

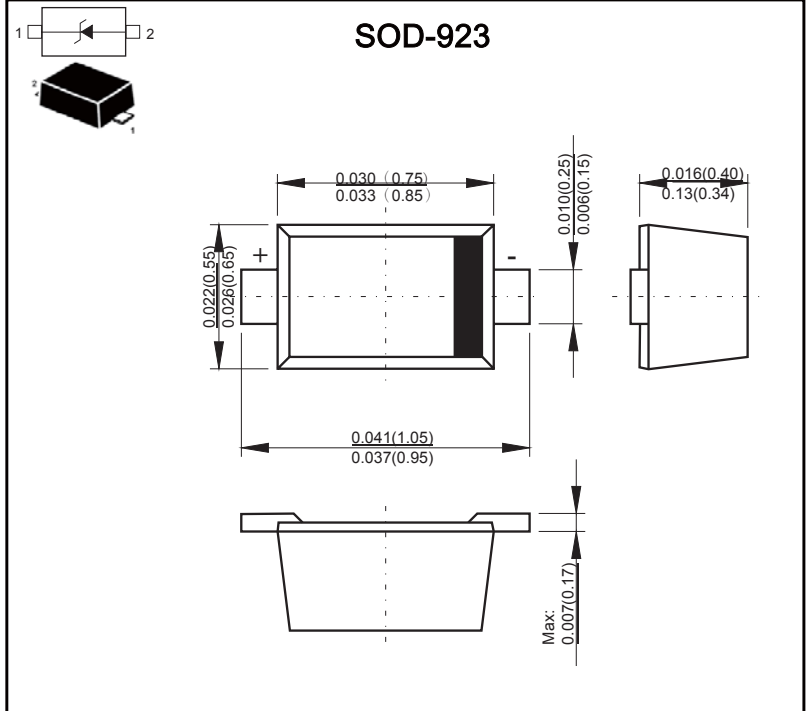
## Electrostatic discharge Protection Devices(ESD)

### FEATURES

- Reverse working(Stand-off) voltages:3.3V-12V
- Low leakage.
- Response time is typically<1ns.
- ESD Rating of Class 3(>16kV) per Human Body Model.
- IEC61000-4-2Level 4 ESD Protection.

### APPLICATIONS

- Designed to protect voltage sensitive components from ESD and transient.
- Bi-directional micro-packaged diodes for ESD protection.
- Case style:SOD-923molded plastic



## MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Rating	Symbol	Value	Unit
IEC 61000-4-2 (ESD)	Air Contact	±15	kV
	Contact discharge	±8	kV
ESD Voltage	Per Human Body Model	16	kV
Total Power Dissipation on FR-5 Board (Note 1) @ T <sub>A</sub> =25°C	PD	150	Mw
Junction and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to 150	°C
Lead solder temperature range (10 Second Duration)	TL	260	°C

NOTE1. FR-5 = 1.0\*0.75\*0.62 in.

## RATINGS AND CHARACTERISTIC CURVES

ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$  unless otherwise noted,  $V_F=0.9\text{V}$  Max. @  $I_F=10\text{Ma}$  for all types)

Device	Marking	$V_{RWM}$ (V)	$I_R$ ( $\mu\text{A}$ ) @ $V_{RWM}$	$V_{BR}$ (V) @ $I_T$ (Note 2)	$I_T$ (mA)	$I_{PP}$ (A) (Note 3)	$V_C$ (V) @ Max $I_{PP}$ (Note 3)	$P_{PK}$ (W) (8*20 $\mu\text{s}$ )	C (pF)
		Max	Max	Min		Max	Max	Typ	Typ
ESD9D3V3	E	3.3	2.5	5.0	1.0	9.8	10.1	102	80
ESD9D5V0	H	5.0	1.0	6.2	1.0	8.7	12.3	107	65
ESD9D12V	H	12	1.0	13.5	1.0	5.9	23.7	140	30
ESD9D5V0C	C	5.0	0.5	5.6	1.0	11.6	18.6	174	15
ESD9D3V3C	P	3.3	1.0	5.0	1.0	8.4	14.1	158	25

1. Other voltage available upon request.
2.  $V_{BR}$  is measured with a pulse test current  $I_T$  at an ambient temperature of  $25^\circ\text{C}$
3. Surge current waveform per Figure 3.

## PACKAGE INFORMATION

Device	Package	Shipping
ESD9D3V3 --- ESD9D12V	SOD-923	8000/Tape&Reel

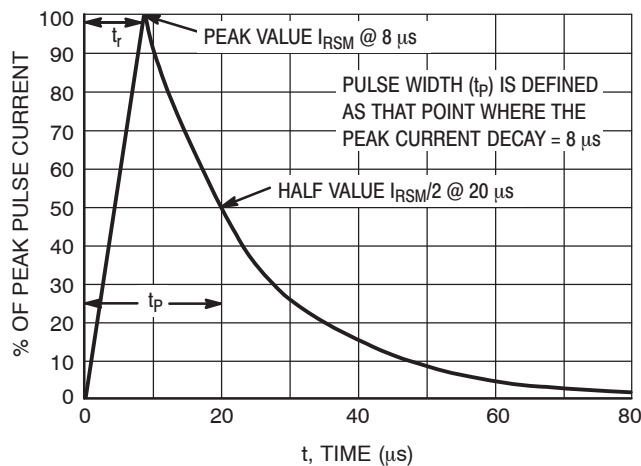


Figure 1. 8 x 20  $\mu\text{s}$  Pulse Waveform