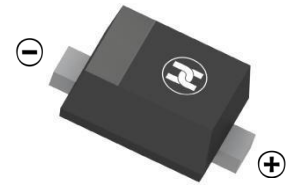
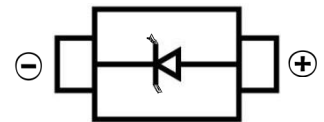


TRANSIENT VOLTAGE SUPPRESSOR For ESD Protection
FEATURES

- IEC61000-4-2 Level 4 ESD Protection
- Protects one directional I/O line
- Low clamping voltage
- Working voltages : 3.3V
- Low leakage current


SOD-523
MECHANICAL DATA

- Case: SOD-523
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Weight: 0.008 grams (approximate)



ABSOLUTE MAXIMUM RATING			
Symbol	Parameter	Value	Units
V_{ESD}	ESD per IEC 61000-4-2 (Air)	± 30	kV
	ESD per IEC 61000-4-2 (Contact)	± 22	
ESD	ESD Voltage per human body model	16	kV
	ESD Voltage per machine model	400	V
P_D	Total Power Dissipation on FR-5 Board (Note 1) @ $T_a=25^\circ\text{C}$	150	mW
T_J, T_{STG}	Junction and Storage Temperature	-55/+150	$^\circ\text{C}$
T_L	Lead Solder Temperature – Maximum (10 Second Duration)	260	$^\circ\text{C}$

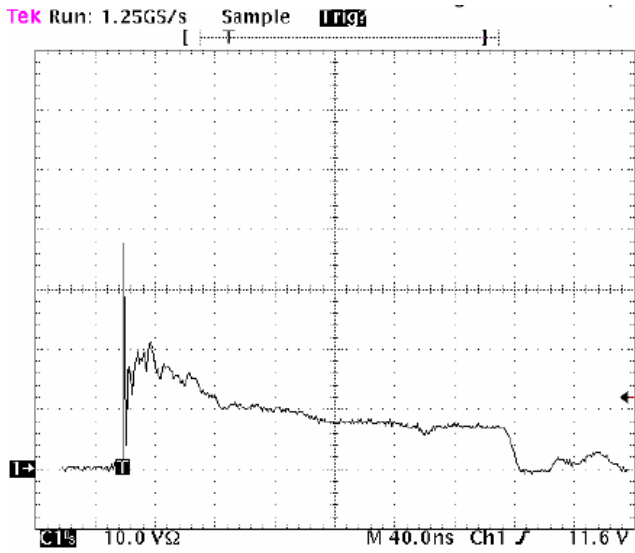
These ratings are limiting values above which the serviceability of the diode may be impaired

Note 1. FR-5=1.0x0.75x0.62 in.

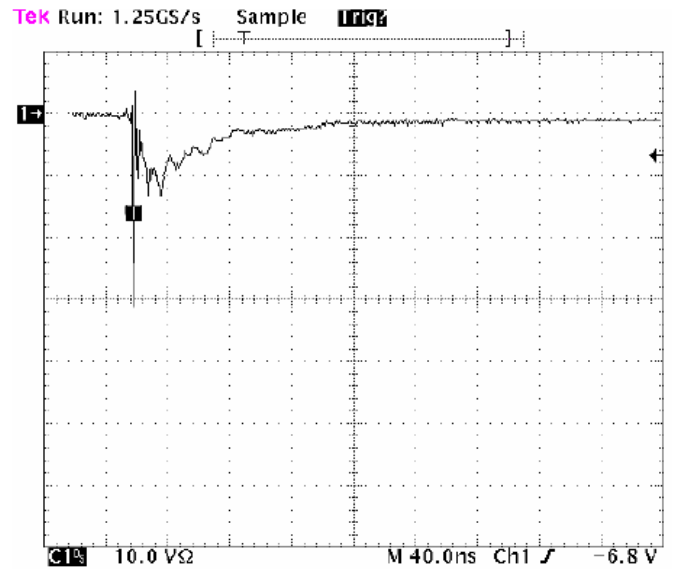
ELECTRICAL CHARACTERISTICS ($T_{amb}=25^\circ\text{C}$)											
PART NUMBER	DEVICE MARKING	V_{RWM}	I_R	V_B	I_T	V_C		V_C		P_{PK}	C_J
		(V)	(μA)	(V)	(mA)	(V)	@A	(V)	@A	(W)	(pF)
ESD5Z3.3	ZE	3.3	0.90	5.0	1	10.0	5.0	14.0	7.5	105	105

TRANSIENT VOLTAGE SUPPRESSOR For ESD Protection

ELECTRICAL CHARACTERISTICS CURVE



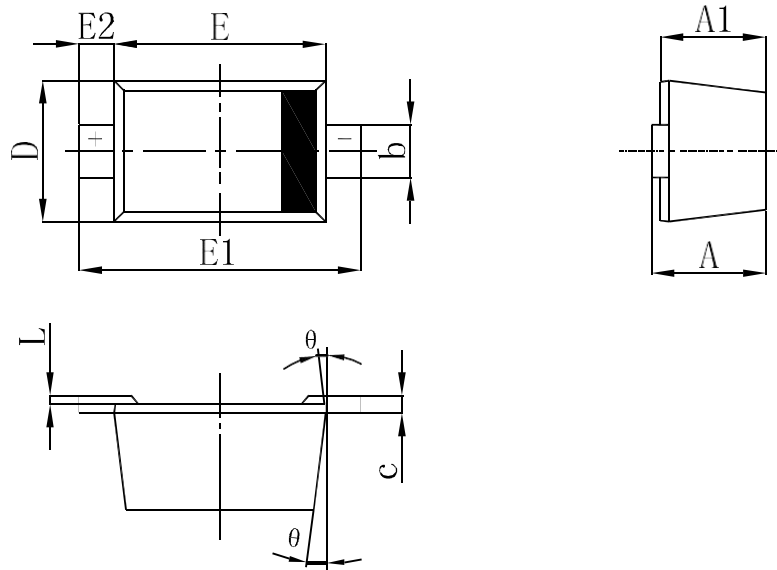
**Figure 1. ESD Clamping Voltage Screenshot
Positive 8 kV contact per IEC 61000-4-2**



**Figure 2. ESD Clamping Voltage Screenshot
Negative 8 kV contact per IEC 61000-4-2**

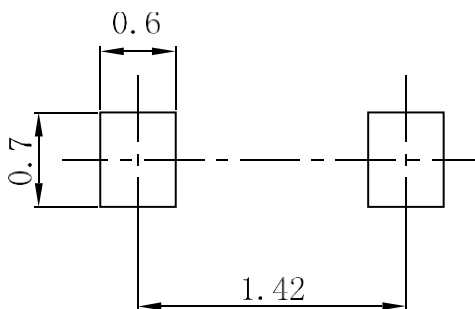
TRANSIENT VOLTAGE SUPPRESSOR For ESD Protection

SOD-523 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.510	0.770	0.020	0.031
A1	0.500	0.700	0.020	0.028
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	0.750	0.850	0.030	0.033
E	1.100	1.300	0.043	0.051
E1	2.250	2.750	0.100	0.108
E2	0.200 REF		0.008 REF	
L	0.010	0.070	0.001	0.003
θ	7°REF		7°REF	

SOD-523 Suggested Pad Layout



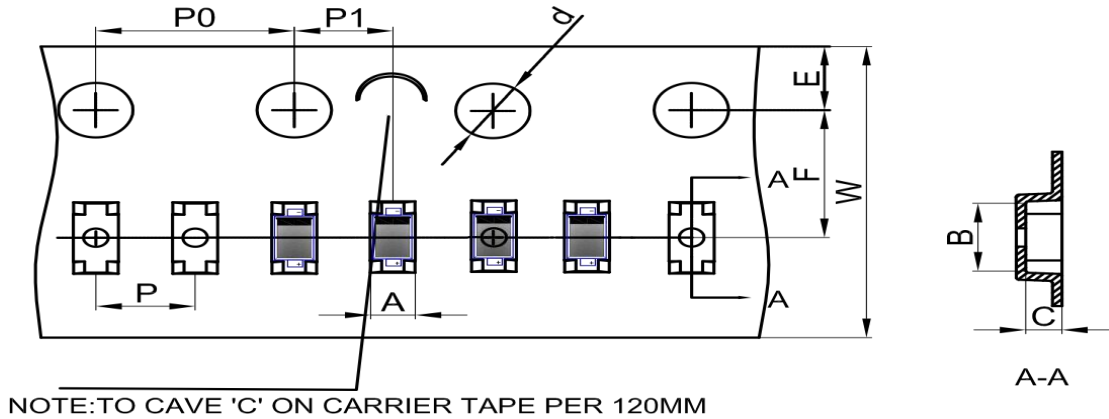
Note:

1. Controlling dimension: in millimeters
2. General tolerance: $\pm 0.05\text{mm}$
3. The pad layout is for reference purposes only

TRANSIENT VOLTAGE SUPPRESSOR For ESD Protection

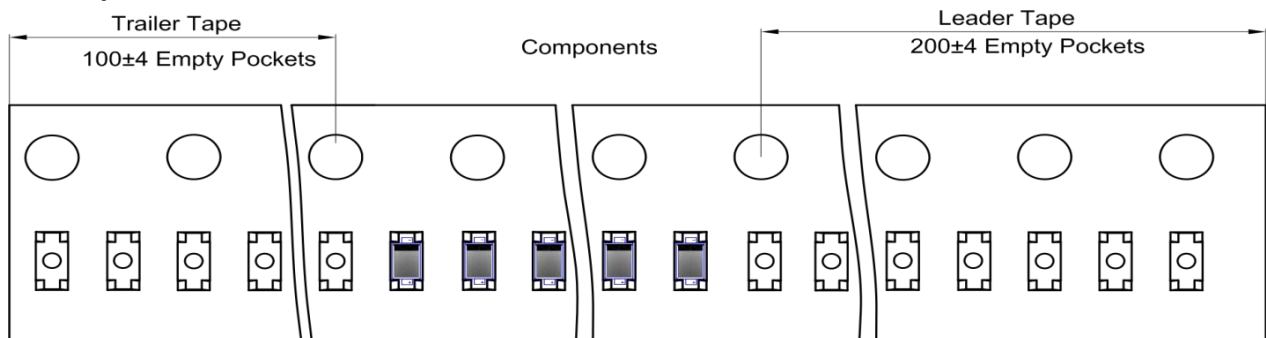
SOD-523 Tape and Reel

SOD-523 Embossed Carrier Tape

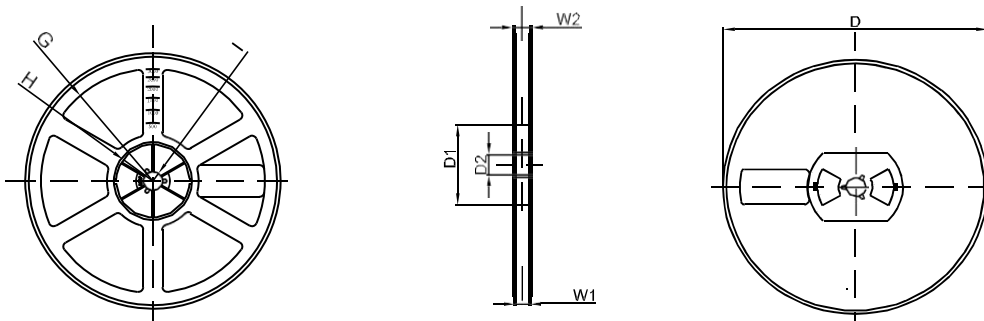


DIMENSIONS ARE IN MILLIMETER										
TYPE	A	B	C	d	E	F	P0	P	P1	W
SOD-523	0.90	1.94	0.73	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00
TOLERANCE	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1

SOD-523 Tape Leader and Trailer



SOD-523 Reel



DIMENSIONS ARE IN MILLIMETER								
REEL OPTION	D	D1	D2	G	H	I	W1	W2
7" DIA	Ø178	54.40	13.00	R78	R25.60	R6.50	9.50	12.30
TOLERANCE	±2	±1	±1	±1	±1	±1	±1	±1