

**SESDA6V8UL**

**2-Line, Ultra-low Capacitance, Uni-directional TVS**

Transient Voltage Suppressors

**General Description**

The SESDA6V8UL is a transient voltage suppressors (TVS) which provide a very high level protection for sensitive electronic components that may be subjected to electrostatic discharge (ESD). It is designed to replace multilayer varistors (MLV) in consumer equipments applications such as mobilephone, notebook, PAD, STB, LCD TV etc..

**Applications**

- Computers/Mobilephone
- PAD/STB
- LCD TV

**Features**

- Working voltage : 5V
- Small package
- Peak power (tp=8/20us) : 50W
- Low leakage current

**Complies with the following standards**

**IEC61000-4-2**

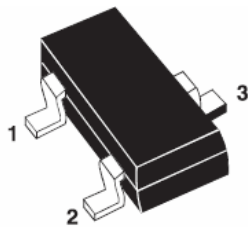
**Level 4 15 kV (air discharge)**

**8 kV(contact discharge)**

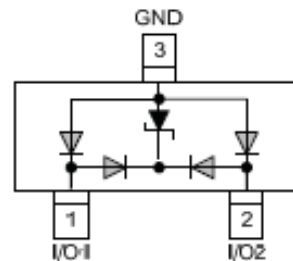
**MIL STD 883E - Method 3015-7 Class 3**

**25 kV HBM (Human Body Model)**

**Functional diagram**



**SOT-23**

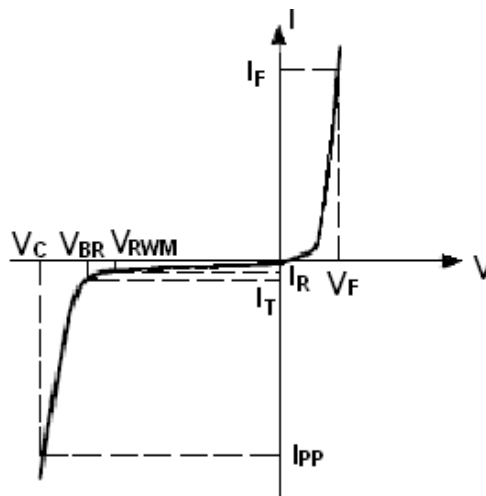


**Absolute Ratings (T<sub>amb</sub>=25°C)**

Symbol	Parameter	Value	Units
P <sub>PP</sub>	Peak Pulse Power (t <sub>p</sub> = 8/20μs)	50	W
T <sub>L</sub>	Maximum lead temperature for soldering during 10s	260	°C
T <sub>stg</sub>	Storage Temperature Range	-55 to +155	°C
T <sub>j</sub>	Maximum junction temperature	150	°C
I <sub>pp</sub>	Peak Pulse Current (t <sub>p</sub> = 8/20μs)	4	A
V <sub>PP</sub>	Electrostatic discharge		
	IEC61000-4-2 air discharge	15	kV
	IEC61000-4-2 contact discharge	8	

## Electrical Parameter

Symbol	Parameter
$I_{PP}$	Maximum Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{PP}$
$V_{RWM}$	Working Peak Reverse Voltage
$I_R$	Maximum Reverse Leakage Current @ $V_{RWM}$
$I_T$	Test Current
$V_{BR}$	Breakdown Voltage @ $I_T$

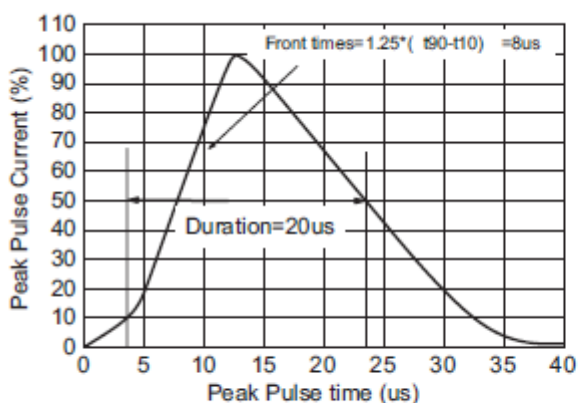


## Electrical Characteristics

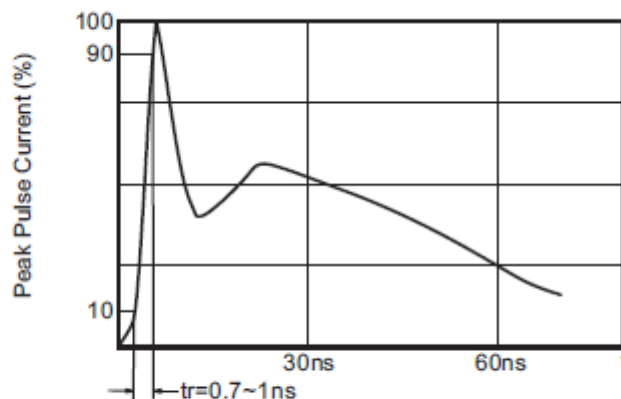
Part Numbers	$V_{BR}$			$I_T$	$V_{RWM}$	$I_R$	<b>C</b>
	Min.	Typ.	Max.				Typ. 0v bias
	V	V	V				pF
SESDA6V8UL	6.1	7.0	8.5	1	5.0	1	0.8

1).8/20 waveform used. (see fig2.)

## Typical Characteristics

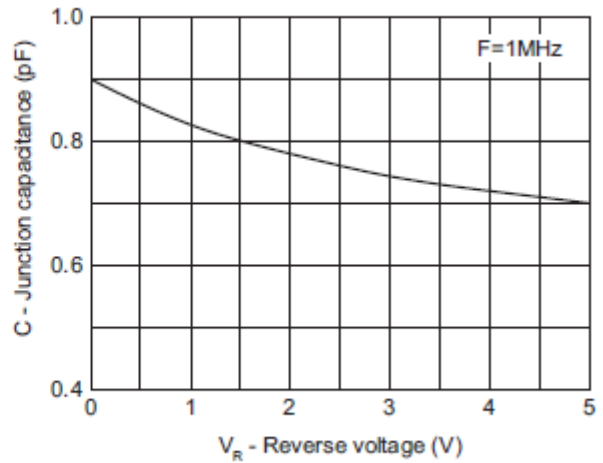
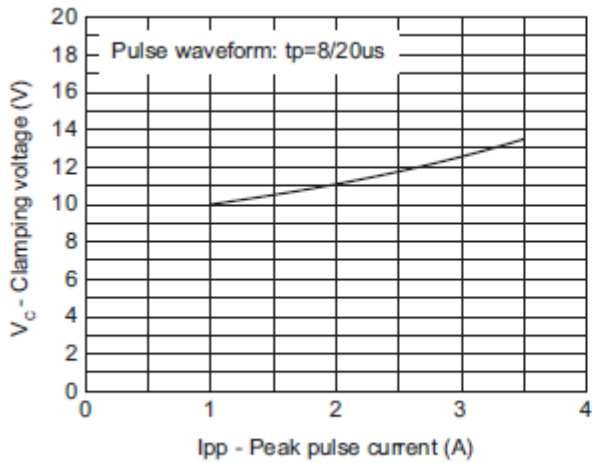


8/20us waveform

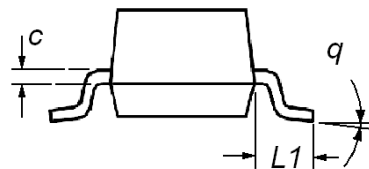
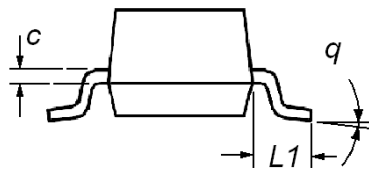
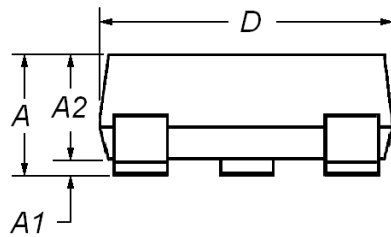
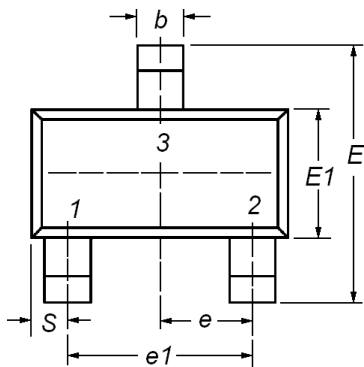


IEC61000-4-2 waveform

## Typical characteristics (Ta=25°C, unless otherwise noted)



## SOT-23 mechanical data



Dim	Millimeters		
	Min	TYP	Max
A	1.00	1.20	1.40
A1	0	0.05	0.10
A2	1.00	1.15	1.30
b	0.35	0.40	0.50
c	0.10	0.15	0.20
D	2.70	2.90	3.10
E	2.40	2.60	2.80
E1	1.40	1.50	1.60
e	0.85	1.00	1.15
e1	1.80	1.90	2.00
L1	0.40	.	
q	0°	5°	10°
S	0.45	0.50	0.55

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**SHANGHAI SINO-IC MICROELECTRONICS CO., LTD**

**Add:** Building 3, Room 3401-03, No.200 Zhangheng Road, ZhangJiang Hi-Tech Park, Pudong,  
Shanghai 201203, China

**Phone:** +86-21-33932402 33932403 33932405 33933508 33933608

**Fax:** +86-21-33932401

**Email:** [webmaster@sino-ic.com](mailto:webmaster@sino-ic.com)

**Website:** <http://www.sino-ic.com>

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