

Surface Mount TVS Diodes Array for ESD Protection

 Lead(Pb)-Free

FEATURES

- * ESD Protection to IEC 61000-4-2,30KV(Air), 30KV(Contact)
- * 300 Watts Peak Power Protection(tp=8/20 uS)
- * Excellent Clamping Capability
- * Low Leakage Current
- * Protects one I/O or Power line
- * Solid-state Silicon-avalanche Technology
- * Small Package for use in Portable Electronics
- * Transient Voltage Suppressors Encapsulated in a SOD-323 Package

MECHANICAL DATA

- * CASE: Molded Epoxy
- * TERMINAS: UL 94V-0
- * WEIGHT: 0.0045 gram
- * MOUNTING POSITION: Any

APPLICATIONS

- * Microprocessor based equipment
- * Notebooks, Desktops, and Servers
- * Cell Phone Handsets and Accessories
- * Personal Digital Assistants(PDA's)
- * Portable Instrumentation
- * Pagers Peripherals

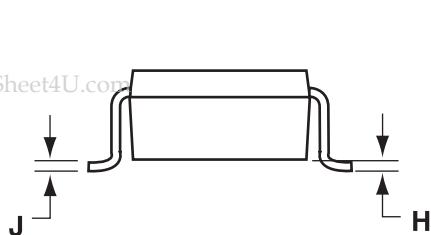
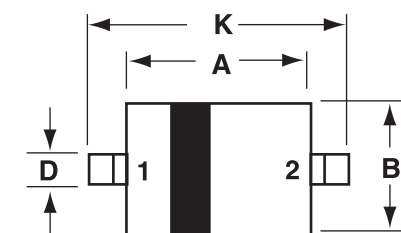
**TRANSIENT
VOLTAGE
SUPPRESSORS
300 WATTS
3-12 VOLTS**



SOD-323

SOD-323 Outline Dimensions

Unit:mm



Dim	MILLMETERS	
	Min	Max
A	1.60	1.80
B	1.15	1.35
C	0.80	1.00
D	0.25	0.40
E	0.15REF	
H	0.00	0.10
J	0.089	0.177
K	2.30	2.70

PIN 1.CATHODE
2.ANODE

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

Characteristic	Symbol	Vote	Unit
Peak Pulse Power($t_p = 8/20\mu\text{s}$)	P_{PK}	300	W
ESD Voltage(HBM Waveform per IEC 61000-4-2)	V_{ESD}	30	kV
Lead Soldering Temperature	T_L	260(10s)	$^{\circ}\text{C}$
Operating Temperature Range	T_J	-55 to +125	$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($T = 25^{\circ}\text{C}$)

WOSD03					
TYPE NUMBER	Symbol	Min	Typ	Max	Unit
Reverse Stand-Off Voltage	V_{RWM}	-	-	4	V
Reverse Breakdown Voltage $I_t = 1\text{mA}$	V_{BR}	5	-	-	V
Reverse Leakage Current $V_{RWM} = 3.3\text{V}$	I_R	-	-	20	μA
Clamping Voltage $I_{PP} = 1\text{A}, t_p = 8/20\mu\text{s}$ $I_{PP} = 5\text{A}, t_p = 8/20\mu\text{s}$	V_C	-	-	7 8.5	V
Peak Pulse Current $t_p = 8/20\mu\text{s}$	I_{PP}	-	-	12	A
Junction Capacitance $V_R = 0\text{V}, f = 1\text{MHz}$	C_j	-	-	350	pF
Device Marking		3D			

WOSD05					
TYPE NUMBER	Symbol	Min	Typ	Max	Unit
Reverse Stand-Off Voltage	V_{RWM}	-	-	5	V
Reverse Breakdown Voltage $I_t = 1\text{mA}$	V_{BR}	6	-	-	V
Reverse Leakage Current $V_{RWM} = 5\text{V}$	I_R	-	-	10	μA
Clamping Voltage $I_{PP} = 5\text{A}, t_p = 8/20\mu\text{s}$ $I_{PP} = 24\text{A}, t_p = 8/20\mu\text{s}$	V_C	-	-	9.8 14.5	V
Peak Pulse Current $t_p = 8/20\mu\text{s}$	I_{PP}	-	-	24	A
Junction Capacitance $V_R = 0\text{V}, f = 1\text{MHz}$	C_j	-	-	350	pF
Device Marking		ZA			

ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ Unless Otherwise Noted)

WOSD12					
TYPE NUMBER	Symbol	Min	Typ	Max	Unit
Reverse Stand-Off Voltage	V_{RWM}	-	-	12	V
Reverse Breakdown Voltage $I_t = 1\text{mA}$	V_{BR}	13.3	-	-	V
Reverse Leakage Current $V_{RWM} = 12\text{V}$	I_R	-	-	1	μA
Clamping Voltage $I_{PP} = 5\text{A}, t_p = 8/20\mu\text{s}$ $I_{PP} = 15\text{A}, t_p = 8/20\mu\text{s}$	V_C	-	-	19 25	V
Peak Pulse Current $t_p = 8/20\mu\text{s}$	I_{PP}	-	-	15	A
Junction Capacitance $V_R = 1\text{V}, f = 1\text{MHz}$	C_j	-	-	90	pF
Device Marking		6u , ZC			

ELECTRICAL CHARACTERISTICS CURVES

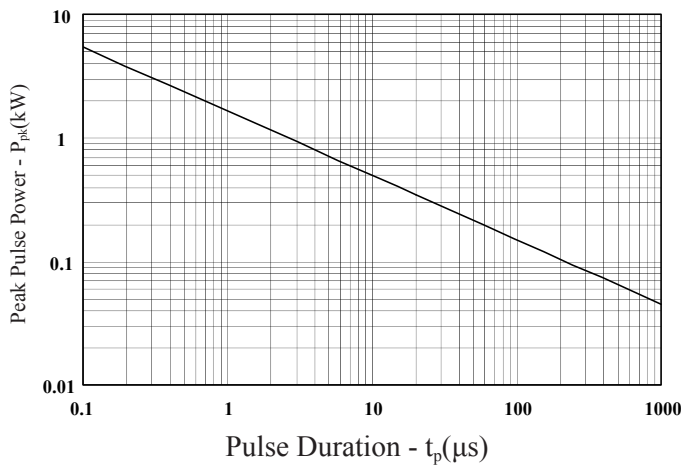


Fig.1 Non-Repetitive Peak Pulse Power vs. Pulse Time

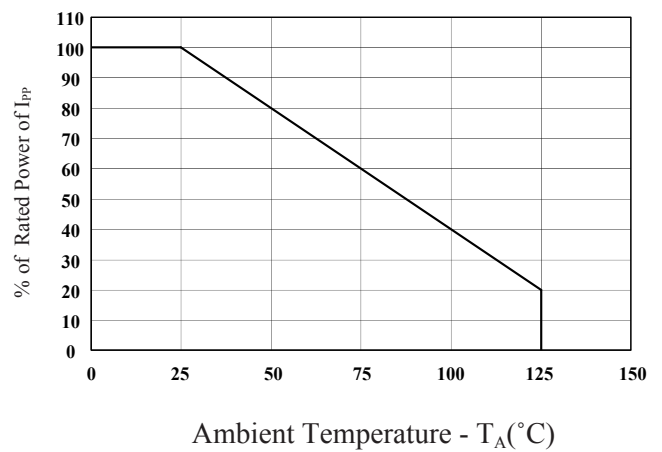


Fig.2 Power Derating Curve

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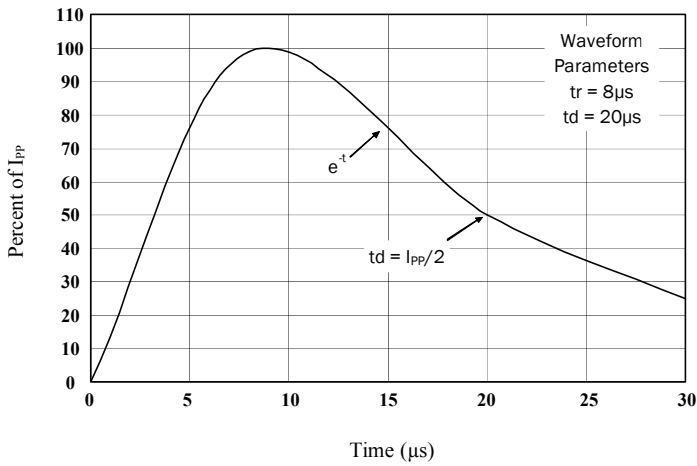


Fig.3 Pulse Waveform

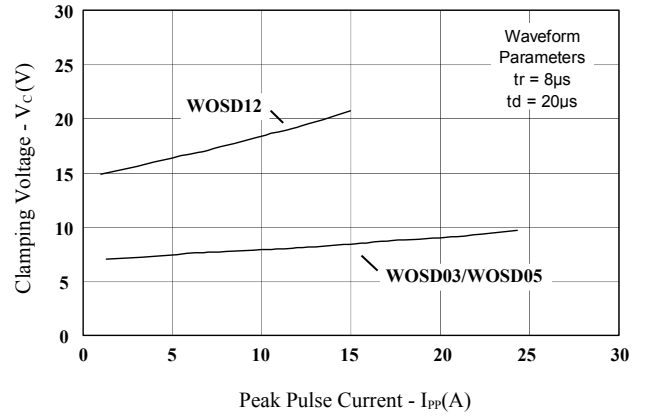


Fig.4 Clamping Voltage vs. Peak Pulse Current

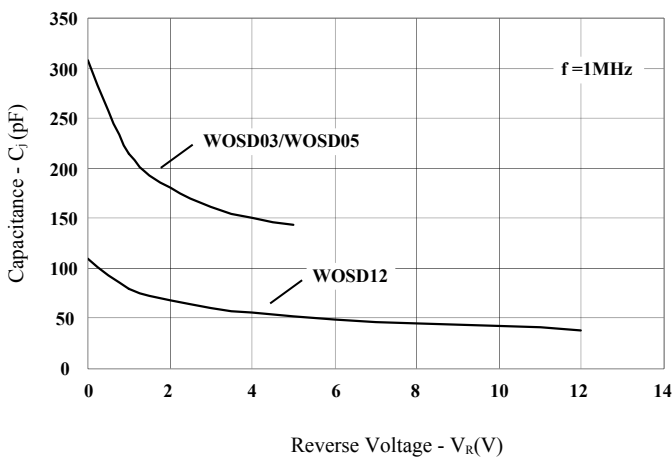


Fig.5 Capacitance vs. Reverse Voltage

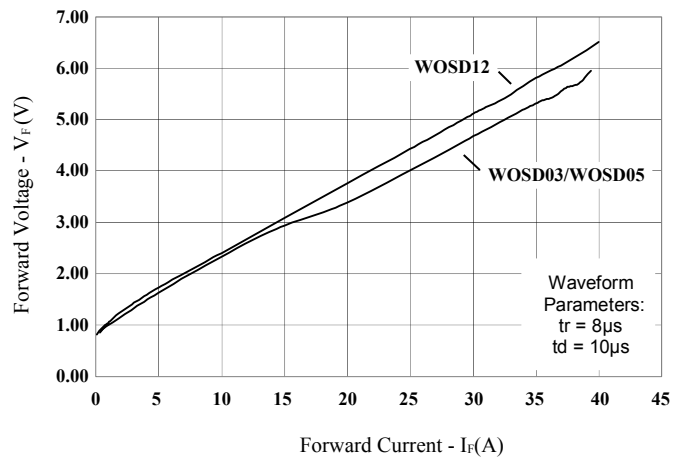


Fig.6 Forward Voltage vs. Forward Current