

### Surface Mount TVS Diode Array for ESD Protection

 Lead(Pb)-Free

#### Description:

\* The WOSTxx is a transient voltage suppressor designed to protect components which are connected to data and transmission lines against ESD. It clamps the voltage just above the logic level supply for positive transients, and to a diode drop below ground for negative transients.

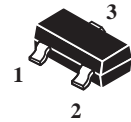
#### Features:

- \* Unidirectional Transil functions
- \* Low leakage current:  $I_R \max < 20 \mu A$  at  $V_{RM}$
- \* 300W peak pulse power(8/20 $\mu s$ )
- \* Transient protection for data lines as per IEC61000-4-2(ESD) 15KV(air) 8KV(contact) IEC61000-4-5(Lightning) see  $I_{PPM}$  below

#### Mechanical Data:

- \* Case : Molded Epoxy
- \* Marking : Marking Code
- \* Weight : 0.008 grams(approx)

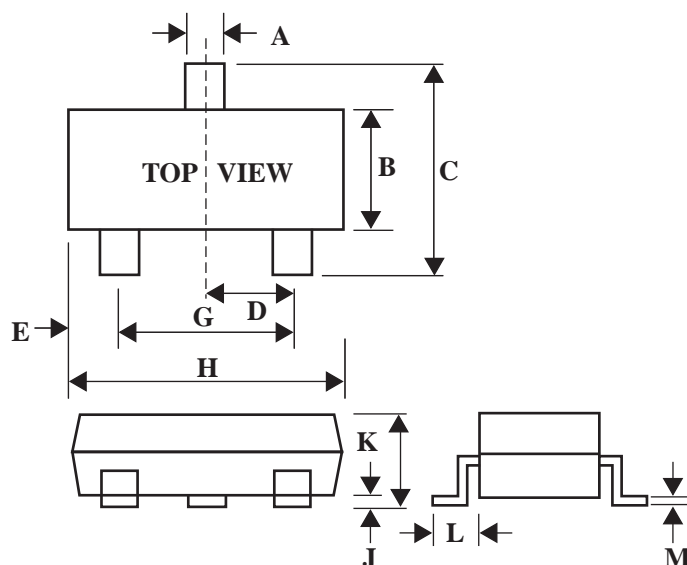
**TRANSIENT  
VOLTAGE  
SUPPRESSORS  
300 WATTS  
4-12 VOLTS**



**SOT-23**

### SOT-23 Outline Dimensions

Unit:mm



Dim	Min	Max
A	0.35	0.51
B	1.19	1.40
C	2.10	3.00
D	0.85	1.05
E	0.46	1.00
G	1.70	2.10
H	2.70	3.10
J	0.01	0.13
K	0.89	1.10
L	0.30	0.61
M	0.076	0.25

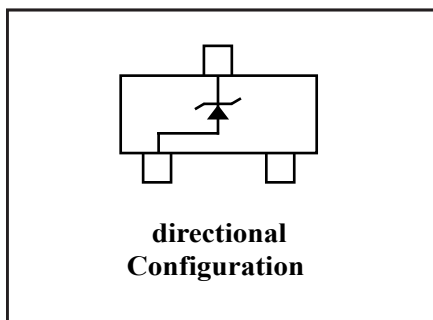
**Maximum Ratings( $T_A=25^{\circ}\text{C}$  Unless Otherwise Noted)**

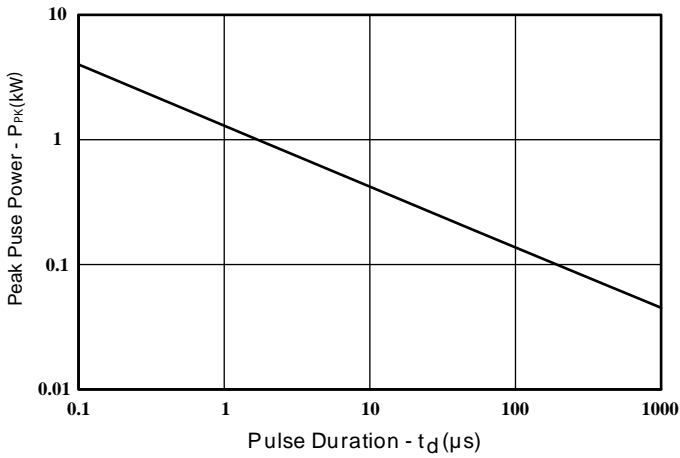
Characteristic	Symbol	Value	Unit
Peak Pulse Power Dissipation ( $t_p=8/20\mu\text{s}$ )	$P_{pp}$	300	W
Lead Soldering Temperature	$T_L$	260(10s)	$^{\circ}\text{C}$
Junction Temperature Range	$T_J$	150	$^{\circ}\text{C}$
Operating Temperature Range	$T_{op}$	-40 to +125	$^{\circ}\text{C}$
Storage Temperature Range	$T_{stg}$	-55 to +150	$^{\circ}\text{C}$
Electrostatic Discharge IEC61000-4-2 air discharge IEC61000-4-2 contact discharge	$V_{pp}$	15 8	kv

**Electrical Characteristics( $T_A=25^{\circ}\text{C}$  Unless Otherwise Noted)**

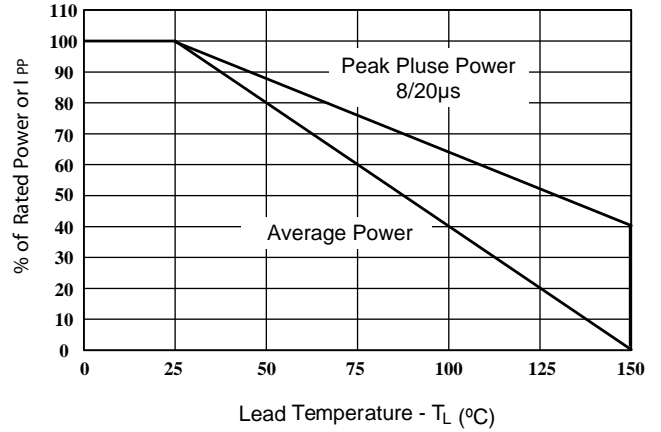
Part Number	Marking Code	Max Reverse Leakage @ $V_{RWM}$	Reverse Stand off Voltage	Breakdown Voltage $V_{BR}@1\text{mA}$	Max Clamping Voltage @1A	Max Clamping Voltage @5A	Max Pulse Peak Current $t_p=8/20\mu\text{s}$	Capacitance @0V,1MHz
		$I_R(\mu\text{A})$	$V_{RWM}(\text{V})$	MIN(V)	$V_c(\text{V})$	$V_c(\text{V})$	(A)	(PF)
WOST04	04	20	4.0	5.0	8.5	10.5	17	300
WOST05	05	20	5.0	6.0	9.8	12.5	17	220
WOST08	08	5.0	8.0	8.5	13.4	15.0	15	190
WOST12	12	1.0	12.0	13.3	19.0	28	12	150

**Equivalent Circuit Diagram:**

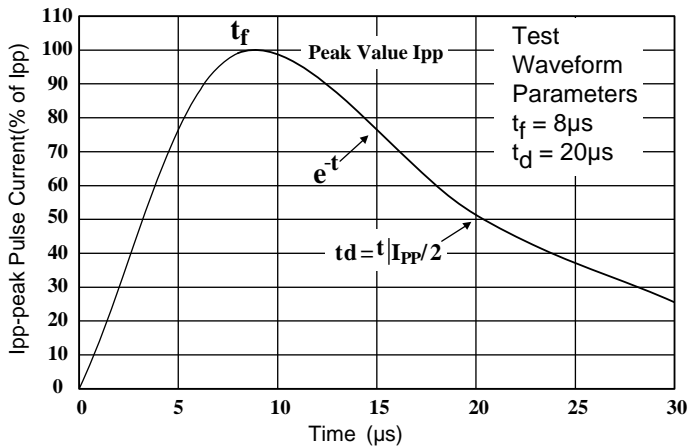




**FIG.1 Peak Pulse Power vs. Pulse Time**



**FIG.2 Power Derating Curve**



**FIG.3 Pulse Waveform**