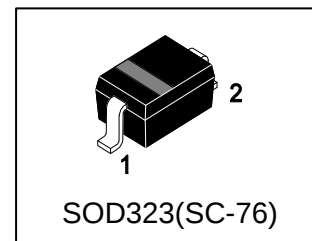


LTVS32H24CT1G

1 Lines, Bi-directional TVS Diode

1. FEATURES

- Low capacitance
- Low clamping voltage
- Ultra-low leakage current
- Complies with IEC 61000-4-2 standards: Air discharge: $\pm 30\text{kV}$
Contact discharge: $\pm 30\text{kV}$
- We declare that the material of product compliance with
RoHS requirements and Halogen Free.



2. APPLICATIONS

- STB
- Router
- Modem
- Networking
- 10/100/1000 Ethernet

3. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
LTVS32H24CT1G	24C	3000/Tape&Reel

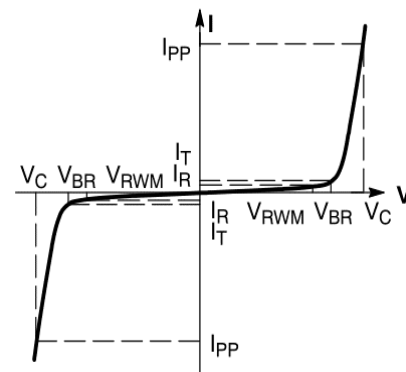
4. MAXIMUM RATINGS($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Limits	Unit
IEC 61000-4-2 (ESD) Contact		± 30	KV
Air		± 30	
Peak pulse power@8/20 μs (Note 1)	PPP	260	W
Peak pulse current @8/20 μs (Note 1)	IPP	6.5	A
Operating Temperature Range	TJ	-55~+150	$^\circ\text{C}$
Storage Temperature Range	Tstg	-55~+150	$^\circ\text{C}$

Note 1. Surge current waveform per Figure 1 according to IEC 61000-4-5.

5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

Symbol	Parameter
IPP	Maximum Reverse Peak Pulse Current
VC	Clamping Voltage @ IPP
VRWM	Working Peak Reverse Voltage
IR	Maximum Reverse Leakage Current @ VRWM
VBR	Breakdown Voltage @ IT
IT	Test Current
Ppk	Peak Power Dissipation
C	Capacitance @ VR = 0 and f = 1.0 MHz



6. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse stand-off voltage	VRWM				24	V
Breakdown Voltage	VBR	IT = 1mA	25.9		29	V
Reverse leakage current	IR	VR = 24V			0.05	μA
Clamping Voltage(Note 1)	VC1	IPP = 6.5A, tp=8/20μs			40	V
Clamping Voltage,TLP	VC2	IPP= 4 A, tp=100ns		30		V
		IPP= 8 A, tp=100ns		32		
		IPP= 16 A, tp=100ns		35		
Dynamic resistance	RDYN			0.6		Ω
Junction Capacitance	Cj	VR = 0V, f = 1MHz			25	pF

Note 1.Surge current waveform per Figure 1 according to IEC 61000-4-5.

7. ELECTRICAL CHARACTERISTICS CURVES

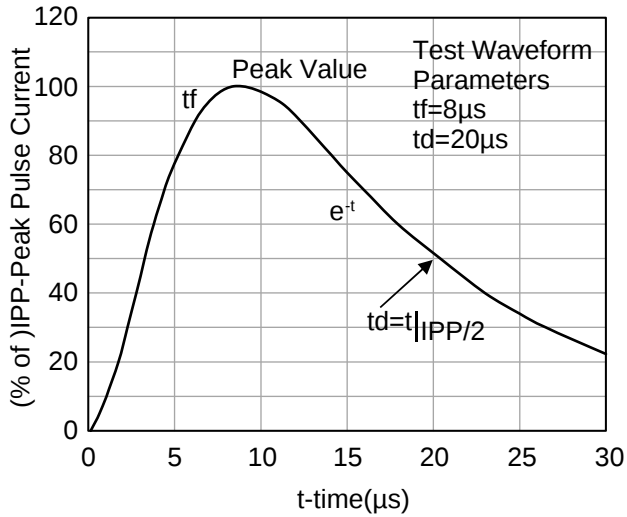


Figure 1. Pulse Waveform according to IEC 61000-4-5

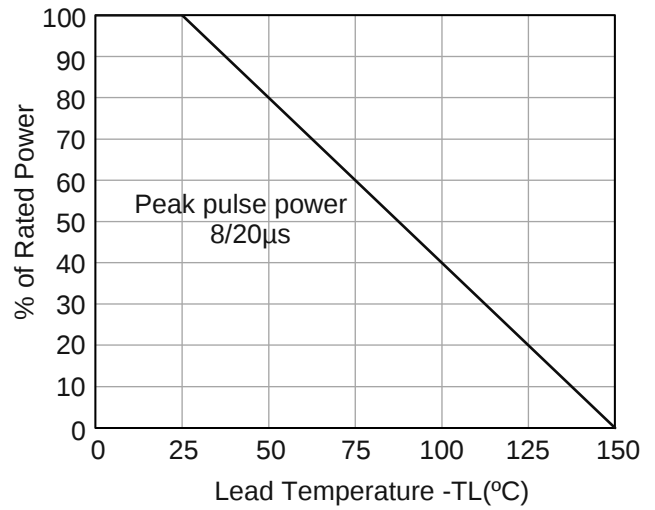


Figure 2. Power Derating Curve

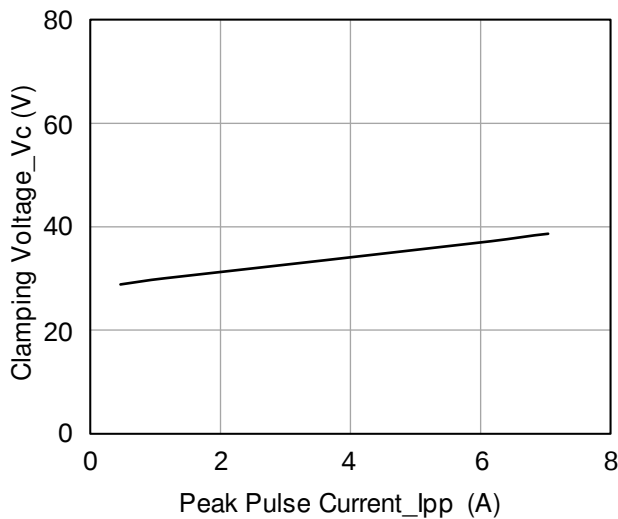


Figure 3. Clamping Voltage vs. Peak Pulse Current according to IEC 61000-4-5.

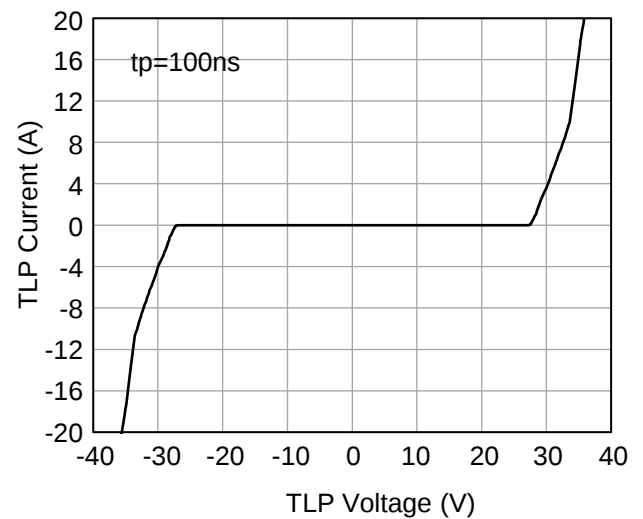


Figure 4. TLP Measurement

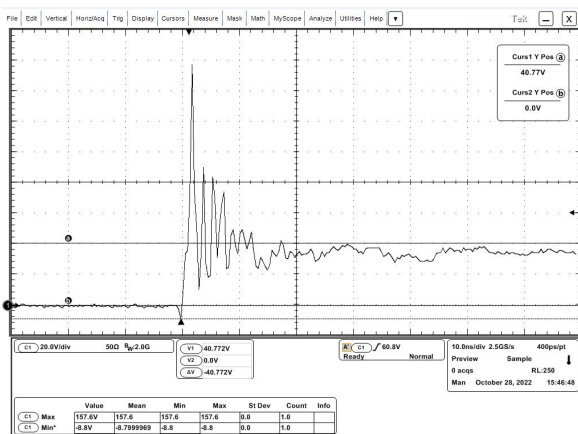


Figure 5. ESD Clamping Voltage Screenshot Positive 8 kV Contact per IEC61000-4-2

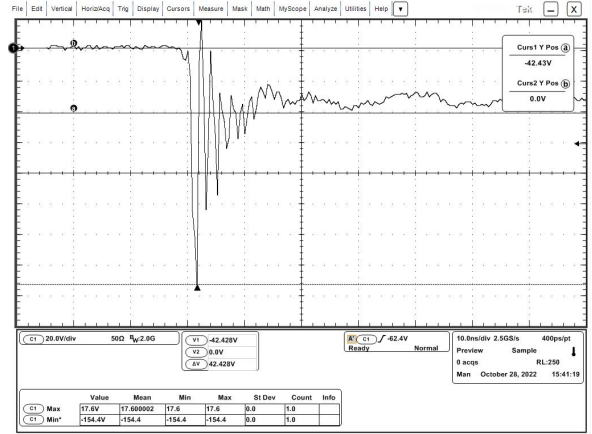
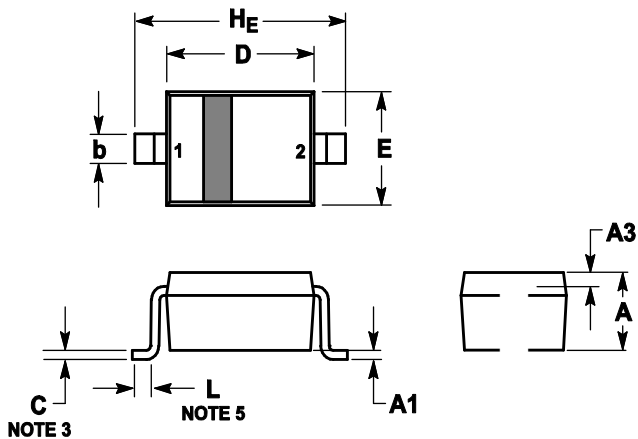


Figure 6. ESD Clamping Voltage Screenshot Negative 8 kV Contact per IEC61000-4-2

8.OUTLINE AND DIMENSIONS

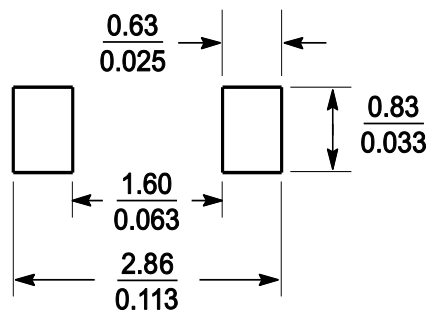
Notes:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.



DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.8	0.9	1	0.031	0.035	0.04
A1	0	0.05	0.1	0	0.002	0.004
A3	0.15REF			0.006REF		
b	0.25	0.32	0.4	0.01	0.012	0.016
C	0.089	0.12	0.177	0.003	0.005	0.007
D	1.6	1.7	1.8	0.062	0.066	0.07
E	1.15	1.25	1.35	0.045	0.049	0.053
L	0.08			0.003		
H _E	2.3	2.5	2.7	0.09	0.098	0.105

9.SOLDERING FOOTPRINT



DISCLAIMER

- Curve guarantee in the specification. The curve of test items with electric parameter is used as quality guarantee. The curve of test items without electric parameter is used as reference only.
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- All information contained in this document is current as of the issuing date and subject to change without any prior notice. Before purchasing or using LRC's Products, please confirm the latest information with a LRC sales representative.