Single-line ESD Protection Array

STE0511

Working voltage 5V

DESCRIPTION

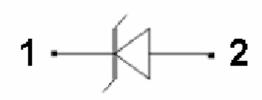
The STE0511 are designed by TVS device that is to protect sensitive electronics from damage or latch-up due to ESD. They are designed for use in applications where board space ia at a premium.

STE0511 is single TVS devices that will protect up to single line, and may be used on lines where the signal polarities swing above and below ground.

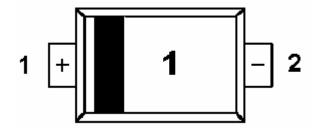
STE0511 offer desirable acaracteristics for board level protection including fast response time, low operating and clamping voltage and no device degradation.

STE0511 may be used to meet the immunity requirements of IEC 61000-4-2, level 4. The small SOD-523 package makes them ideal for use in portable electronics such as cell phone, PDA's, notebook computers, digital cameras and MP3.

PIN CONFIGURATION SOD-523



PART MSRKING



FEATURE

- Transient protection for data lines to IEC 61000-4-2 (ESD) +/- 15kV (air), +/-8KV (contect)
 IEC 61000-4-4 (EFT) 40A (5/50ns)
- Protects single I/O lines
- Working voltage : 5V
- Low leakage current
- Low operating and clamping voltages



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OREDRING INFORMATION

Part Number	Package		
STE0511D52RG	SOD-523		

STE0511D52RG: Tape Reel; Pb-Free

ABSOULTE MAXIMUM RATINGS (Ta = 25 Unless otherwise noted)

Parameter	Symbol	Typical	Unit
Peak Pulse Power (tp=8/20 us)	Ppk	250	W
Maximum Peak Pulse Currint (tp=8/20us)	Ipp	7	A
ESD per ICE 61000-4-2 (Air)	Vpp	+/-15	KV
ESD per ICE 61000-4-2 (Contact)	Vpp	+/-8	KV
Operating Junction Tempreature	Tj	-55~150	
Storgae Temperature Range	Tstg	-55~150	
Lead Soldering Temperature	$T_{ m L}$	260(10sec)	

ELECTRICAL CHARACTERISTICS (Ta = 25 Unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse Stand-Off Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	It=1mA	6		8.5	V
Reverse Leakage Current	I_R	V _{RWM} =5V, T=25		0.01	1	uA
Reverse Leakage Current	I_R	V _{RWM} =3V, T=25		0.01	0.5	uA
Clamping Voltage	$V_{\rm C}$	Ipp=1A, tp=8/20us			11.5	V
Clamping Voltage	V _C	Ipp=7A, tp=8/20us			15	V
Junction Capacitance	Cj	Between I/O Pin and GND		20	30	pF
		$V_R=0V$, f 1MHz				



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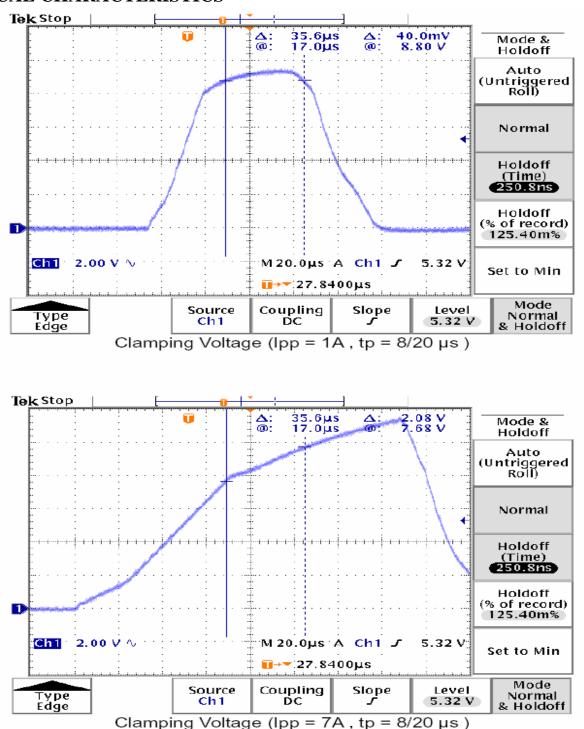
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TYPICAL CHARACTERISTICS





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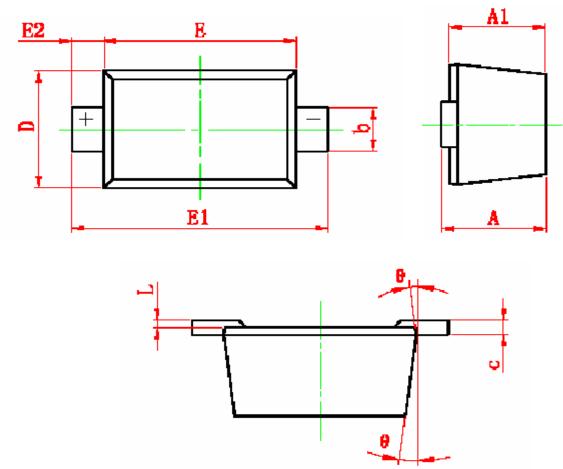
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SOD-523 PACKAGE OUTLINE



Symbol	Dimensions in Millimeters		Dimensions in Inches		
	Min	Max	Min	Max	
A	0.510				
A1	0.500				
b	0.250				
c	0.080				
D	0.750				
Е	1.100				
E1	1.500				
E2	0.200REF		0.008REF		
L	0.010				
	7? REF		7? REF		



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