Transient Voltage Suppressor

Features

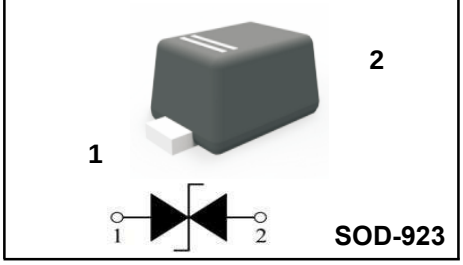
- ♦80Watts peak pulse power tp =8/20us)
- ♦Bidirectional configurations
- ♦Solid-state silicon-avalanchetechnology
- ♦Low clamping volta
- ♦Low leakage current
- ♦IEC 61000-4-2 ±30KV contact ±30KV Air
- ♦IEC 61000-4-4 (EFT) 40A (5/50us)
- ♦IEC 61000-4-5 (Lightning 8/20μs): 8A

Application

- ♦Microprocessor based equipm
- ♦Personal Digital Assistants (PDA'S)
- ♦Notebooks, Desktops, and Servers
- ♦Portable Instrumentat
- ♦Pagers Peripher

Pinning

1.Cathode	2.Anode



Marking Code	
ESD5VFBD923	C

Limiting Values(TA = 25 °C, unless otherwise specified)

Symbol	Parameter	Conditions	value	Unit
V_{ESD}	Electrostatic Discharge Voltage	IEC 61000-4-2; Contact Discharge	±30	kV
		IEC 61000-4-2; Air Discharge	±30	kV
P_{PP}	Peak Pulse Power	tP = 8/20 μs	80	W
I_{PPM}	Rated Peak Pulse Current	tP = 8/20 μs	8	A
T_L	Lead Soldering Temperature	-	260(10seconds)	℃
T_J	Junction Temperature	-	-55 to+150	℃
Tstg	Storage Temperature Range	-	-55 to+150	℃

Electrical Characteristics(TA = 25 °C unless otherwise specified

Symbol	Parameter	Conditions	Min	Typ.	Max	Unit
V_{RWM}	Reverse Working Voltage	TA = 25 °C	-	-	5.0	V
V_{BR}	Breakdown Voltage	IT = 1mA	5.6	-	-	V
I_R	Reverse Leakage Current	VRWM = 5 V; TA = 25 °C	-	-	100	nA
V_C	Clamping Voltage	IPP=8A, tP =8/20μs	-	-	10	V
CJ	Junction Capacitance	VR = 0V, f = 1 MHz	-	15	-	pF

Typical Characteristics

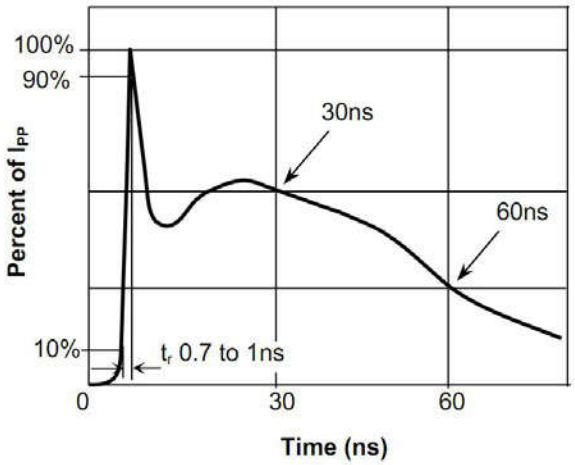


Fig.1 Pulse Waveform-ESD (IEC61000-4-2)

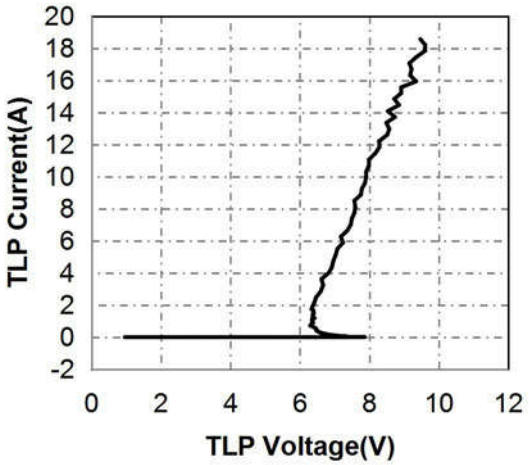


Fig.2 Transmission Line Pulse (TLP)

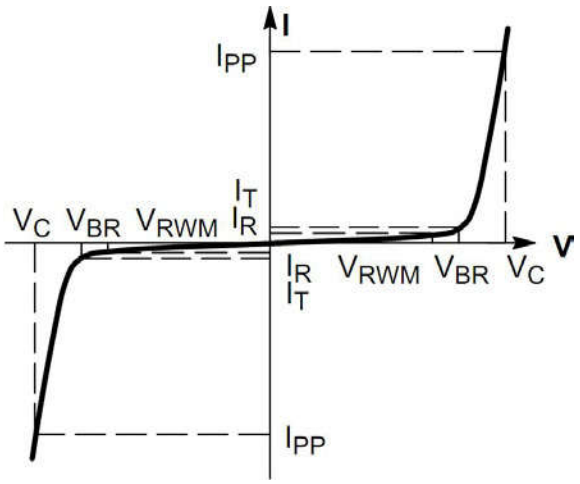


Fig.3 V-I Capacitance For Bidirectional Diode

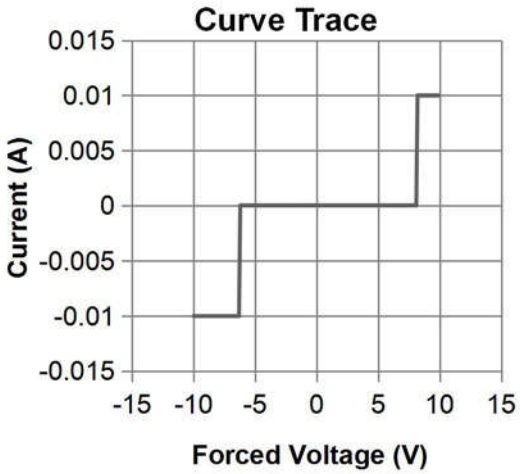


Fig. 4 IV Curve

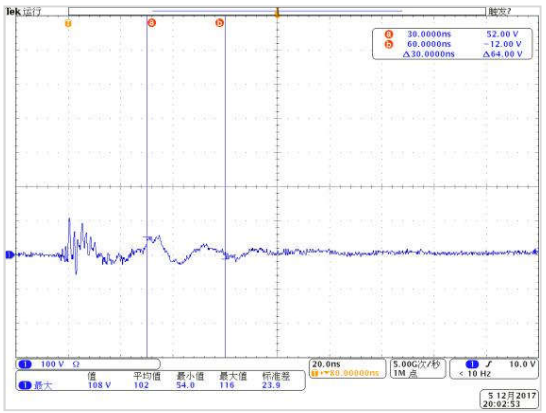


Fig.5 Clamping Voltage at IEC61000-4-2
+8kV Pulse Waveform

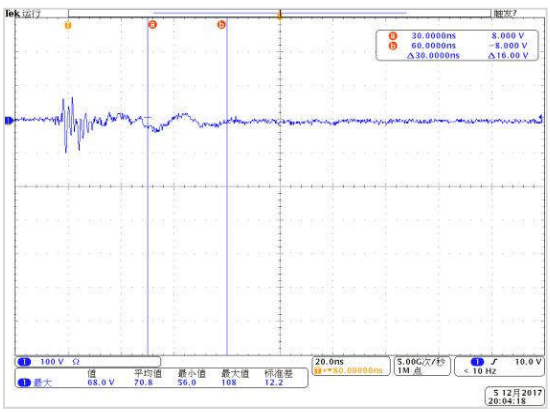


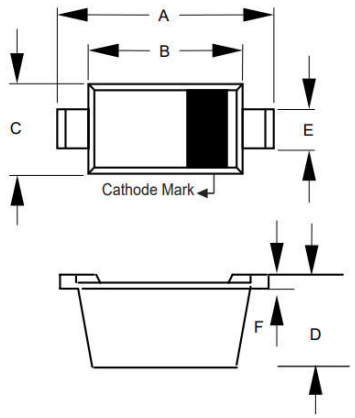
Fig.6 Clamping Voltage at IEC61000-4-2
-8kV Pulse Waveform

Ordering information

Package	Packing Description	Packing Quantity
SOD-923	Tape/Reel,7”reel	8000PCS/Reel 320000PCS/Carton

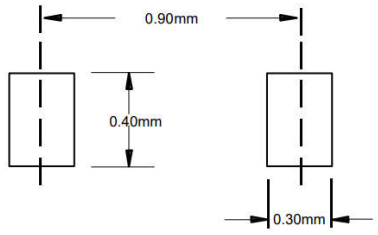
Package Dimensions

SOD-923



Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.95	1.05	37	41
B	0.75	0.85	30	33
C	0.55	0.65	22	26
D	0.36	0.43	14	17
E	0.15	0.25	6	10
F	0.07	0.17	3	7

The recommended mounting pad size



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