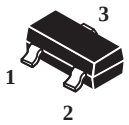
WEITRON

WOST04 thru WOST12

Surface Mount TVS Diode Array for ESD Protection

TRANSIENT VOLTAGE SUPPRESSORS 300 WATTS 4-12 VOLTS

Lead(Pb)-Free



SOT-23

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:

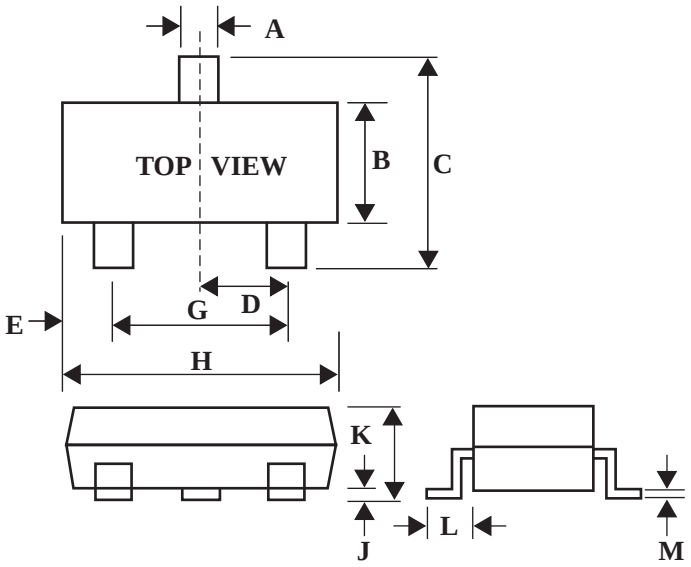
* Unidirectional Transil functions
* Low leakage current: I_R max< 20 μA at V_{RM}
* 300W peak pulse power(8/20μs)
* Transient protection for data lines as per IEC61000-4-2(ESD) 15KV(air) 8KV(contact) IEC61000-4-5(Lightning) see I_{PPM} below

Mechanical Data:

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

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

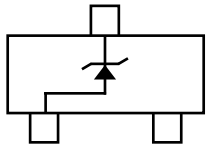
Maximum Ratings(T_A=25˚C Unless Otherwise Noted)

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

Electrical Characteristics(T_A=25˚C Unless Otherwise Noted)

Part Number	Marking Code	Max Reverse Leakage @V_{RWM}	Reverse Stand off Voltage	Breakdown Voltage VBR@1mA	Max Clamping Voltage @1A	Max Clamping Voltage @5A	Max Pulse Peak Current tp=8/20us	Capacitance @0V,IMHZ
		I_R(μA)	V_{RWM}(V)	MIN(V)	Vc(V)	Vc(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

Eqivalent Circuit Diagram:



directional Configuration

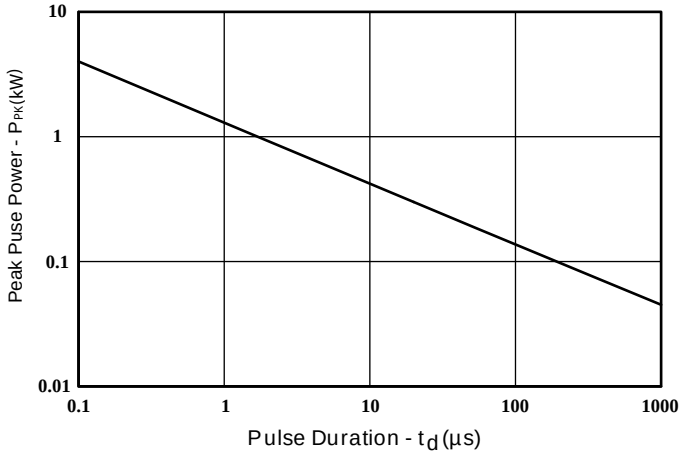


FIG.1 Peak Pulse Power vs. Pulse Time

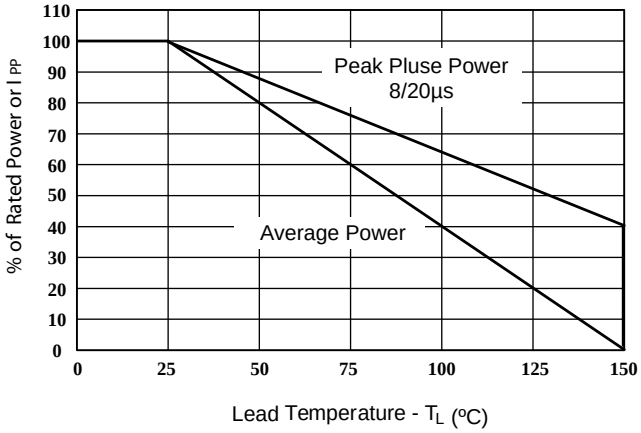


FIG.2 Power Derating Curve

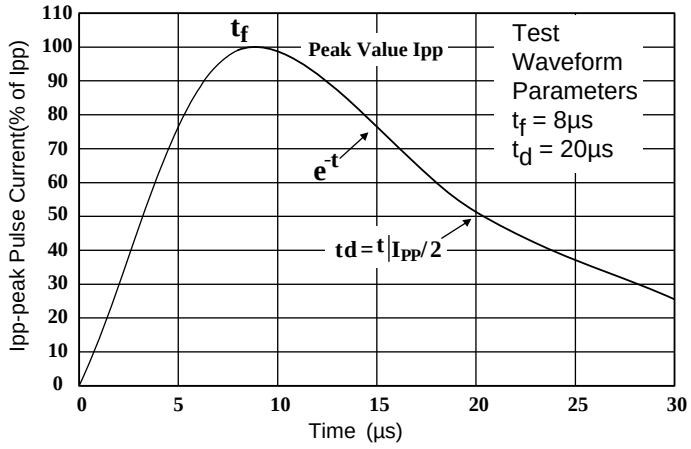


FIG.3 Pulse Waveform