



SLMESD5V0D9 TVS Diodes for ESD Protection

SLMESD5V0D9 TVS Protection Diodes SOLA ESD Protection Diodes

General description

The SLMESD5V0D9 series is designed to protect voltage sensitive components from ESD and transient voltage events. Excellent clamping capability, low leakage, and fast response time, make these parts ideal for ESD protection on designs where board space is at a premium.

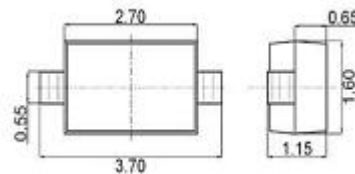
Features

- Stand-off Voltage: 5V-7.0V
- Peak power up to 1200 Watts@8x20us Pulse
- Low leakage
- Response time is typically <1ns
- ESD rating of Class 3(>16KV)per Human Body Model
- IEC61000-4-2 Level 4 ESD Protection
- IEC61000-4-4 Level 4 EFT Protection

Applications

- Cellular phones
- Portable devices
- Digital cameras
- Power supplies

Package Information



Marking





SLMESD5V0D9 TVS Diodes for ESD Protection

Absolute Ratings($T_{amb}=25^{\circ}C$)

Symbol	Parameter	Value	Units	
P_{PP}	Peak pulse power($TP=8/20\mu s$)	1200	W	
T_L	Maximum lead temperature for soldering during 10S	260	$^{\circ}C$	
T_{stg}	Storage temperature range	-55 to +155	$^{\circ}C$	
T_{OP}	Operating temperature range	-40 to +125	$^{\circ}C$	
T_j	Maximum junction temperature	150	$^{\circ}C$	
	IEC61000-4-2(ESD) air discharge	± 30	KV	
	Contact discharge	± 30		
	IEC61000-4-4(EFT)	65	A	
	ESD voltage	Per Human Body Model	16	KV
		Per Machine Model	400	V

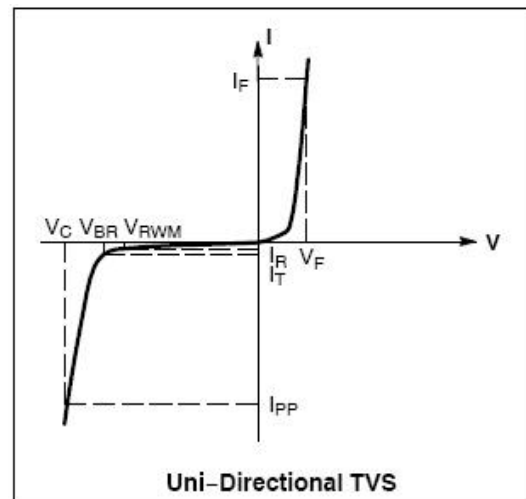
ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}C$ unless noted, $V_F=0.9V$ Max @ $I_F=10mA$ for all types)

	V_{RWM}	$I_R(\mu A)$	$V_{BR}(V)$	I_T	$V_C(V)@$	$V_C(V)@$	I_{PP}	P_{PK}	C
	(V)	@ V_{RWM}	@ I_T		$I_{PP}=5A$	Max I_{PP}	(A)	(W)	(pF)
	Max	Max	Min	mA	Typ	Max	Max	Max	Typ
SLMESD5V0D9	5.0	2	6.2	1.0	9.0	23	70	1200	700

ELECTRICAL CHARACTERISTICS

($T_A=25^{\circ}C$ unless otherwise noted)

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	Max Capacitance @ $V_R=0$ and $f=1MHz$



*The “G” suffix indicates Pb-Free package available.

**Other voltages available upon request

1. Surge current waveform per Figure 1.
2. V_{BR} is measured with a pulse test current I_T at an ambient temperature of 25°C

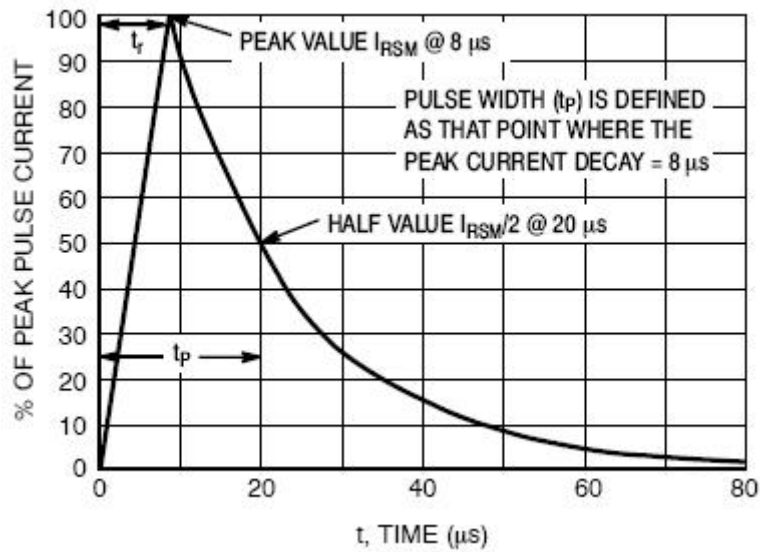
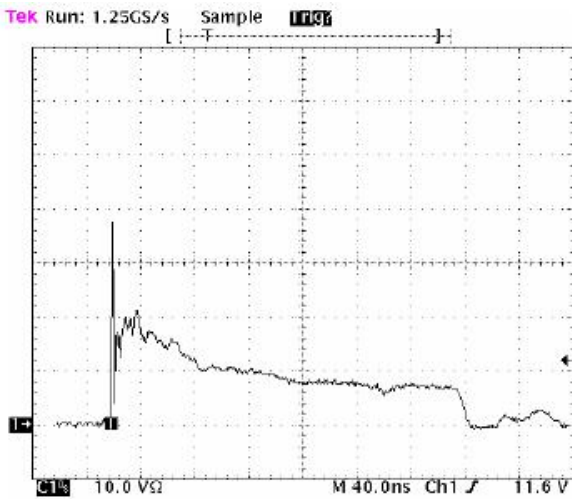
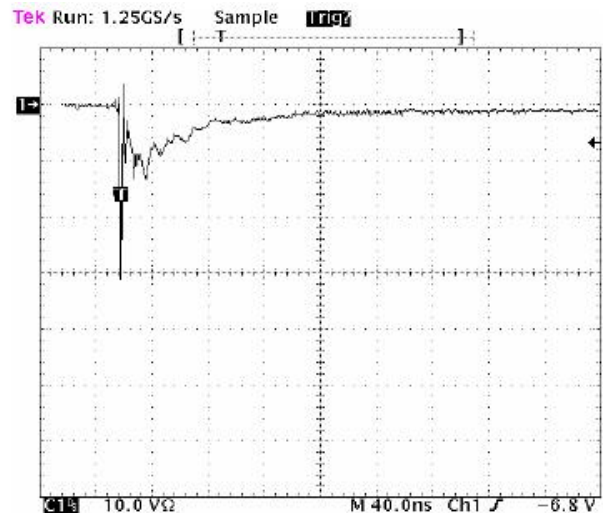


Figure 1 8x20us Pulse Waveform



**Figure 2 Positive 8KVcontact per
IEC 61000-4-2-ESD**



**Figure 3 Negative 8KVcontact per
IEC 61000-4-2-ESD**