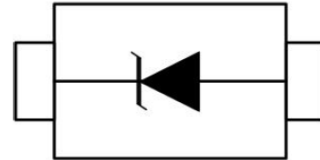
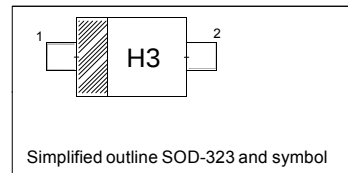


1-Line Bi-directional High Power TVS Diode

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Features

- * 1500W peak pulse power (8/20 μ s)
- * Low leakage: nA level
- * Low operating voltage: 4.5/5.0V
- * Ultra low clamping voltage
- * One power line protects
- * Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: ± 30 kV
 - Contact discharge: ± 30 kV
 - IEC61000-4-5 (Lightning) 110A (8/20 μ s)
- * RoHS Compliant
- * Package: SOD-323
- * Lead Finish: Sn

Applications

- * Mobile Phones and Accessories
- * Battery Protection
- * USB VBus
- * Power Line Protection
- * Hand Held Portable Applications

Absolute Maximum Ratings (TA=25°C unless otherwise specified)

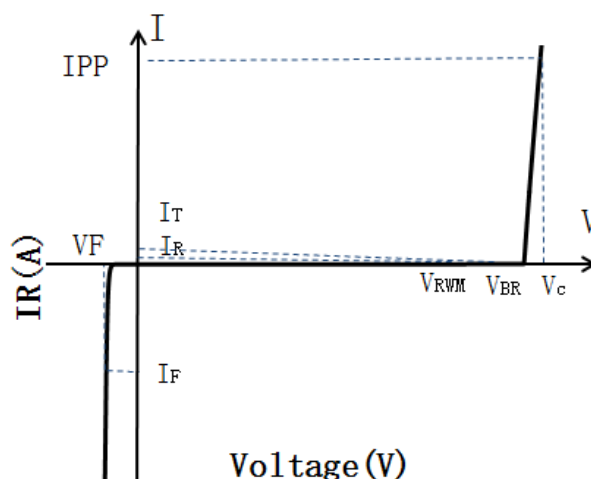
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppk	1500	W
Peak Pulse Current (8/20μs)	IPP	110	A
ESD per IEC 61000-4-2 (Air)	VESD	±30	kV
ESD per IEC 61000-4-2 (Contact)		±30	
Operating Temperature Range	TJ	-55 to +125	°C
Storage Temperature Range	Tstg	-55 to +150	°C

Electrical Characteristics (TA=25°C unless otherwise specified)

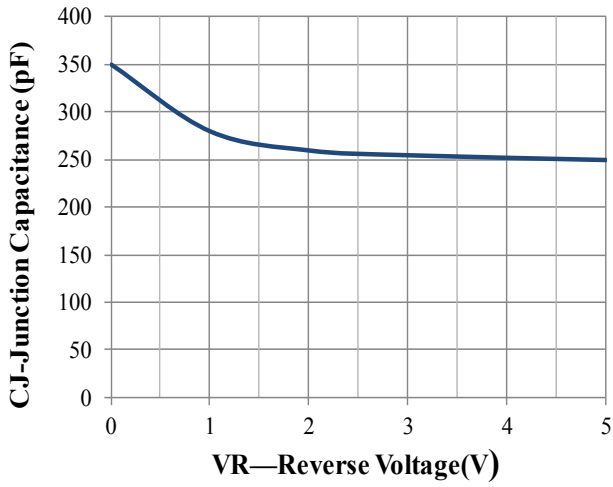
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V _{RWM}				4.5	V
Breakdown Voltage	V _{BR}	I _T = 1mA	5.5			V
Reverse Leakage Current	I _R	V _{RWM} = 4.5V			1.0	μA
Clamping Voltage	V _C	I _{PP} = 50A (8 x 20μs pulse)		7.5		V
Clamping Voltage	V _C	I _{PP} = 110A (8 x 20μs pulse)		9.5	14	V
Junction Capacitance	C _J	V _R = 0V, f = 1MHz		330	400	pF

Portion Electronics Parameter

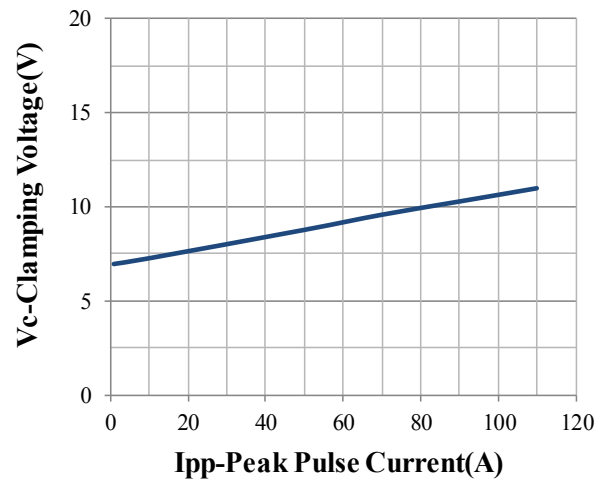
Symbol	Parameter
I _T	Test Current
I _{PP}	Maximum Reverse Peak Pulse Current
V _C	Clamping Voltage @I _C



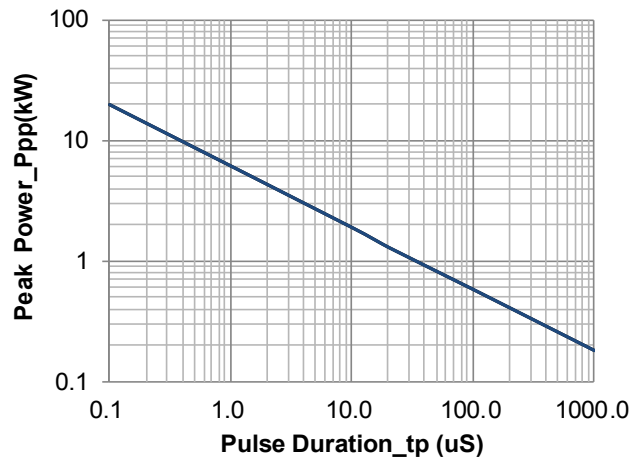
Typical Characteristics



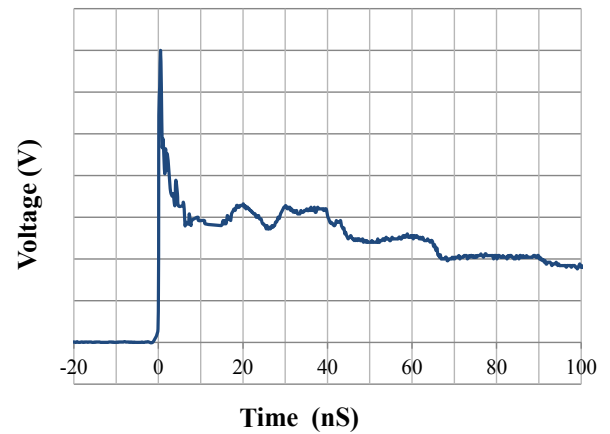
Junction Capacitance vs. Reverse Voltage



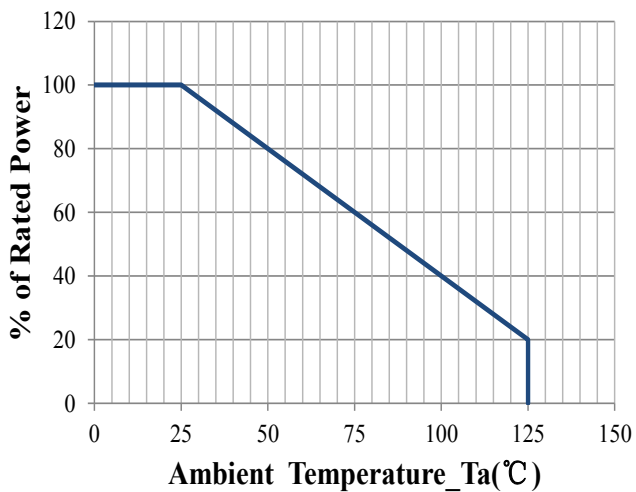
Clamping Voltage vs. Peak Pulse Current



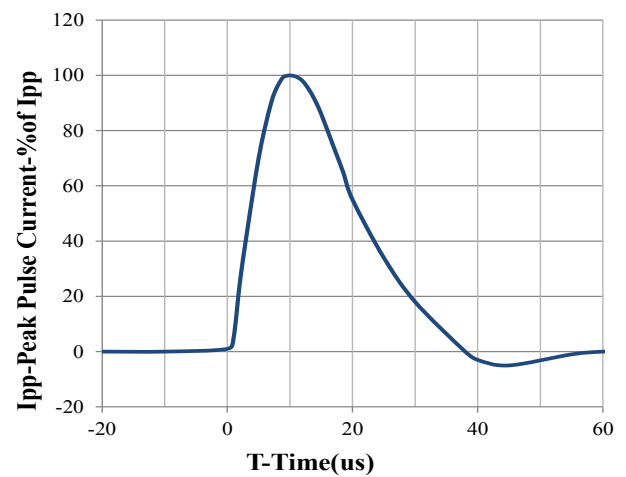
Peak Pulse Power vs. Pulse Time



IEC61000-4-2 Pulse Waveform



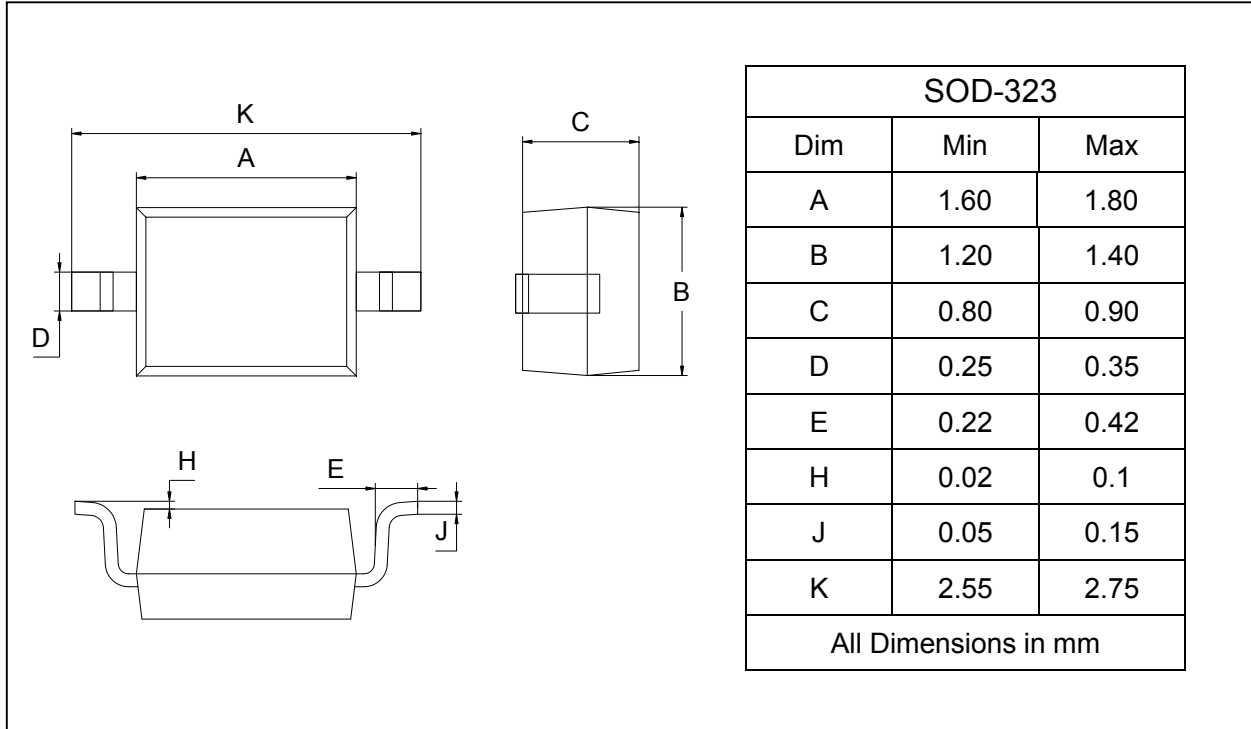
Power Derating Curve



8 X 20us Pulse Waveform

Plastic surface mounted package

SOD-323



SOLDERING FOOTPRINT

