

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
TPESD9L5.0T5G	8000	7"

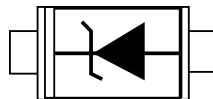
Mechanical Characteristics

- 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

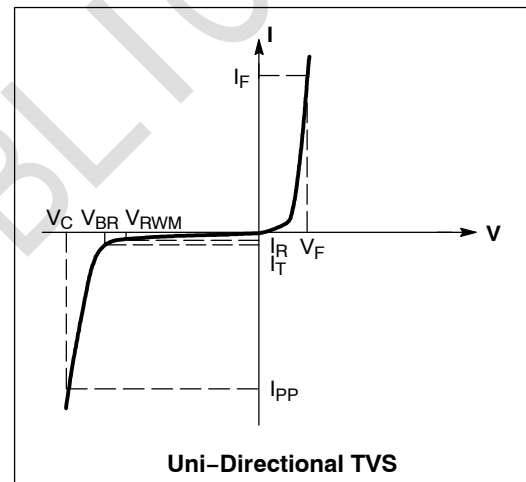
Absolute Maximum Rating

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

Parameter	Symbol	Limits	unit
IEC61000-4-2(ESD) Air Contact		± 20 ± 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_{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}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_F	Forward Current
V_F	Forward Voltage @ I_F
P_{pk}	Peak Power Dissipation
C	Capacitance @ $V_R = 0$ and $f = 1.0$ MHz



Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Working Voltage	V_{RWM}				5	V
Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$	5.4	7.0	8.5	V
Reverse Leakage Current	I_R	$V_{RWM} = 5\text{V}$			1	μA
Forward Voltage	V_F	$I_F = 10\text{mA}$		0.8	1.25	V
Clamping Voltage	V_C	$I_{PP} = 1\text{A}$ $t_p = 8/20\mu\text{S}$			14	V
Junction Capacitance	V_C	$I_{PP} = 4\text{A}$ $t_p = 8/20\mu\text{S}$			25	V
Junction Capacitance	C_j	$V_R = 0\text{V}$ $f = 1\text{MHz}$		0.5		pF

PROTECTION PRODUCTS
Typical characteristics

Fig1. 8/20 μ s Pulse Waveform

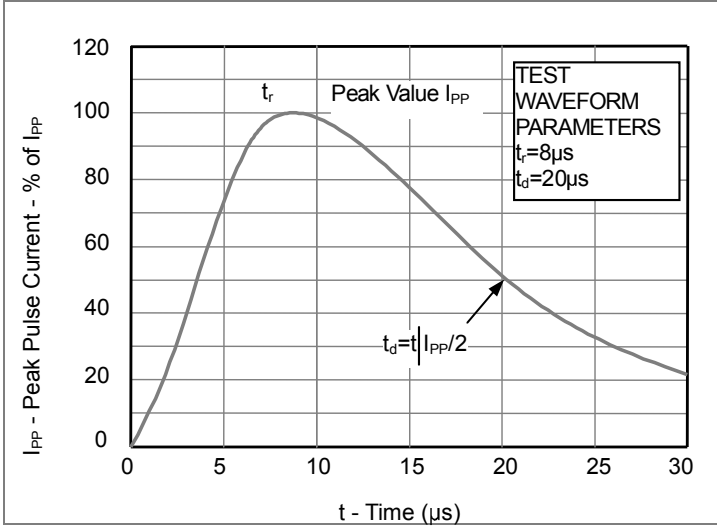


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

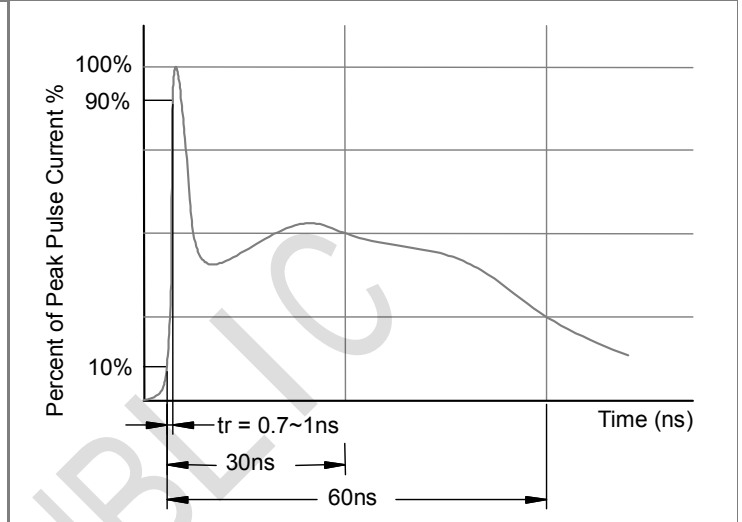
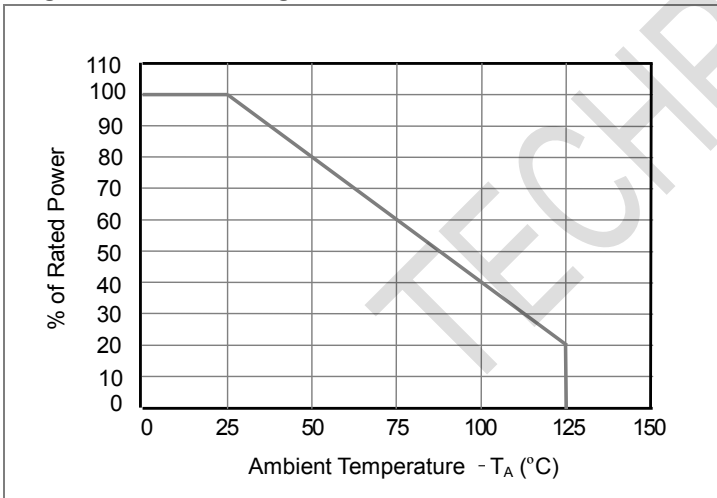
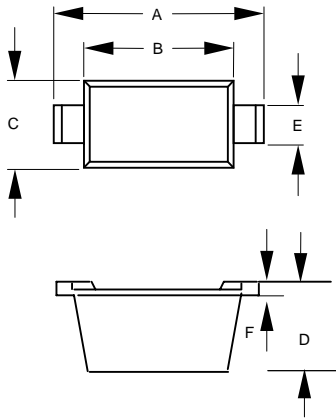


Fig3. Power Derating Curve

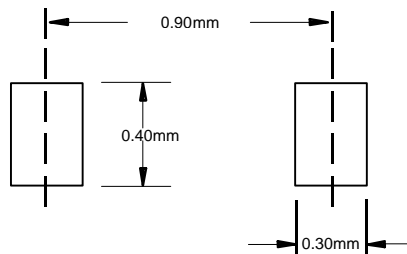


Outline Drawing - SOD-923



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



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