



## Features

- ◆ Transient protection for high speed data lines to IEC 61000-4-2 (ESD)  $\pm 30\text{kV}$  (air),  $\pm 30\text{kV}$  (contact) IEC 61000-4-4 (EFT) 40A (5/50ns)
- ◆ Working voltages : 3V
- ◆ Protects one bidirectional line or
- ◆ Low operating and clamping voltages
- ◆ Solid-state silicon avalanche technology

## Ordering Information

Part Number	Qty per Reel	Reel Size
ESDA5V3L	3000	7"

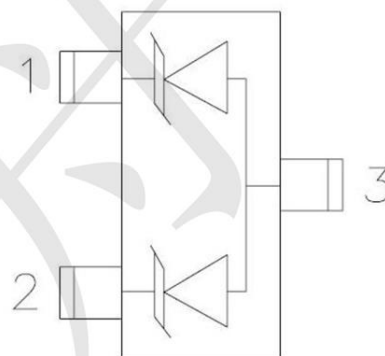
## Mechanical Characteristics

- ◆ Package: SOT23
- ◆ Lead Finish: Matte Tin
- ◆ UL Flammability Classification Rating 94V-0
- ◆ Pb-Free, Halogen Free, RoHS/WEEE Compliant

## Applications

- ◆ USB Power & Data Line Protection
- ◆ Monitors and Flat Panel Displays
- ◆ I<sup>2</sup>C Bus Protection
- ◆ Portable Instrumentation
- ◆ Set Top Box

## Dimensions and Pin Configuration



Circuit and Pin Schematic



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

Parameter	Symbol	Value	Unit
Peak Pulse Current (8/20μs)	Ipp	7	A
ESD per IEC 61000-4-2 (Air)	VESD	±30	kV
ESD per IEC 61000-4-2 (Contact)		±30	
Operating Temperature Range	TJ	-55 to +125	°C
Storage Temperature Range	Tstg	-55 to +150	°C

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

Type	IR(μA)	VBR(V)IT		It	VC(V)	Ipp(A)	C(pf)
	Vrwm	Min	Max	mA	Max		
ESDA5V3L	Max	4.8	6.0	1.0	13.5	7.4	70



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**Typical Performance Characteristics ( $T_A=25^\circ\text{C}$  unless otherwise Specified)**

Fig1. 8/20 $\mu\text{s}$  Pulse Waveform

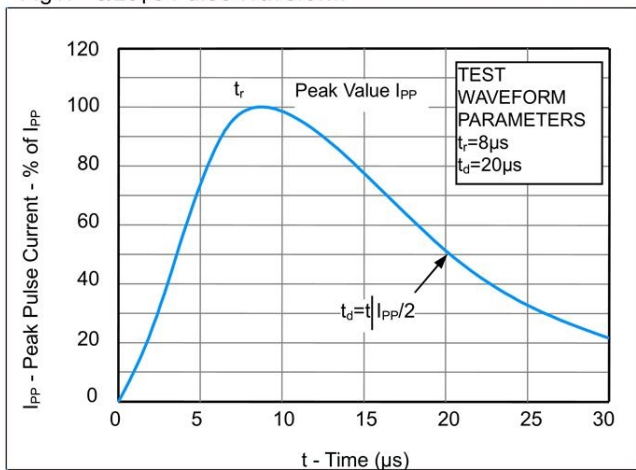


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

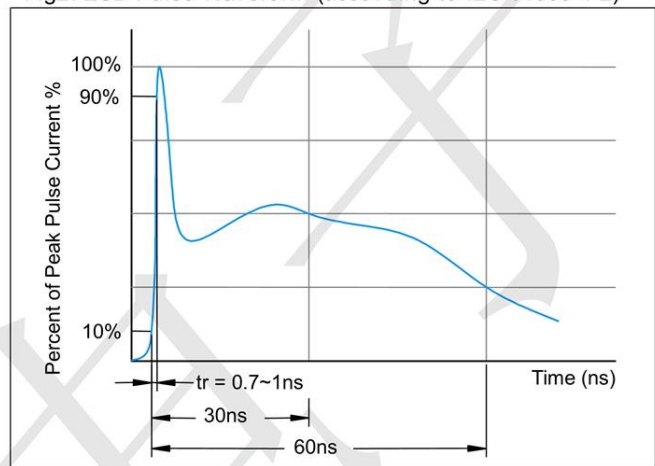


Fig3. Power Derating Curve

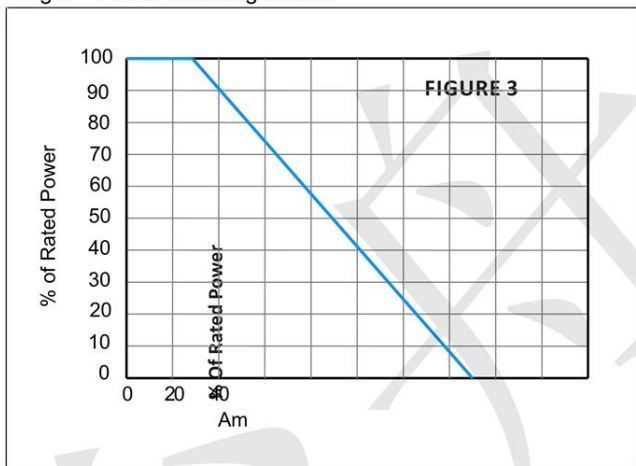
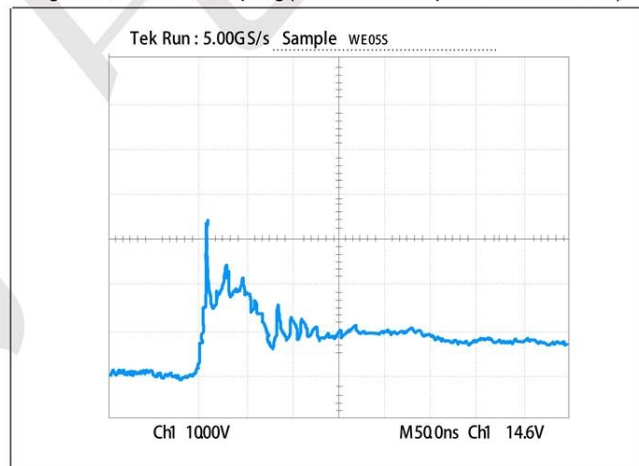


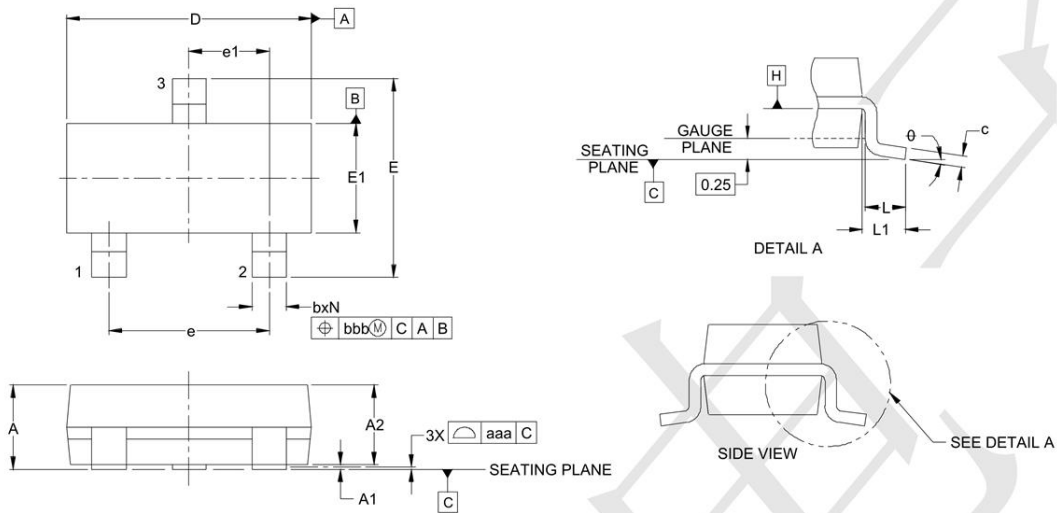
Figure 4: ESD Clamping (8kV Contact per IEC 61000-4-2)





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**Outline Drawing - SOT23**



**Land Pattern - SOT23**

