

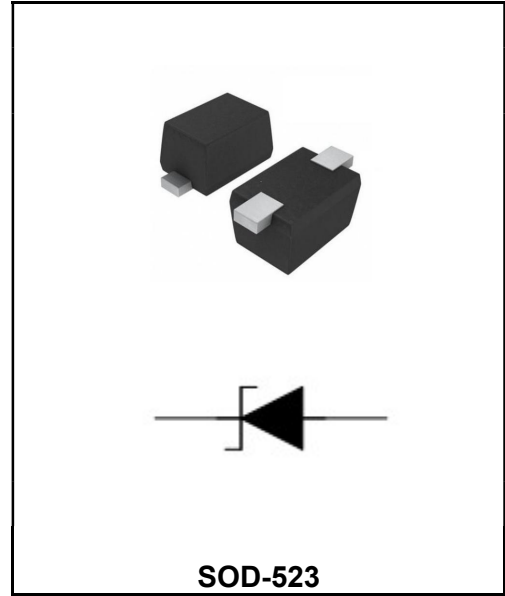
Transient Voltage Suppressor

Features

- ◆ 100 Watts Peak Pulse Power per Line (tp= 8/20us)
- ◆ Replacement for MLV(0603)
- ◆ Protects one I/O or power line
- ◆ Low Clamping Voltage
- ◆ Working Voltage: 5 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
ESD5VLD523	SOD-523	M5	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	100	W
V _{FP}	Peak Forward Voltage	IF=1 A, tP =8/20μs	1.4	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		-	-	5.0	V
V _{BR}	Breakdown Voltage	IT = 1mA	6.0	-	-	V
I _R	Reverse Leakage Current	VRWM = 5 V; TA = 25 °C	-	-	1	uA
I _{pp}	Peak Pulse Current	tP =8/20μs	-	-	7	A
V _C	Clamping Voltage	IPP=7 A, tP =8/20μs	-	13.5	16	V
C _J	Junction Capacitance	VR = 0V, f = 1 MHz	-	1	2	pF

Typical Characteristics

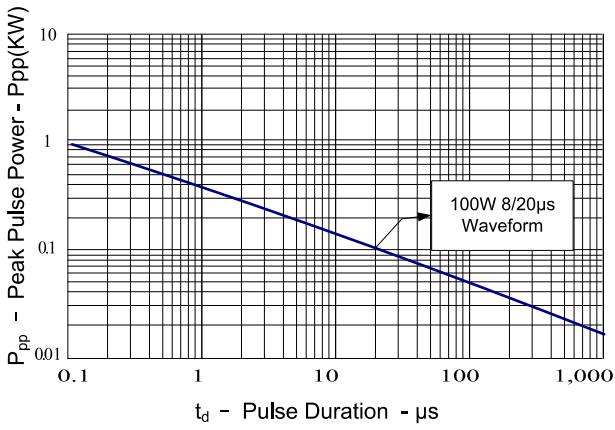


Fig.1 Peak Pulse Power vs. Pulse Time

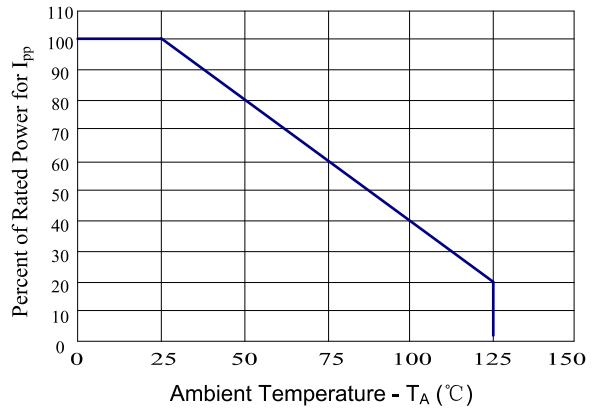


Fig.2 Power Derating Curve

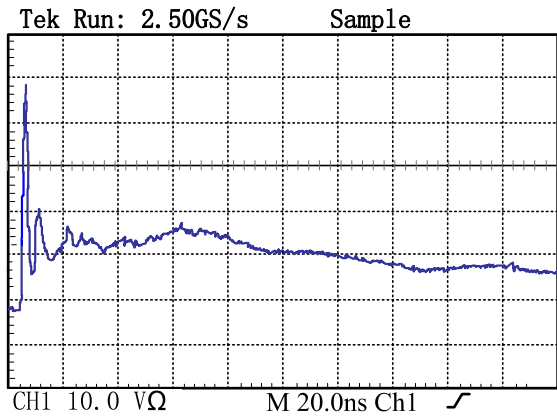


Fig.3: ESD Clamping(8kV Contact per IEC 61000-4-2)

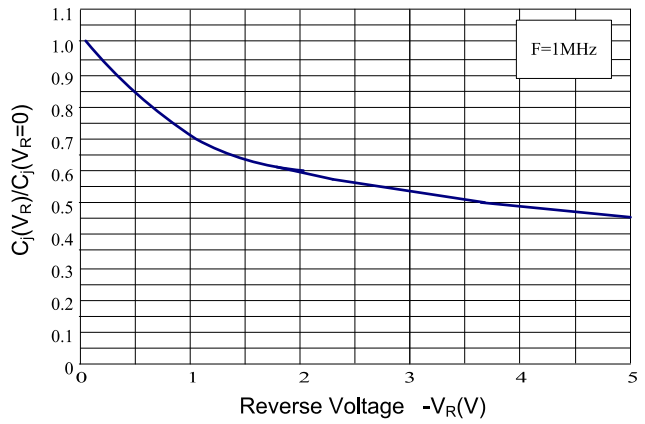
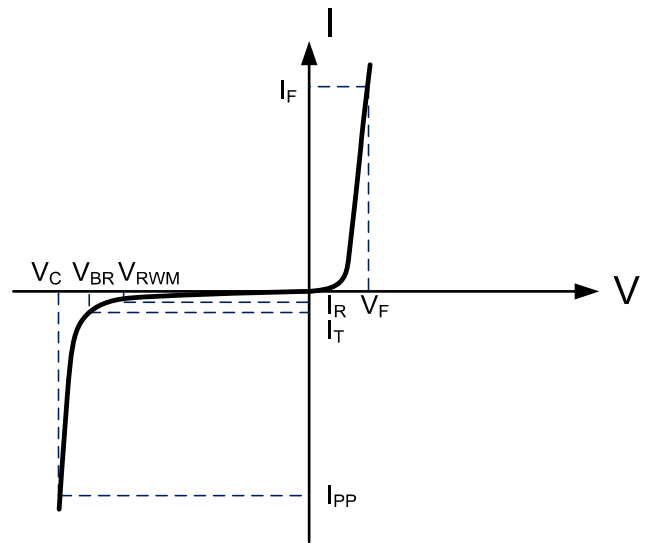


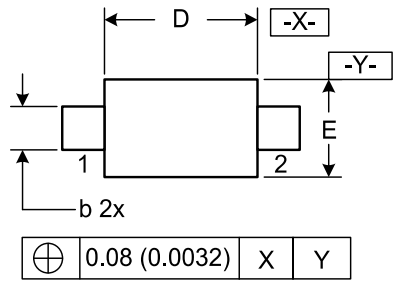
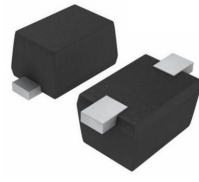
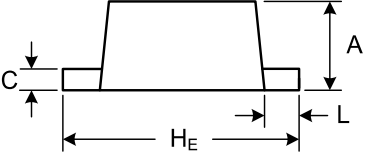

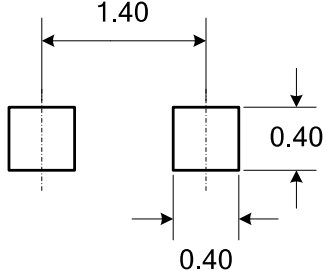
Fig.4 Normalized Junction Capacitance vs. Reverse Voltage

Electrical Parameters (T=25°C)

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Volage @ I_{pp}
V_{RWM}	Working Peak Reverse Voltage
I_R	Working Peak 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			
	0.08 (0.0032)	X	Y		
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	
H _E	1.50	1.70	0.059	0.067	
L	0.15	0.25	0.006	0.010	
		<p>Notes</p> <ol style="list-style-type: none"> Controlling Dimensions in Millimeters. Dimensions are exclusive of mold flash and metal burrs. 			
DIMENSIONS: MILLIMETERS					