

Features

- ◆ 150W (8x20us) PeakPulse 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

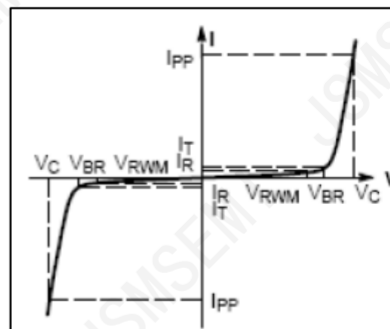


Circuit Diagram

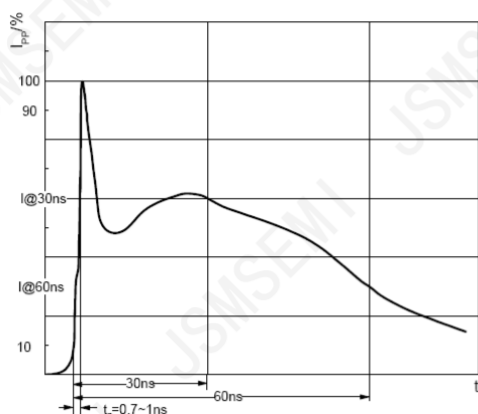
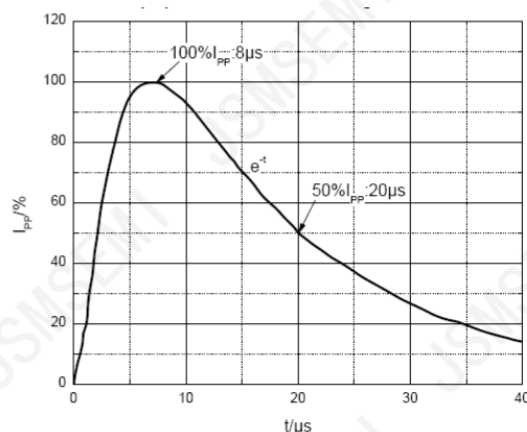
Maximum Ratings(Ta=25°C)

Symbol	Parameter	Value	Unit
TJ	JunctionTemperature	-55 to+150	°C
TSTG	StorageTemperature	-55 to+150	°C
IppMax	MaximumPeakPulseCurrent	10	A
PPK	PeakPulsePower	150	W

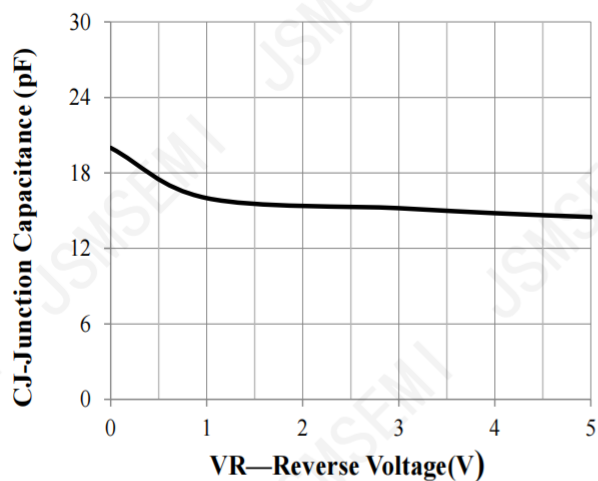
Symbol	Parameter
V_C	Clamping Voltage @ I_{PP}
I_{PP}	Peak Pulse Current
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_R	Reverse Leakage Current @ V_{RWM}
V_{RWM}	Reverse Standoff Voltage


V-I characteristics for a Bi-directional TVS
Electrical Characteristics(Ta=25°C)

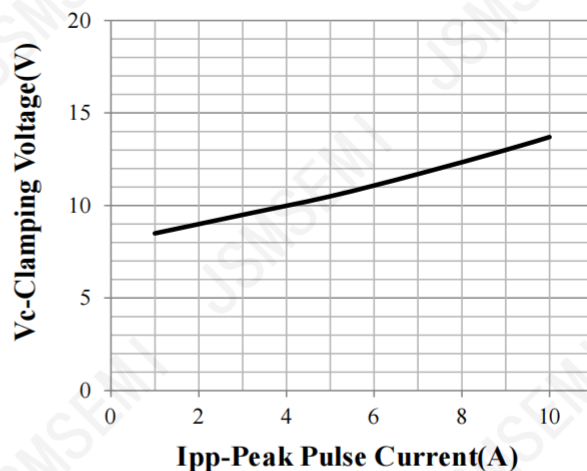
Symbol	Parameter	Conditions	Min	Typ	Max	Unit
V_{RWM}	Reverse Working Peak Voltage				5.0	V
V_{BR}	Reverse Breakdown Voltage	$I_T = 1\text{mA}$	6.2	7	8.5	V
I_R	Reverse Leakage Current	$V_{RWM} = 5.0\text{V}$			1	μA
V_C	Clamping Voltage	$I_{PP} = 1\text{A}$ (8/20 μs)			9	V
V_C	Clamping Voltage	$I_{PP} = 10\text{A}$ (8/20 μs)			15	V
I_{PP}	Peak Pulse Current	μs 'tp = 8/20 μs			10	A
C_J	Capacitance	$V_R = 0\text{V}$, $f = 1\text{MHz}$		25		pF


ESD pulse waveform according to IEC61000-4-2

8/20 μs pulse waveform according to IEC 61000-4-5

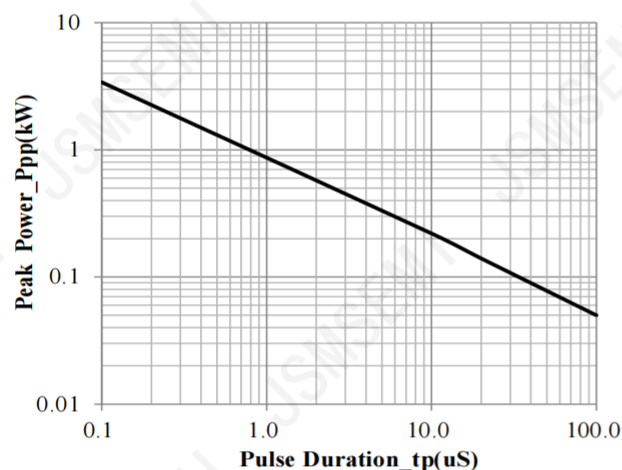
Typical Performance Characteristics (TA =25°C unless otherwise Specified)



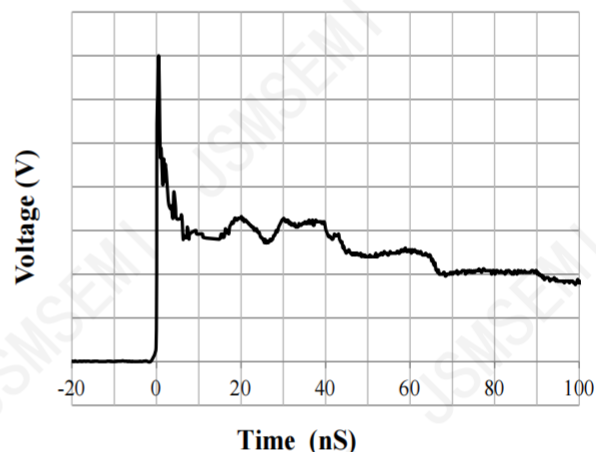
Junction Capacitance vs. Reverse Voltage



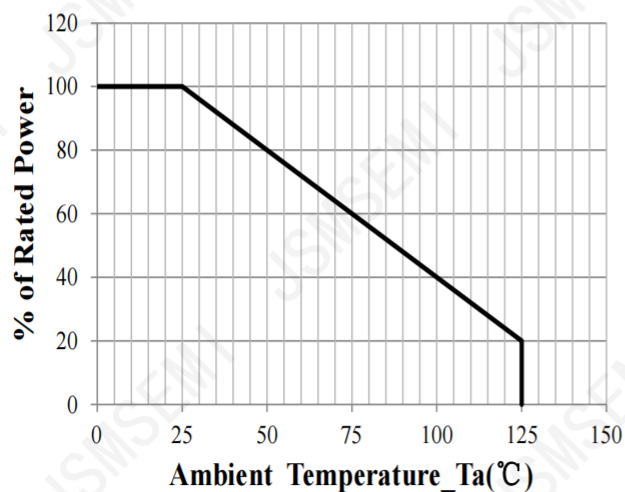
Clamping Voltage vs. Peak Pulse Current



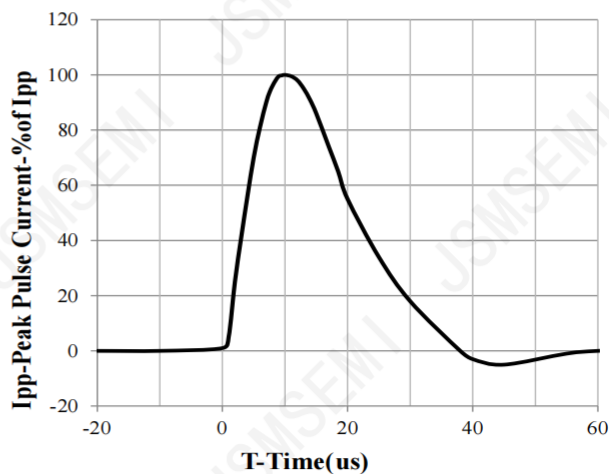
Peak Pulse Power vs. Pulse Time



IEC61000-4-2 Pulse Waveform

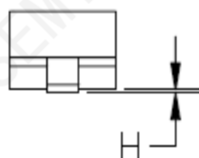
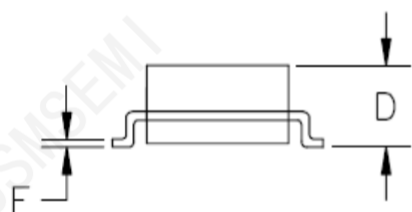
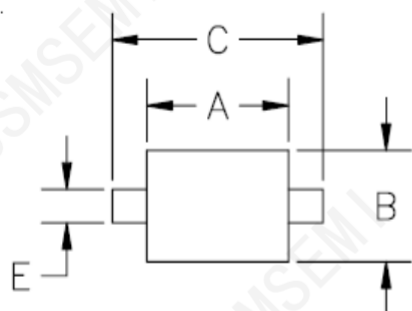


Power Derating Curve



8 X 20us Pulse Waveform

SOD-323 Dimension



DIM ^N	INCHES		MM [1]		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	—	1.1	—
E	.012	.016	0.3	0.4	—
F	.004	.010	.10	.25	—
H	—	.004	—	.10	—

[1] CONTROLLING DIMENSION: MILLIMETERS

Revision History

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

Important Notice

JSMSEMI Semiconductor (JSMSEMI) PRODUCTS ARE NEITHER DESIGNED NOR INTENDED FOR USE IN MILITARY AND/OR AEROSPACE, AUTOMOTIVE OR MEDICAL DEVICES OR SYSTEMS UNLESS THE SPECIFIC JSMSEMI PRODUCTS ARE SPECIFICALLY DESIGNATED BY JSMSEMI FOR SUCH USE. BUYERS ACKNOWLEDGE AND AGREE THAT ANY SUCH USE OF JSMSEMI PRODUCTS WHICH JSMSEMI HAS NOT DESIGNATED FOR USE IN MILITARY AND/OR AEROSPACE, AUTOMOTIVE OR MEDICAL DEVICES OR SYSTEMS IS SOLELY AT THE BUYER' S RISK.

JSMSEMI assumes no liability for application assistance or customer product design. Customers are responsible for their products and applications using JSMSEMI products.

Resale of JSMSEMI products or services with statements diferent from or beyond the parameters stated by JSMSEMI for that product or service voids all express and any implied warranties for the associated JSMSEMI product or s ervice. JSMSEMI is not responsible or liable for any such statements.

JSMSEMI All Rights Reserved. Information and data in this document are owned by JSMSEMI wholly and may not be edited, reproduced, or redistributed in any way without the express written consent from JSMSEMI.

Any and all information described or contained herein are subject to change without notice due to product/technology improvement, etc. When designing equipment, refer to the "Delivery Specification" for the JSMSEMI product that you intend to use.

For additional information please contact Kevin@jsemsemi.com or visit www.jsemsemi.com