

## Features

- Ultra Low Capacitance 0.5 pF
- Low Clamping Voltage
- Small Body Outline Dimensions:  
0.039" x 0.024" (1.00 mm x 0.60 mm)
- Low Body Height: 0.016" (0.4 mm)
- Stand-off Voltage: 5 V
- Low Leakage
- Response Time is Typically < 1.0 ns
- IEC61000-4-2 Level 4 ESD Protection
- This is a Pb-Free Device
- S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.

## Ordering Information

Part Number	Qty per Reel	Reel Size
ESD5V0U05-923	8000	7"

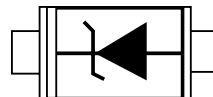
## Mechanical Characteristics

- JEDEC SOD-923 package
- Molding compound flammability rating: UL 94V-0

## Applications

- USB 2.0
- HDMI 1.3
- SATA and eSATA
- DVI
- IEEE 1394
- PCI Express
- Portable Electronics
- Notebooks

## Dimensions and Pin Configuration



**PROTECTION PRODUCTS**

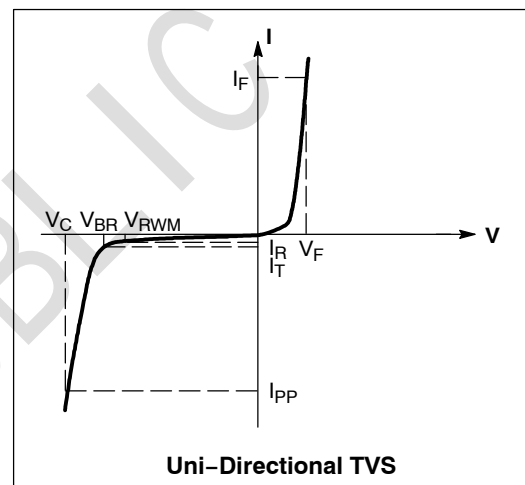
**Absolute Maximum Rating**

- Operating Junction & Storage Temperature: -55°C to +150°C

Parameter	Symbol	Limits	unit
IEC61000-4-2(ESD) Air Contact		$\pm 20$ $\pm 15$	KV
ESD Voltage per human body mode		16	KV
Peak Pulse Power(8/20us)	Ppp	100	W

**ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified**

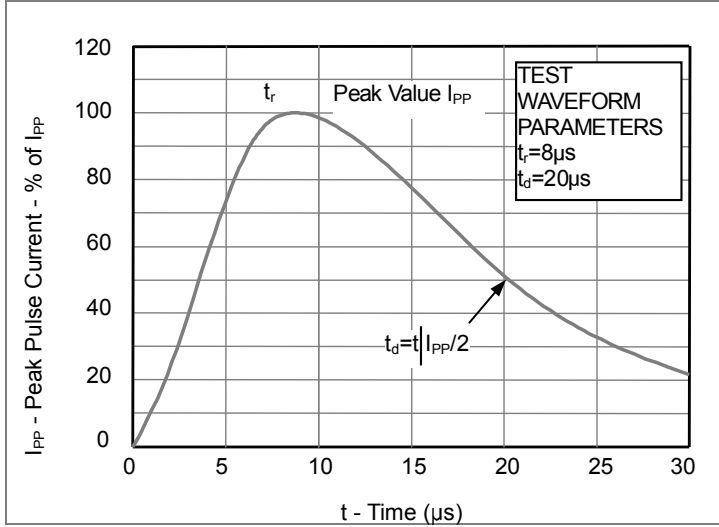
Symbol	Parameter
I <sub>PP</sub>	Maximum Reverse Peak Pulse Current
V <sub>C</sub>	Clamping Voltage @ I <sub>PP</sub>
V <sub>RWM</sub>	Working Peak Reverse Voltage
I <sub>R</sub>	Maximum Reverse Leakage Current @ V <sub>RWM</sub>
V <sub>BR</sub>	Breakdown Voltage @ I <sub>T</sub>
I <sub>T</sub>	Test Current
I <sub>F</sub>	Forward Current
V <sub>F</sub>	Forward Voltage @ I <sub>F</sub>
P <sub>pk</sub>	Peak Power Dissipation
C	Capacitance @ V <sub>R</sub> = 0 and f = 1.0 MHz



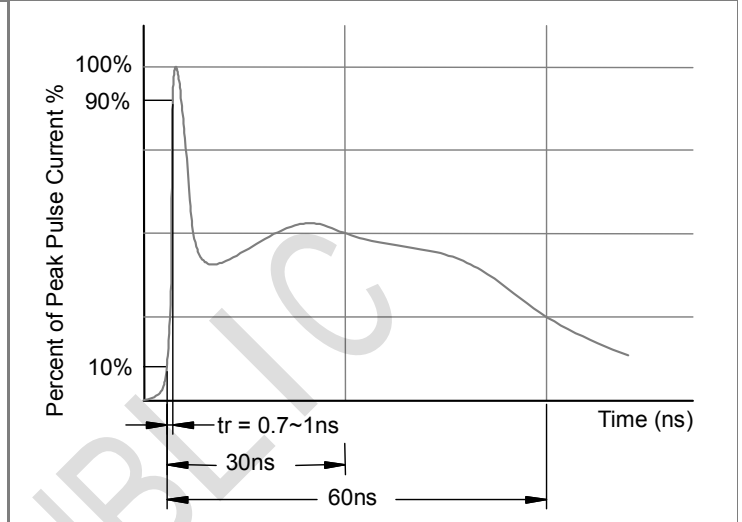
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Working Voltage	V <sub>RWM</sub>				5	V
Breakdown Voltage	V <sub>BR</sub>	I <sub>t</sub> = 1mA	5.4	7.0	8.5	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>RWM</sub> = 5V			1	μA
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 10mA		0.8	1.25	V
Clamping Voltage	V <sub>C</sub>	I <sub>PP</sub> = 1A t <sub>p</sub> = 8/20μS			14	V
Junction Capacitance	V <sub>C</sub>	I <sub>PP</sub> = 4A t <sub>p</sub> = 8/20μS			25	v
Junction Capacitance	C <sub>j</sub>	V <sub>R</sub> = 0V f = 1MHz		0.5		pF

**PROTECTION PRODUCTS**  
Typical characteristics

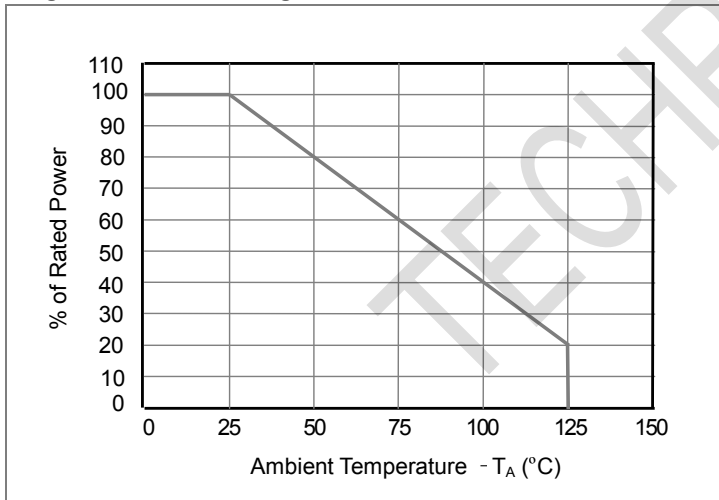
**Fig1. 8/20 $\mu$ s Pulse Waveform**



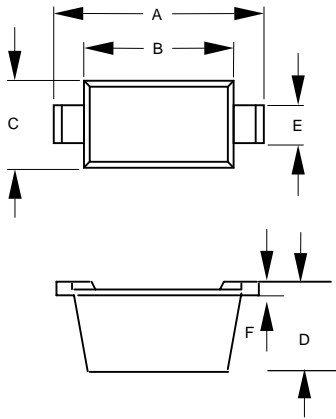
**Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)**



**Fig3. Power Derating Curve**



**Outline Drawing - SOD-923**



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.037	.041	0.95	1.05	
B	.030	.033	0.75	0.85	
C	.022	.026	0.55	0.65	
D	.014	.017	0.36	0.43	
E	.006	.010	0.15	0.25	
F	.003	.007	0.07	0.17	

**Land Pattern - SOD-923**

