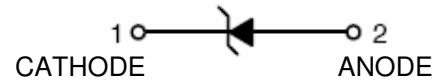


# LTVS8BH7.9T5G

# LTVS8BH7.9T5G

### Features

- 7.9V Uni- directional TVS Diode
- Low clamping voltage
- Complies with IEC 61000-4-2 standards:  
     Air discharge:  $\pm 30\text{kV}$   
     Contact discharge:  $\pm 30\text{kV}$
- RoHS Compliant and Halogen Free.



### Ordering information

Device	Marking	Shipping
LTVS8BH7.9T5G	BH	10000/Tape&Reel

### Absolute Maximum Ratings ( $T_A=25^\circ\text{C}$ unless otherwise specified)

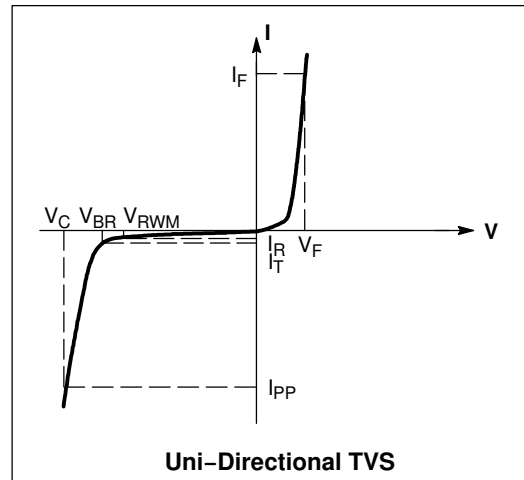
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 $\mu\text{s}$ )	Ppk	400	W
Peak Pulse Current (8/20 $\mu\text{s}$ )	I <sub>PP</sub>	45	A
Operating Temperature Range	T <sub>J</sub>	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	T <sub>stg</sub>	-55 to +150	$^\circ\text{C}$

# LTVS8BH7.9T5G

## Electrical Characteristics

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

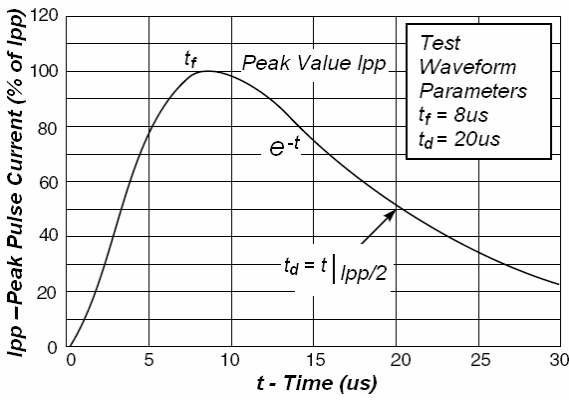
Symbol	Parameter
$I_{PP}$	Maximum Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{PP}$
$V_{RWM}$	Working Peak Reverse Voltage
$I_R$	Maximum Reverse Leakage Current @ $V_{RWM}$
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_T$	Test Current
$I_F$	Forward Current
$V_F$	Forward Voltage @ $I_F$
$P_{pk}$	Peak Power Dissipation
C	Capacitance @ $V_R = 0$ and $f = 1.0$ MHz



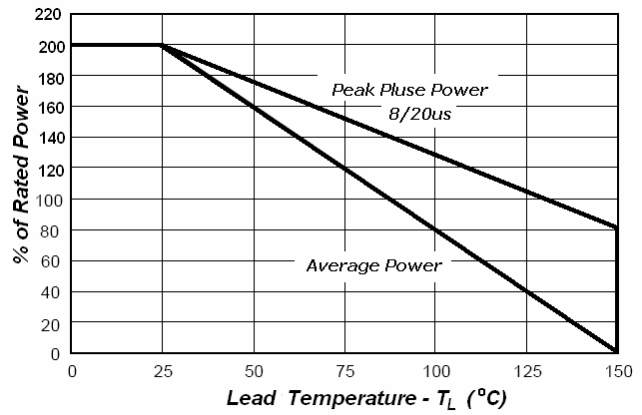
## Electrical Characteristics ( $T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	$V_{RWM}$			7.9	V	
Breakdown Voltage	$V_{BR}$	8	8.5	9	V	$I_T = 1\text{ mA}$
Reverse Leakage Current	$I_R$			250	nA	$V_R = 7.9\text{V}$
Clamping Voltage	$V_C$		8.4		V	$I_{PP} = 4\text{A}(8 \times 20\mu\text{s pulse})$
Clamping Voltage	$V_C$			9.5	V	$I_{PP} = 10\text{A}(8 \times 20\mu\text{s pulse})$
Clamping Voltage	$V_C$			10.5	V	$I_{PP} = 25\text{A}(8 \times 20\mu\text{s pulse})$
ESD Clamping Voltage	$V_C$			10	V	$I_{TLP} = 4\text{A}$ , $t_{lp} = 0.2/100\text{ns(TLP)}$
ESD Clamping Voltage	$V_C$			10.2	V	$I_{TLP} = 16\text{A}$ , $t_{lp} = 0.2/100\text{ns(TLP)}$
Dynamic Resistance	$R_{(dynamic)}$		0.03		$\Omega$	$t_{lp} = 0.2/100\text{ns(TLP)}$
Forward Voltage	$V_F$			1.2	V	$I_F = 10\text{mA}$
Junction Capacitance	CJ		120	150	pF	$V_R = 0\text{V}$ , $f = 1\text{MHz}$

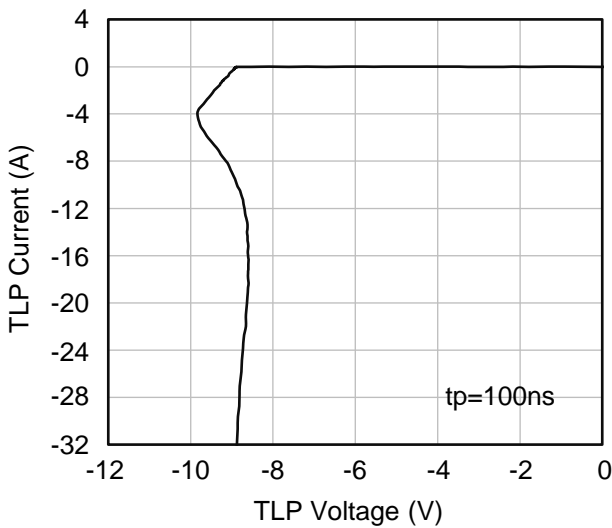
# LTVS8BH7.9T5G



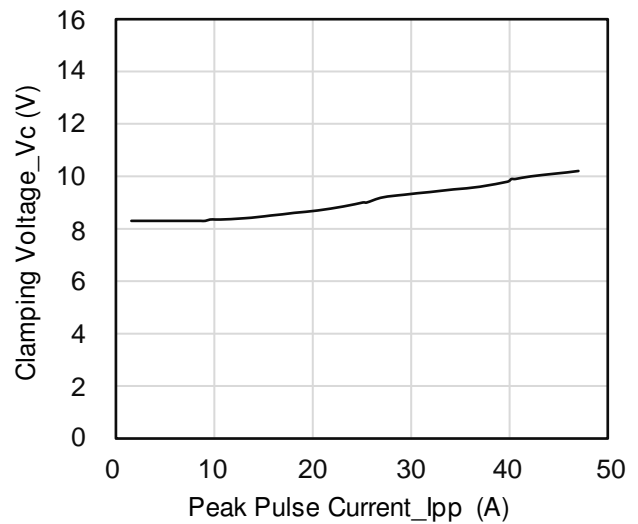
**Fig1. Pulse Waveform**



**Fig2. Power Derating Curve**



**Fig 3. TLP Measurement**



**Fig4. Clamping Voltage vs. Peak Pulse Current**



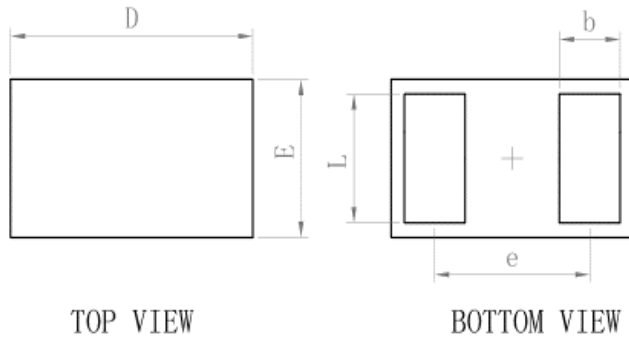
**Figure 5. ESD Clamping Voltage Screenshot Positive 8 kV Contact per IEC61000-4-2**



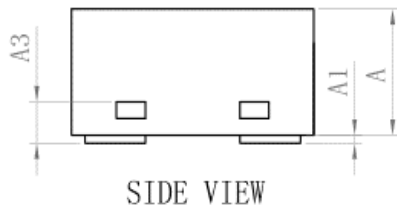
**Figure 6. ESD Clamping Voltage Screenshot Negative 8 kV Contact per IEC61000-4-2**

# LTVS8BH7.9T5G

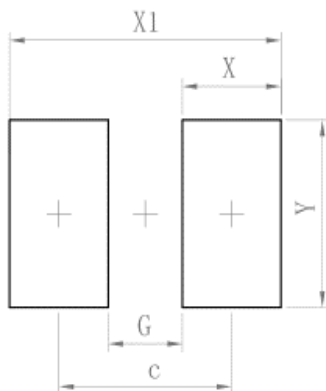
## OUTLINE AND DIMENSIONS



SOD882B			
Dim	Min	Typ.	Max
D	0.95	1.00	1.05
E	0.55	0.60	0.65
e	-	0.64	-
L	0.44	0.49	0.54
b	0.20	0.25	0.30
A	0.30	0.35	0.40
A1	0	-	0.05
A3	0.127REF.		
All Dimensions in mm			



## SOLDERING FOOTPRINT



Dimensions	(mm)
c	0.70
G	0.30
X	0.40
X1	1.10
Y	0.70