

LTVS20H15T5G

1-Line Uni-directional TVS Diode

The TVS20H15 is an uni-directional TVS diode, utilizing leading monolithic silicon technology to provide fast response time and low ESD clamping voltage, making this device an ideal solution for protecting voltage sensitive data and power line. The TVS20H15 complies with the IEC 61000-4-2 (ESD) standard with $\pm 30\text{kV}$ air and $\pm 30\text{kV}$ contact discharge. The high ESD surge protection make TVS20H15 an ideal choice to protect cell phone, digital cameras, audio players and many other portable applications.

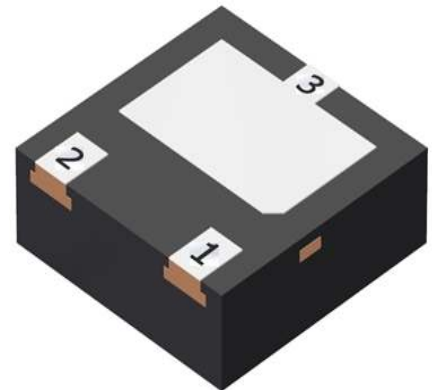
Features

- Protects one data or power line
- Low clamping voltage
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 30\text{kV}$
 - Contact discharge: $\pm 30\text{kV}$
- RoHS Compliant

Applications

- Mobile Phones
- Battery Protection
- Power Line Protection
- Vbat pin for Mobile Devices
- Hand Held Portable Applications

LTVS20H15T5G



DFN2020-3



Ordering information

Device	Marking	Shipping
LTVS20H15T5G	C4	3000/Tape&Reel

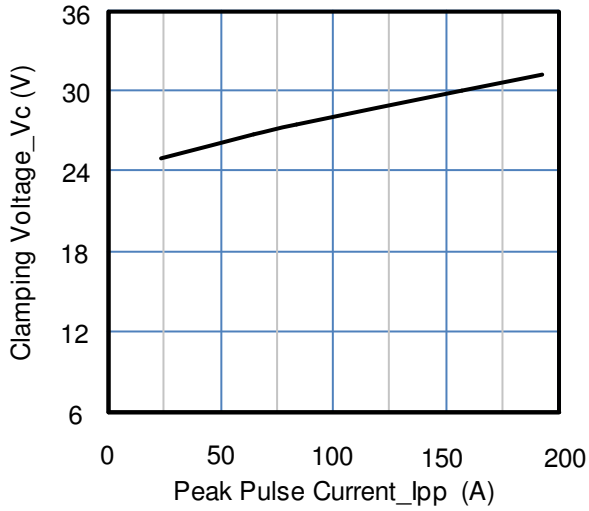
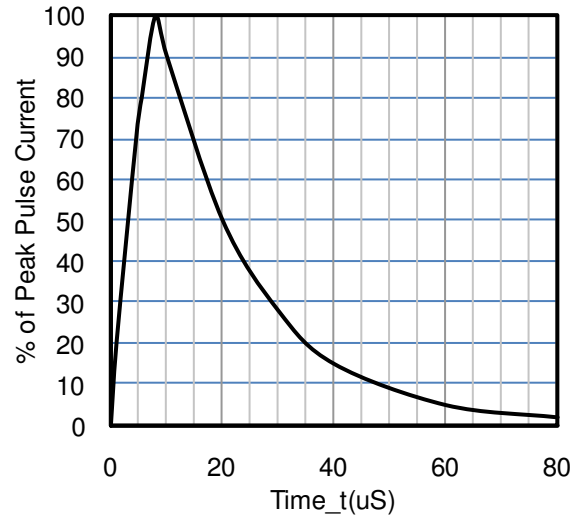
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Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	Ppk	6000	W
Peak Pulse Current (8/20 μs)	Ipp	180	A
ESD per IEC 61000-4-2 (Air)	VESD	± 30	kV
ESD per IEC 61000-4-2 (Contact)		± 30	
Operating Temperature Range	TJ	-55 to +125	$^{\circ}\text{C}$
Storage Temperature Range	Tstg	-55 to +150	$^{\circ}\text{C}$

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

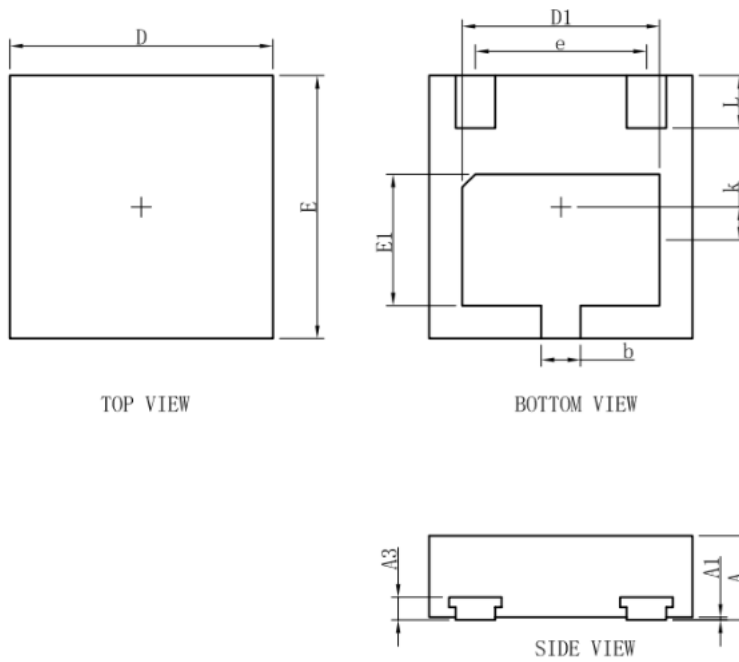
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	VRWM			15	V	
Breakdown Voltage	VBR	16		19	V	$I_R = 1\text{mA}$
Reverse Leakage Current	I_R			0.5	μA	$V_R = 15\text{V}$
Forward Voltage	V_F		0.75	1.2	V	$I_F = 10\text{mA}$
Clamping Voltage	V_C		30		V	$I_{PP} = 150\text{A}$ (8 x 20 μs pulse)
Junction Capacitance	C_J		1000		pF	$V_R = 0\text{V}$, $f = 1\text{MHz}$

LTVS20H15T5G**Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise Specified)****Fig 1 .Clamping Voltage vs. Peak Pulse Current****Fig 2. 8 X 20 μS Pulse Waveform**

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OUTLINE AND DIMENSIONS

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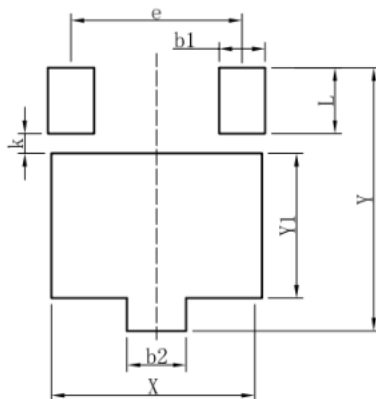


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Dim	Min.	Typ.	Max.
A	0.60	0.65	0.70
A1	0.00	0.02	0.05
A3	0.152REF.		
D	1.95	2.00	2.05
E	1.95	2.00	2.05
D1	1.45	1.50	1.55
E1	0.95	1.00	1.05
b	0.25	0.30	0.35
e	1.30TYP.		
k	0.20	0.25	0.30
L	0.35	0.40	0.45

All Dimensions in mm

SOLDERING FOOTPRINT

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DFN2020-3	
Dim	(mm)
X	1.60
Y	2.00
b1	0.35
b2	0.45
L	0.50
Y1	1.10
k	0.15
e	1.30