

## Features

- ◆ 150W (8x20us) Peak Pulse Power
- ◆ Low Clamping Voltage
- ◆ SOD-323 Package
- ◆ RoHS Compliant
- ◆ MatteT in Lead finish (Pb-Free)
- ◆ Protect Onel/O or Power Line
- ◆ Meet IEC61000-4-2Level4:  
 Contact Discharge>30kV  
 Air Discharge>30 kV



PIN Diagram

## Applications

- ◆ SmartPhones
- ◆ LaptopComputers
- ◆ PortableElectronics

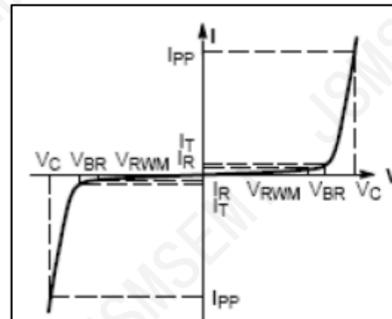


Circuit Diagram

## Maximum Ratings(Ta=25°C)

Symbol	Parameter	Value	Unit
TJ	Junction Temperature	-55 to +150	°C
TSTG	Storage Temperature	-55 to +150	°C
IppMax	Maximum Peak Pulse	10	A
PPK	Current Peak PulsePower	150	W

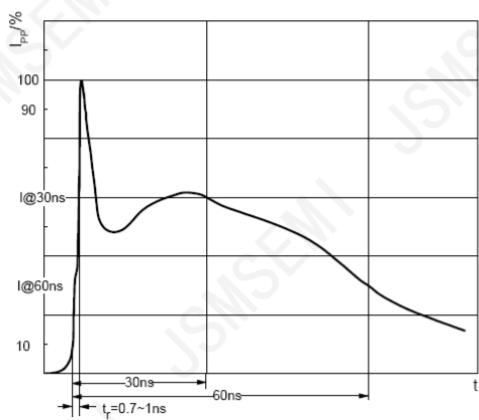
Symbol	Parameter
$V_C$	Clamping Voltage @ $I_{PP}$
$I_{PP}$	Peak Pulse Current
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_T$	Test Current
$I_R$	Reverse Leakage Current @ $V_{RWM}$
$V_{RWM}$	Reverse Standoff Voltage



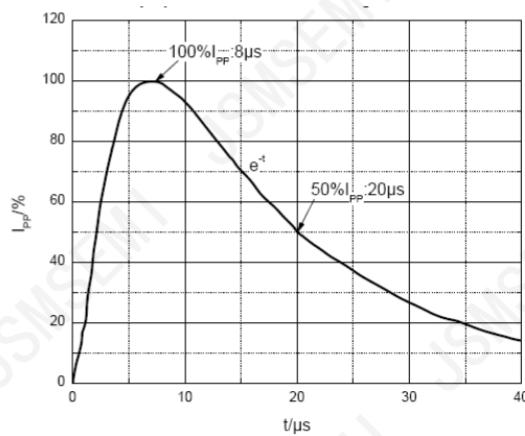
V-I characteristics for a Bi-directional TVS

### Electrical Characteristics( $T_a=25^{\circ}\text{C}$ )

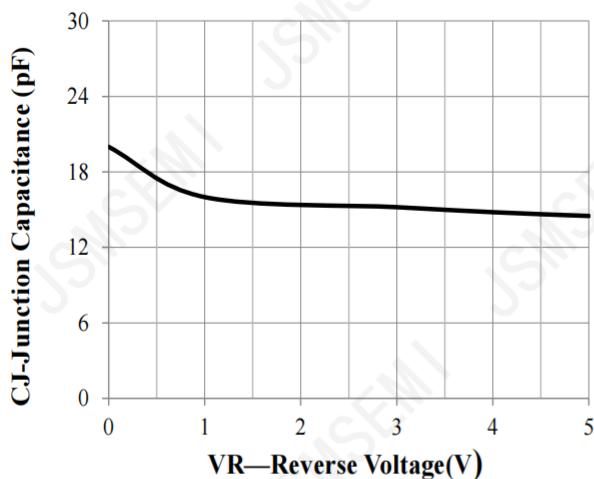
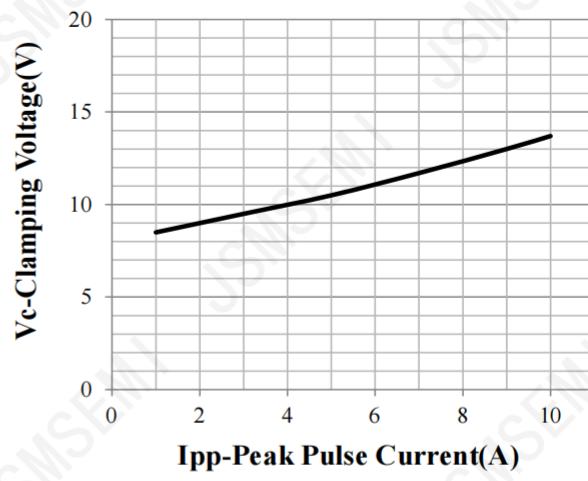
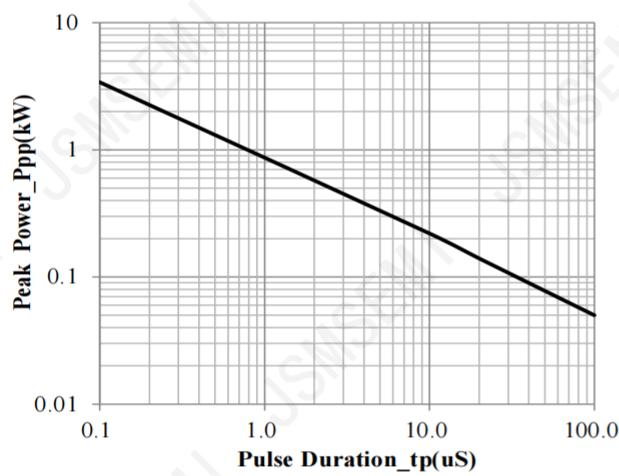
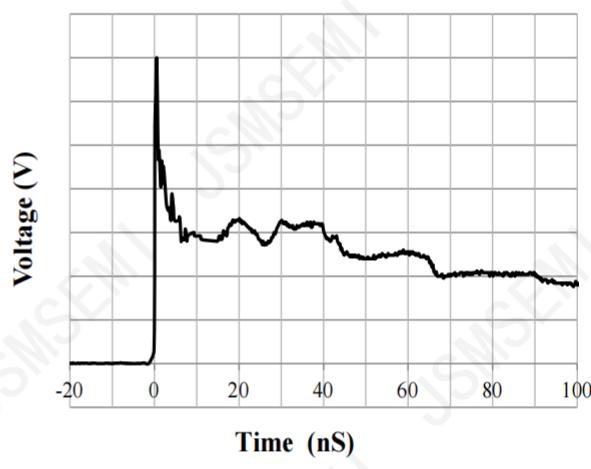
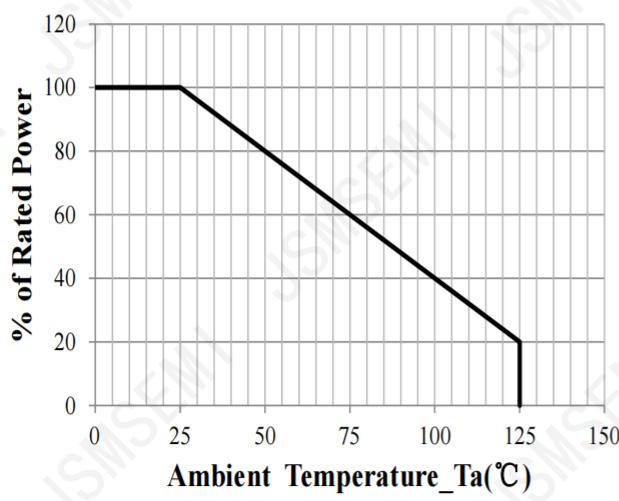
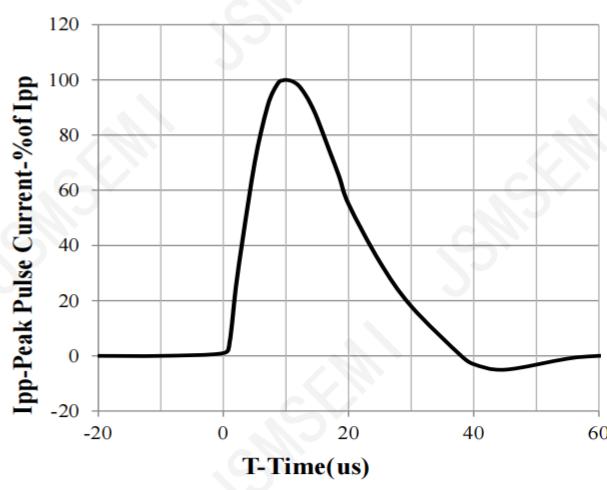
Symbol	Parameter	Conditions	Min	Typ	Max	Unit
VRWM	Reverse Working Peak Voltage				5.0	V
VBR	Reverse Breakdown Voltage	$I_T = 1\text{mA}$	6.2	7	8.5	V
IR	Reverse Leakage Current	$VRWM = 5.0\text{V}$			1	$\mu\text{A}$
VC	Clamping Voltage	$IPP = 1\text{A}$ (8/20 $\mu\text{s}$ )			9	V
VC	Clamping Voltage	$IPP = 10\text{A}$ (8/20 $\mu\text{s}$ )			15	V
IPP	Peak Pulse Current	$t_p = 8/20\mu\text{s}$			10	A
CJ	Capacitance	$VR = 0\text{V}$ , $f = 1\text{MHz}$			25	pF



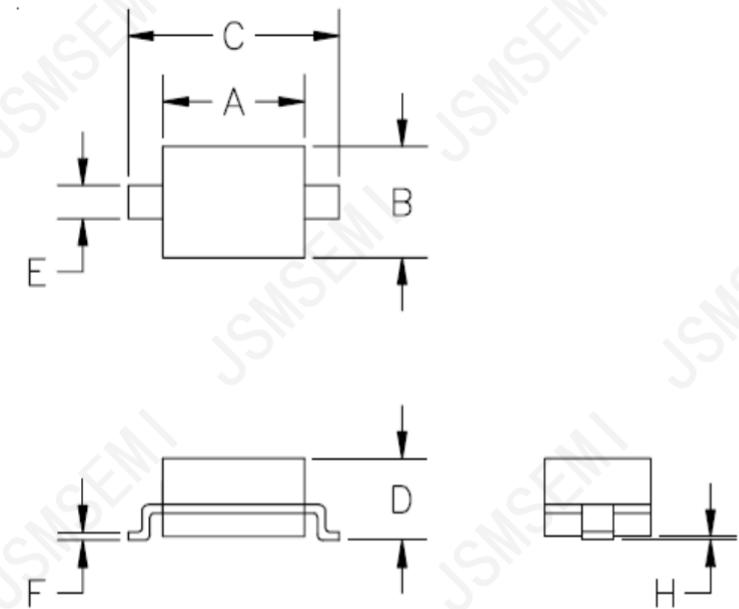
ESD pulse waveform according to IEC61000-4-2


 8/20 $\mu\text{s}$  pulse waveform according to IEC 61000-4-5

## Typical Performance Characteristics (TA =25°C unless otherwise Specified)


**Junction Capacitance vs. Reverse Voltage**

**Clamping Voltage vs. Peak Pulse Current**

**Peak Pulse Power vs. Pulse Time**

**IEC61000-4-2 Pulse Waveform**

**Power Derating Curve**

**8 X 20us Pulse Waveform**

## SOD-323 Dimension



DIM <sup>N</sup>	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.060	.071	1.5	1.8	—
B	.045	.054	1.2	1.4	—
C	.090	.107	2.3	2.7	—
D	—	.043	—	.11	—
E	.012	.016	0.3	0.4	—
F	.004	.010	.10	.25	—
H	—	.004	—	.10	—

CONTROLLING DIMENSION: MILLIMETERS

## Revision History

Rev.	Change	Date
V1.0	Initial version	2/23/2024

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