

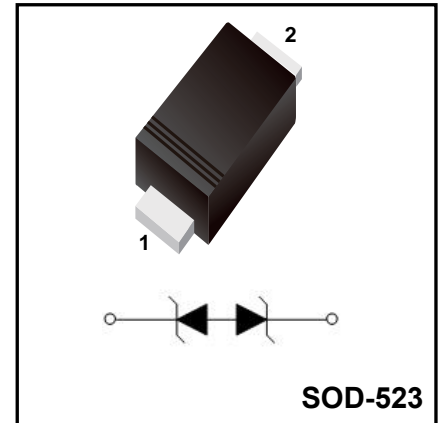
**Surface Mount Transient Voltage Suppressor**

**FEATURES:**

- ◆Protects one bi-directional I/O line
- ◆Low clamping voltage
- ◆Low operating voltage: 3.3V
- ◆ROHS compliant

**MAIN APPLICATIONS**

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



**PROTECTION SOLUTION TO MEET**

- ◆IEC61000-4-2 (ESD)+30kv (air), ±30kV (contact)

**Product Specification Classification**

Part Number	Package	Marking	Pack
ESD5Z3.3C	SOD-523	B	3000PCS/Tape

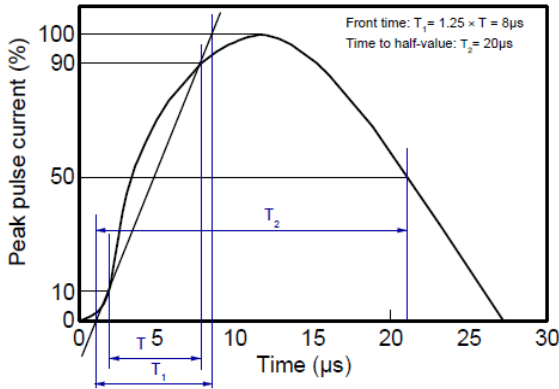
**Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)**

Parameter	Symbol	Rating	Unit
Peak Pulse Power (8/20us)	P <sub>PK</sub>	96	W
Peak Pulse Current (8/20us)	I <sub>PP</sub>	8	A
Operating Temperature	T <sub>OP</sub>	-55 ~ +150	°C
Storage Temperature	T <sub>STG</sub>	-55 ~ +150	°C

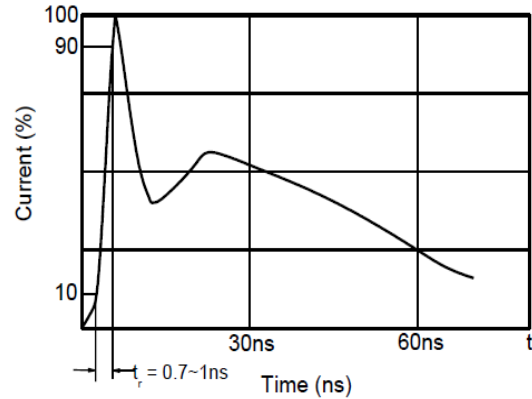
**Electrical Characteristics (TA=25°C unless otherwise specified)**

Parameter	Symbol	Test Conditions	Criterion			Unit
			Min	Typ	Max	
Reverse Working Voltage	V <sub>RWM</sub>				3.3	V
Reverse Breakdown Voltage	V <sub>BR</sub>	I <sub>t</sub> =1mA	3.5		5	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>RWM</sub> =±3.3V			0.1	uA
Clamping Voltage	V <sub>C</sub>	I <sub>pp</sub> =1A, tp=8/20us			7	V
Clamping Voltage	V <sub>C</sub>	I <sub>pp</sub> =8A, tp=8/20us			12	V
Junction Capacitance	C <sub>j</sub>	V <sub>R</sub> =0V, f=1MHz			20	pF

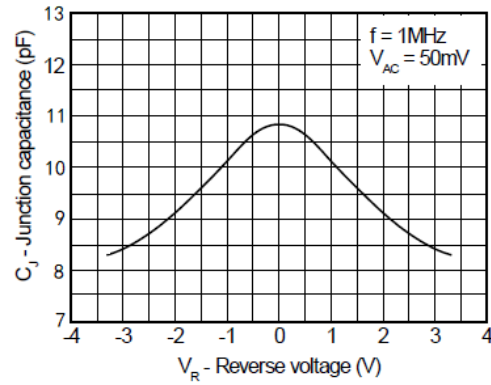
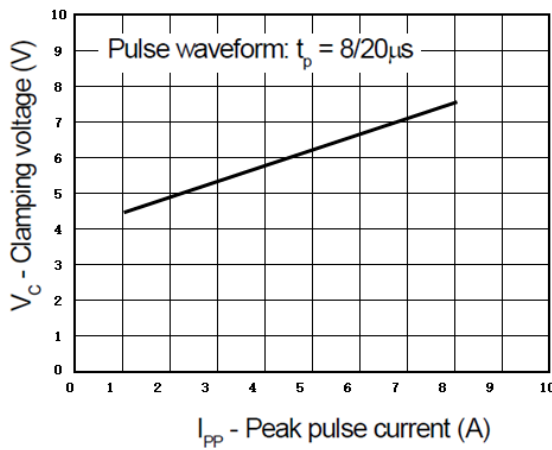
Typical Characteristics



8/20μs waveform per IEC61000-4-5



Contact discharge current waveform per IEC61000-4-2



Capacitance vs. Reverse voltage

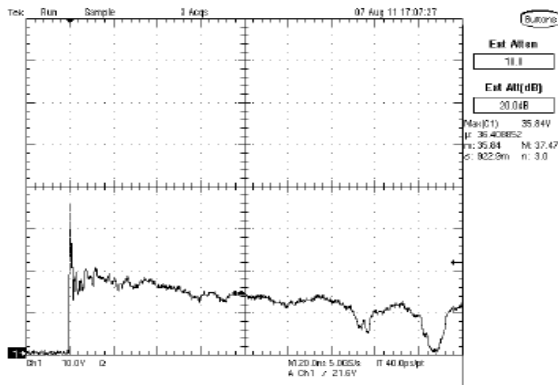


Fig1. ESD Clamping Voltage Screenshot Positive 8 kV Contact per IEC61000-4-2

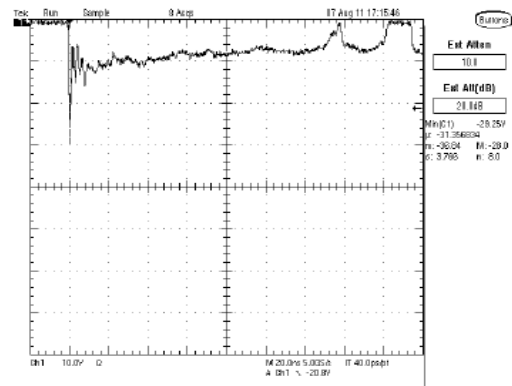
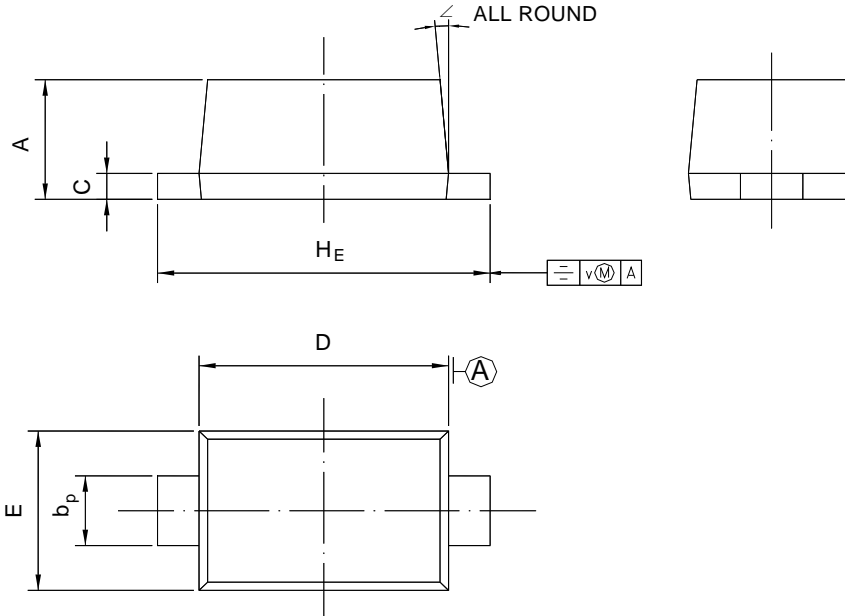


Fig2. ESD Clamping Voltage Screenshot Negative 8 kV Contact per IEC61000-4-2

Package Outline

SOD-523



UNIT	A	b <sub>p</sub>	C	D	E	H <sub>E</sub>	V	∠
mm	0.70 0.60	0.4 0.3	0.135 0.100	1.25 1.15	0.85 0.75	1.7 1.5	0.1	5°

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[SMBJ33CATR](#) [SMBJ6.5A](#) [SMBJ8.0A](#) [ESD101-B1-02ELS](#) [E6327](#) [ESD112-B1-02EL](#) [E6327](#) [ESD7451N2T5G](#) [19180-510](#) [CPDT-5V0USP-](#)  
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[P6KE13CA](#) [P6KE43CA](#) [P6KE6.8CA](#) [P6KE8.2](#) [P6SMBJ20CA](#) [JANTX1N6072A](#) [SR2835ESKG](#) [SA90CA](#)