

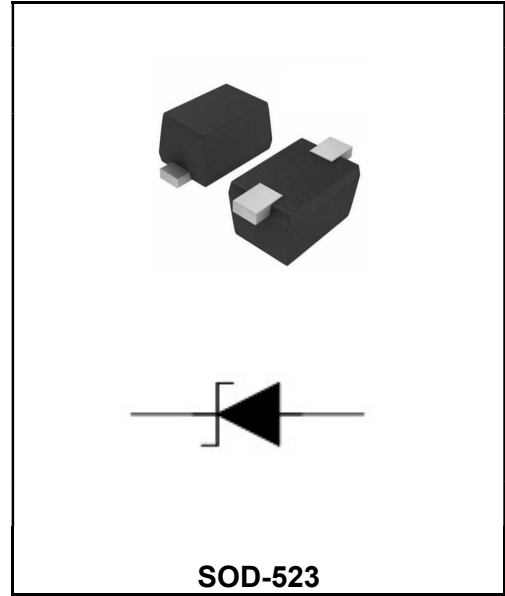
Transient Voltage Suppressor

Features

- ◆Protects one line
- ◆Working Voltage: 3.3 V
- ◆Low Leakage Current
- ◆Response Time is Typically < 1 ns
- ◆IEC 61000-4-2 (ESD) ±8 KV contact ±15 KV Air
- ◆IEC 61000-4-4 (EFT) 40A (5/50ns)

Application

- ◆Cellular Handsets & Accessories
- ◆Personal Digital Assistants (PDAs)
- ◆Notebooks & Handhelds
- ◆Portable Instrumentation
- ◆Digital Cameras
- ◆MP3 players



Order Information

Part Number	Package	Marking	Size (mm)	Delivery Form	Delivery Quantity
ESD3V3FD523	SOD-523	Z*	1.5X0.65X0.65	7" T&R	3000PCS/Tape

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

Symbol	Parameter	Conditions	value	Unit
P _{PP}	Peak Pulse Power	tP = 8/20 μs	200	W
V _{FP}	Peak Forward Voltage	IF=1 A, tP =8/20μs	1.5	V
T _J	Junction Temperature	-	-55 to+125	°C
T _{stg}	Storage Temperature Range	-	-55 to+150	°C

Electrical Characteristics(TA = 25 °C unless otherwise specified)

Symbol	Parameter	Conditions	Min	Typ.	Max	Unit
V _{RWM}	Reverse Stand-Off Voltage		-	-	3.3	V
V _{BR}	Breakdown Voltage	IT = 1mA	5.0	-	-	V
I _R	Reverse Leakage Current	VRWM = 3.3 V; TA = 25 °C	-	-	1	uA
I _{pp}	Peak Pulse Current	tP =8/20μs	-	-	11.0	A
V _C	Clamping Voltage	IPP=5 A, tP =8/20μs	-	8.3	-	V
V _C	Clamping Voltage	IPP=11.0 A, tP =8/20μs	-	14.1	-	V
C _J	Junction Capacitance	VR = 0V, f = 1 MHz	-	100	-	pF

Typical Characteristics

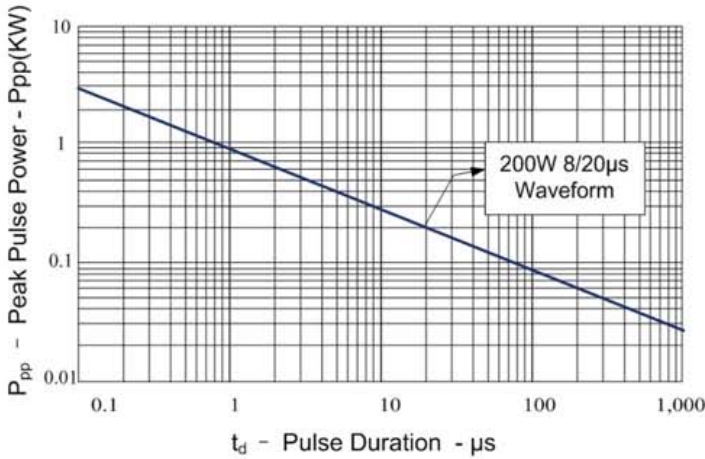


Fig.1 Peak Pulse Power vs. Pulse Time

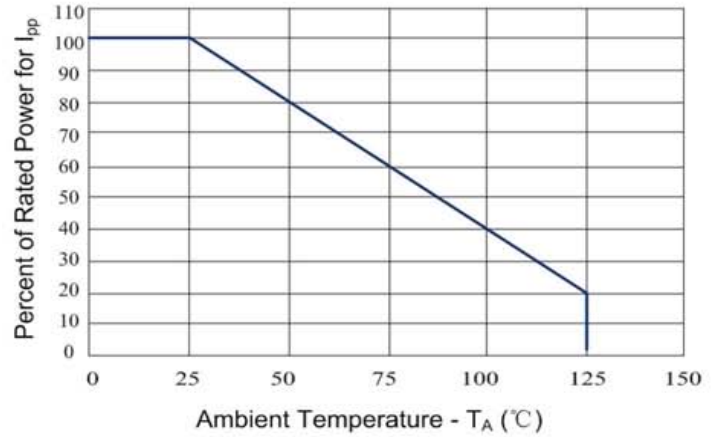


Fig.2 Power Derating Curve

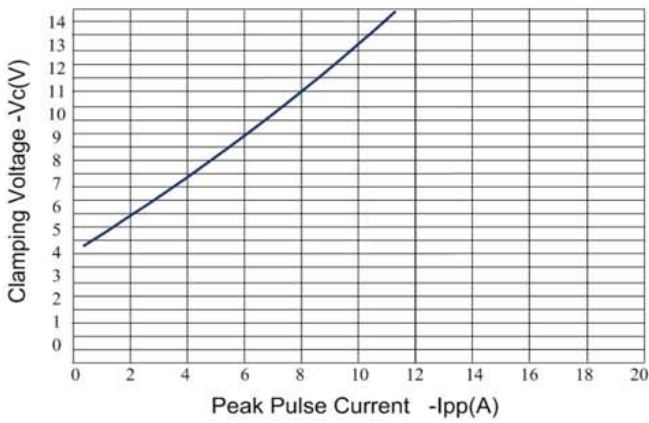


Fig.3 Clamping Voltage vs. Peak Pulse Current

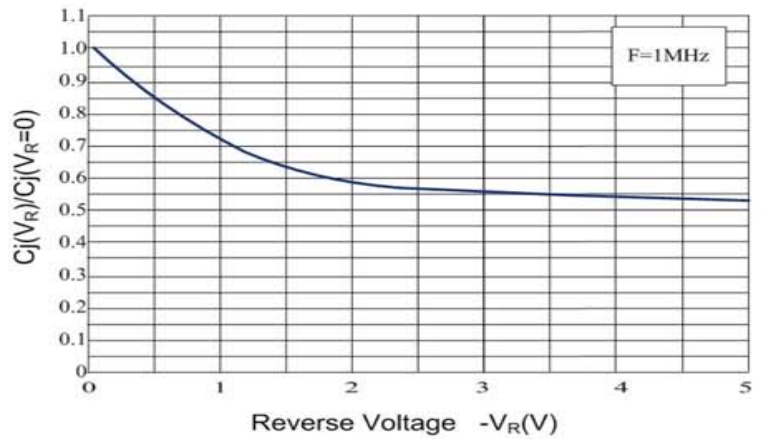


Fig.4 Normalized Junction Capacitance vs. Reverse Voltage

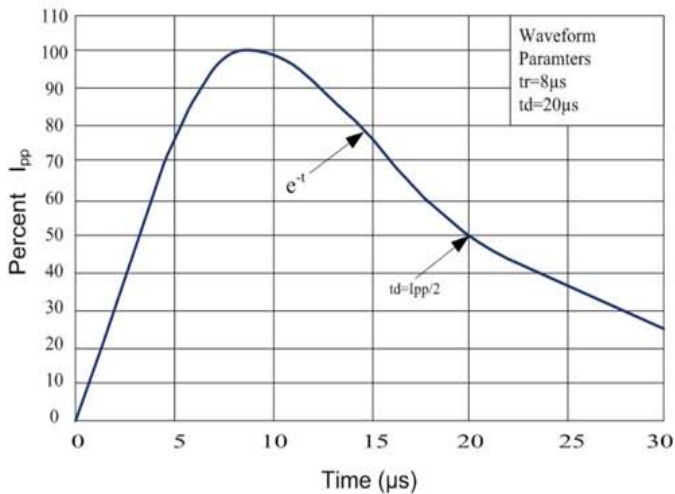


Fig.5 Pulse Waveform

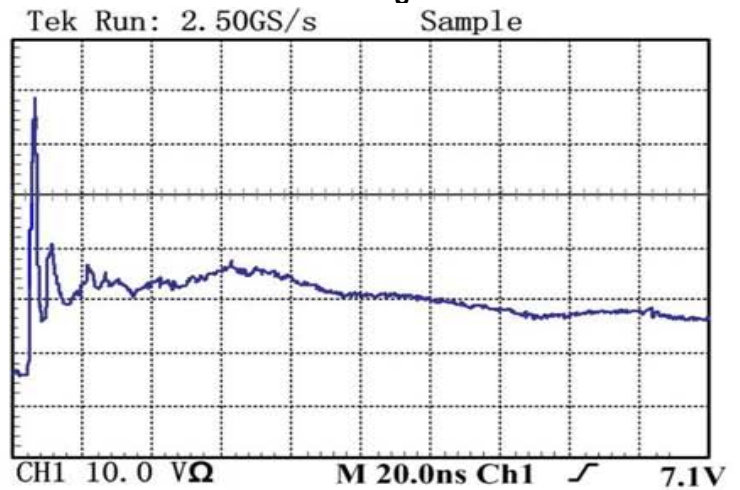
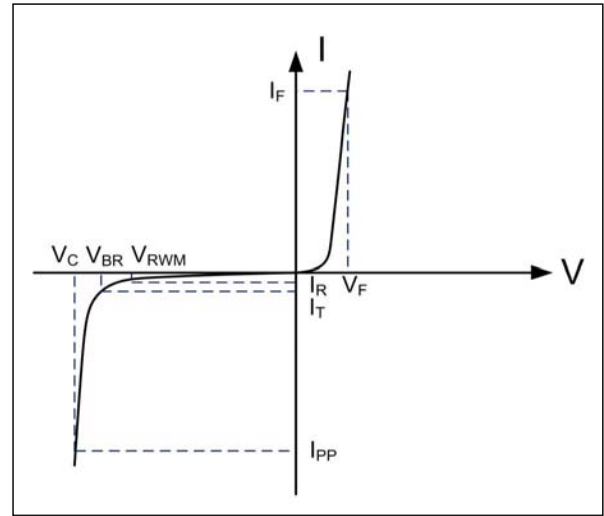


Fig.6: ESD Clamping(8kV Contact per IEC 61000-4-2)

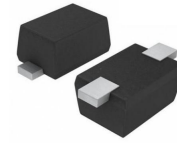
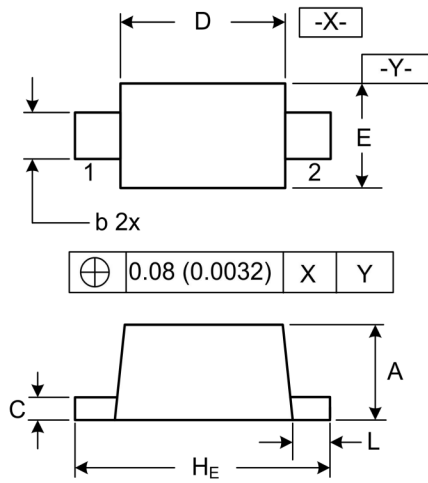
Electrical Parameters (T=25°C)

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_F	Forward Current
V_F	Forward Voltage @ I_F



Package Dimension

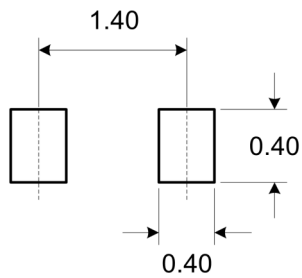
PACKAGE OUTLINE



SOD-523

DIMENSIONS

SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	0.50	0.70	0.020	0.028
b	0.25	0.35	0.010	0.014
C	0.07	0.20	0.0028	0.0079
D	1.10	1.30	0.043	0.051
E	0.70	0.90	0.028	0.035
HE	1.50	1.70	0.059	0.067
L	0.15	0.25	0.006	0.010



DIMENSIONS: MILLIMETERS

Notes

1. Controlling Dimensions in Millimeters.
2. Dimensions are exclusive of mold flash and metal burrs.