

Surface Mount Transient Voltage Suppressor

FEATURES:

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

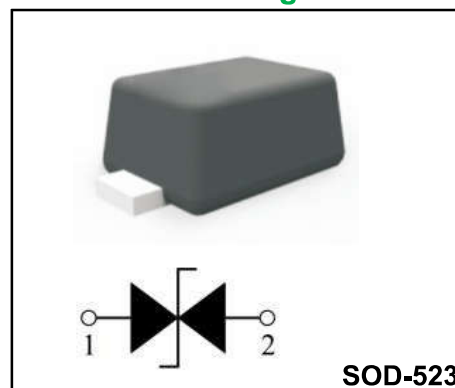
MAIN APPLICATIONS

- ◆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)

Pinning



SOD-523

Marking Code

ESD5Z3.3C	B
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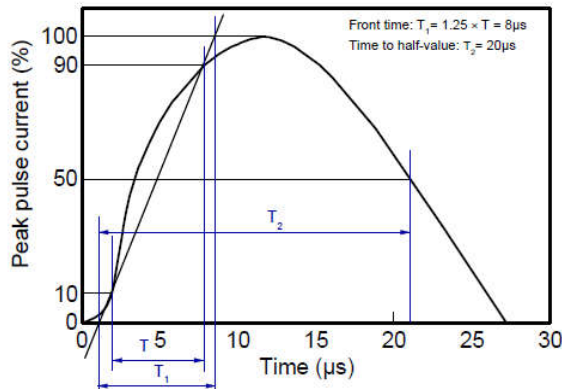
Absolute Maximum Ratings (Tamb=25℃ unless otherwise specified)

Parameter	Symbol	Rating	Unit
Peak Pulse Power (8/20us)	P_{PK}	96	W
Peak Pulse Current (8/20us)	I_{PP}	8	A
Operating Temperature	T_{OP}	-55 ~ +150	℃
Storage Temperature	T_{STG}	-55 ~ +150	℃

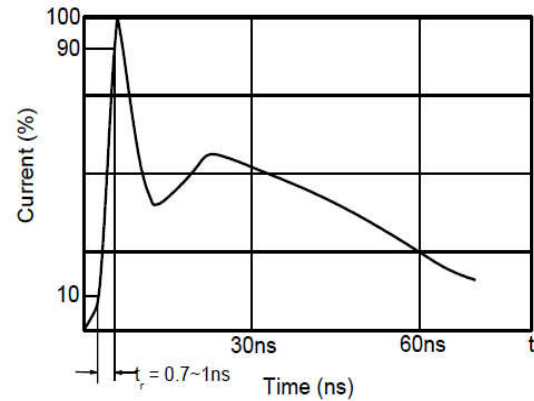
Electrical Characteristics (TA=25℃ unless otherwise specified)

Parameter	Symbol	Test Conditions	Criterion			Unit
			Min	Typ	Max	
Reverse Working Voltage	V_{RWM}				3.3	V
Reverse Breakdown Voltage	V_{BR}	It=1mA	3.5		5	V
Reverse Leakage Current	I_R	V _{RWM} =±3.3V			0.1	uA
Clamping Voltage	V_C	Ipp=1A,tp=8/20us			7	V
Clamping Voltage	V_C	Ipp=8A,tp=8/20us			12	V
Junction Capacitance	C_j	VR=0V,f=1MHz			20	pF

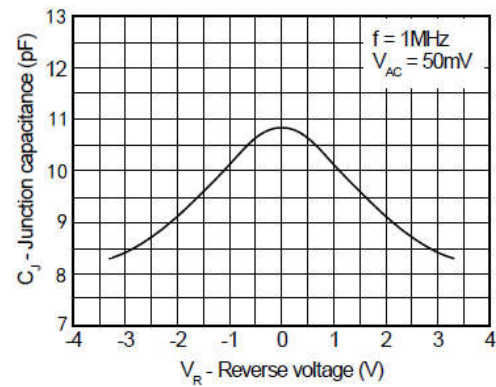
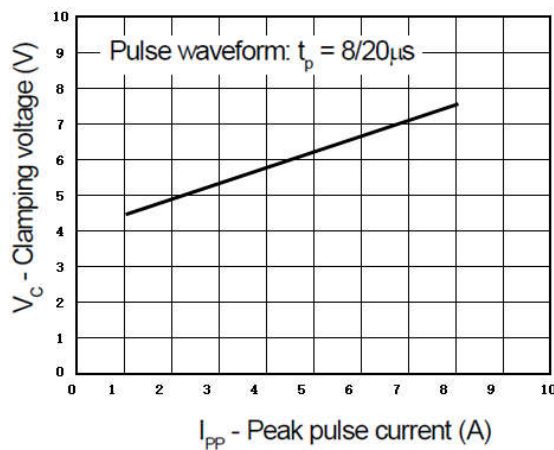
Typical Characteristics



8/20 μs waveform per IEC61000-4-5



Contact discharge current waveform per IEC61000-4-2



Capacitance vs. Reverse voltage

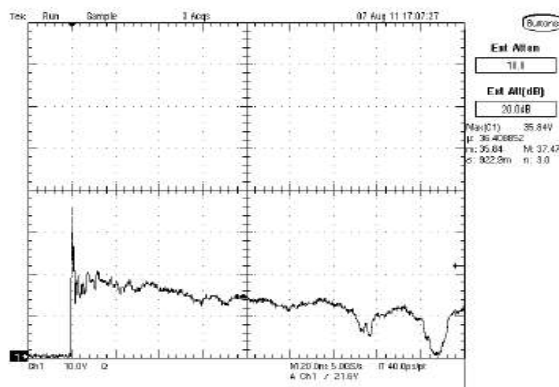


Fig1. ESD Clamping Voltage Screenshot
Positive 8 kV Contact per IEC61000-4-2

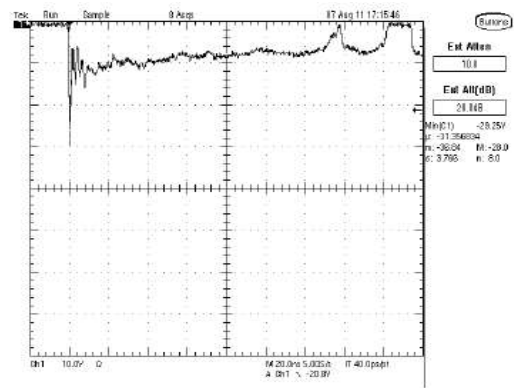


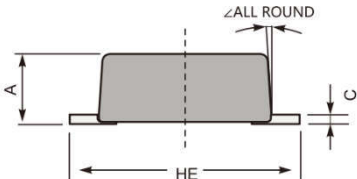
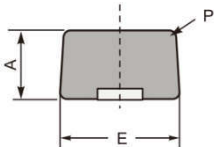
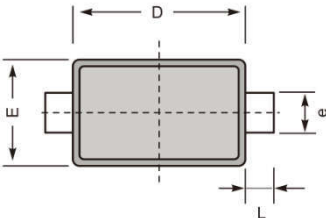
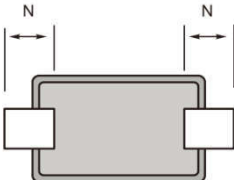
Fig2. ESD Clamping Voltage Screenshot
Negative 8 kV Contact per IEC61000-4-2

Ordering information

Package	Packing Description	Packing Quantity
SOD-523	Tape/Reel, 7" reel	3000PCS/Reel 120000PCS/Carton

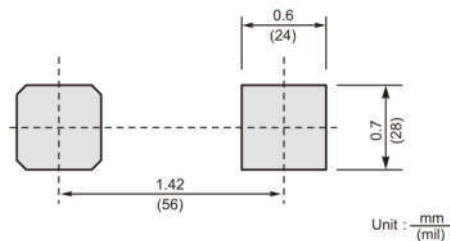
Package Dimensions

SOD-523

	
	
底视图 bottom view	

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.51	0.77	20	30
e	0.25	0.35	10	14
C	0.08	0.15	3	6
D	1.10	1.30	43	51
E	0.75	0.99	30	39
HE	1.50	1.70	59	67
N	0.35ref		14ref	
L	0.2ref		8ref	
P	R0.1 ALL ROUND		R4.0 ALL ROUND	
∠	10°			

The recommended mounting pad size



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