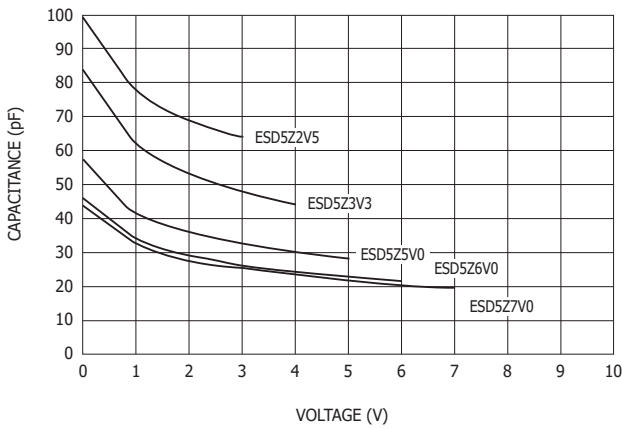


FIG.4-VOLTAGE VS CAPACITANCE

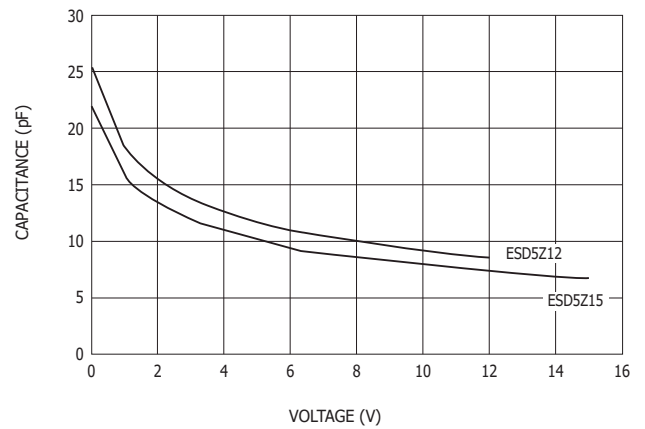


FIG.5-CLAMPING VOLTAGE VS PEAK PULSE CURRENT

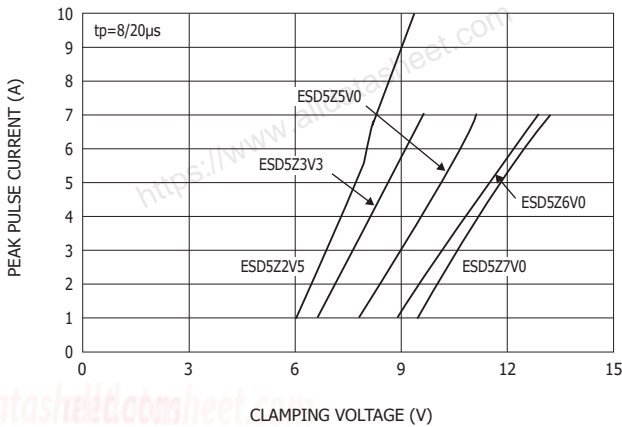


FIG.6-CLAMPING VOLTAGE VS PEAK PULSE CURRENT

