

Transient Voltage Suppressor
Features

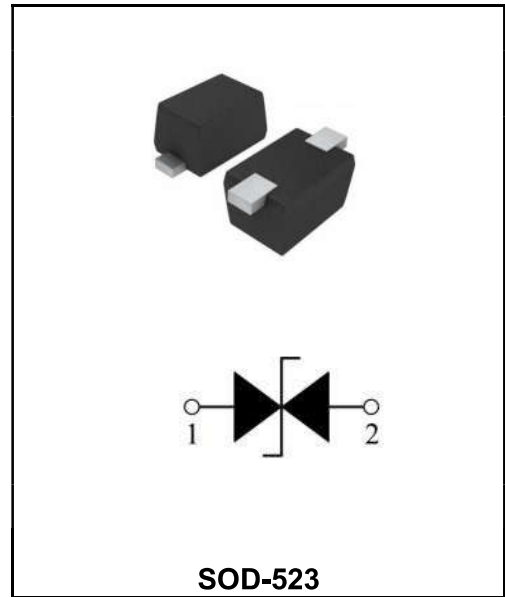
- ◆100 Watts Peak Pulse Power per Line (tp= 8/20μs)
- ◆Protects one I/O or power line
- ◆Replacement for MLV (0603)
- ◆Low Clamping Voltage
- ◆Working Voltage: 5 V
- ◆Low Leakage Current
- ◆Solid-state silicon-avalanche technology
- ◆IEC 61000-4-2 (ESD) ±30 KV contact ±30 KV Air
- ◆IEC 61000-4-4 (EFT) 40A (5/50ns)
- ◆IEC 61000-4-5 (Lightning 8/20μs): 8A

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
ESD5VFBD523	SOD-523	5XB	1.6X0.8X0.6	7" T&R	3000PCS/Tape

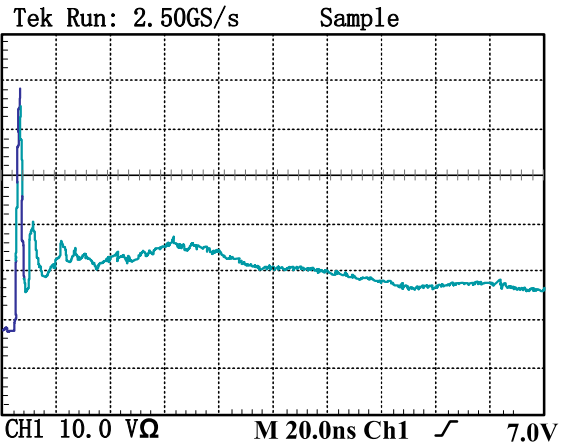
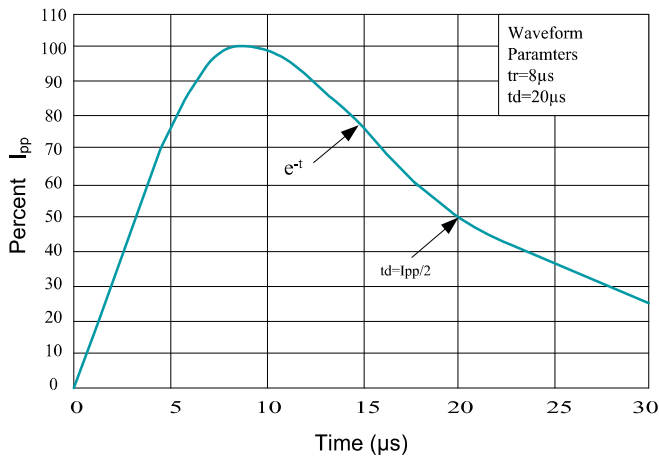
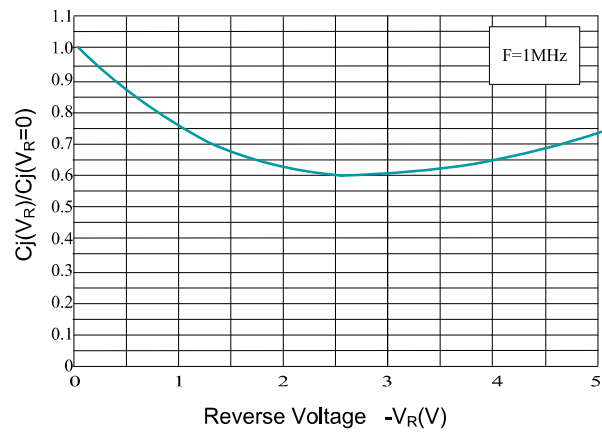
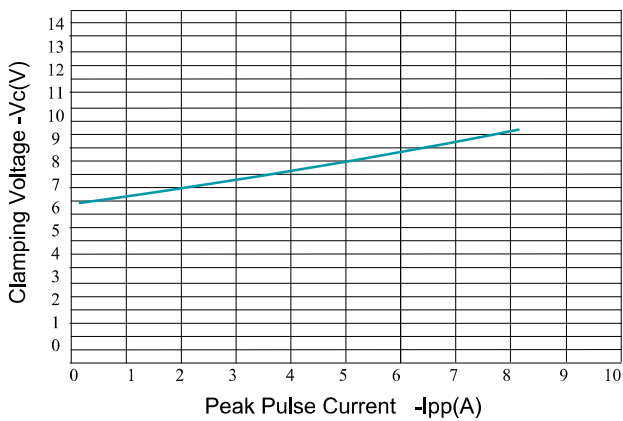
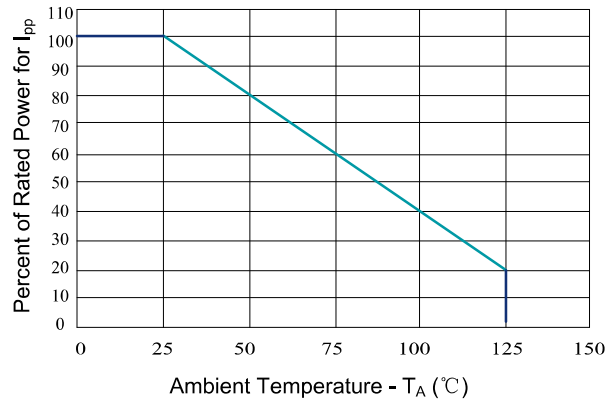
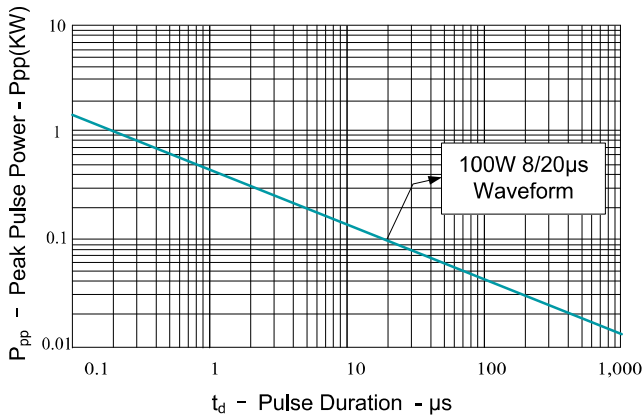

Limiting Values(TA = 25 °C, unless otherwise specified)

Symbol	Parameter	Conditions	value	Unit
P _{PP}	Peak Pulse Power	tP = 8/20 μs	100	W
I _{PPM}	Rated Peak Pulse Current	tP = 8/20 μs	8	A
V _{ESD}	ESD per IEC 61000-4-2 ESD per IEC 61000-4-2	(Air) (Contact)	30 30	KV
T _L	Lead soldering temperature		260(10seconds)	°C
T _J	Junction Temperature	-	-55 to+150	°C
T _{stg}	Storage Temperature Range	-	-55 to+150	°C

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

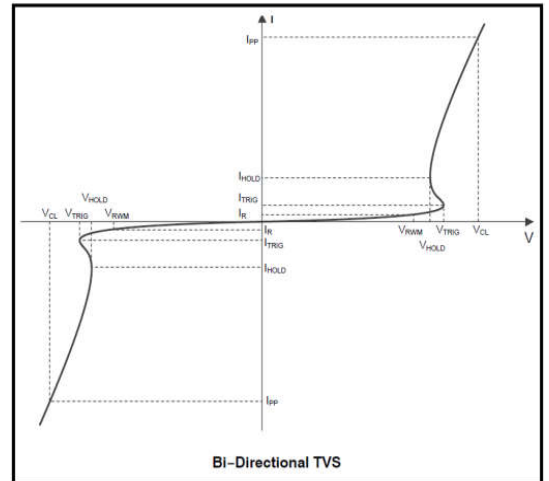
Symbol	Parameter	Conditions	Min	Typ.	Max	Unit
V _{RWM}	Reverse Stand-Off Voltage		-	-	5.0	V
V _{BR}	Breakdown Voltage	IT = 1mA	5.6	-	7.4	V
I _R	Reverse Leakage Current	VRWM = 5 V; TA = 25 °C	-	-	0.1	uA
V _C	Clamping Voltage	IPP=8 A, tP =8/20μs	-	-	9.5	V
C _J	Junction Capacitance	VR = 0V, f = 1 MHz	-	15	-	pF

Typical Characteristics


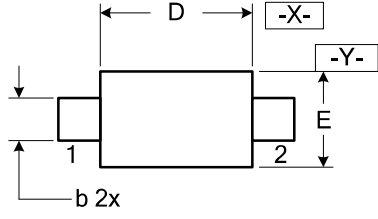
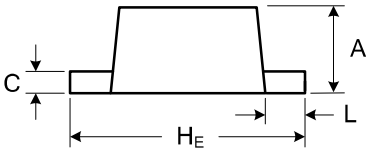
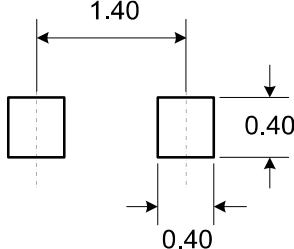


Electrical Parameters (T=25°C)

Symbol	Parameter
V_{RWM}	Reverse Stand-Off Voltage
I_R	Reverse Leakage Current
V_{CL}	Clamping Voltage
I_{PP}	Peak Pulse Current
V_{TRIG}	Reverse Trigger Voltage
I_{TRIG}	Reverse Trigger Current
V_{HOLD}	Reverse Holding Voltage
I_{HOLA}	Reverse Holding Current



Package Dimension

PACKAGE OUTLINE		 SOD-523																																															
		DIMENSIONS <table border="1"> <thead> <tr> <th rowspan="2">SYMBOL</th> <th colspan="2">MILLIMETER</th> <th colspan="2">INCHES</th> </tr> <tr> <th>MIN</th> <th>MAX</th> <th>MIN</th> <th>MAX</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>0.50</td> <td>0.70</td> <td>0.020</td> <td>0.028</td> </tr> <tr> <td>b</td> <td>0.25</td> <td>0.35</td> <td>0.010</td> <td>0.014</td> </tr> <tr> <td>C</td> <td>0.07</td> <td>0.20</td> <td>0.0028</td> <td>0.0079</td> </tr> <tr> <td>D</td> <td>1.10</td> <td>1.30</td> <td>0.043</td> <td>0.051</td> </tr> <tr> <td>E</td> <td>0.70</td> <td>0.90</td> <td>0.028</td> <td>0.035</td> </tr> <tr> <td>H_E</td> <td>1.50</td> <td>1.70</td> <td>0.059</td> <td>0.067</td> </tr> <tr> <td>L</td> <td>0.15</td> <td>0.25</td> <td>0.006</td> <td>0.010</td> </tr> </tbody> </table>				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	H _E	1.50	1.70	0.059	0.067	L	0.15	0.25	0.006	0.010
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