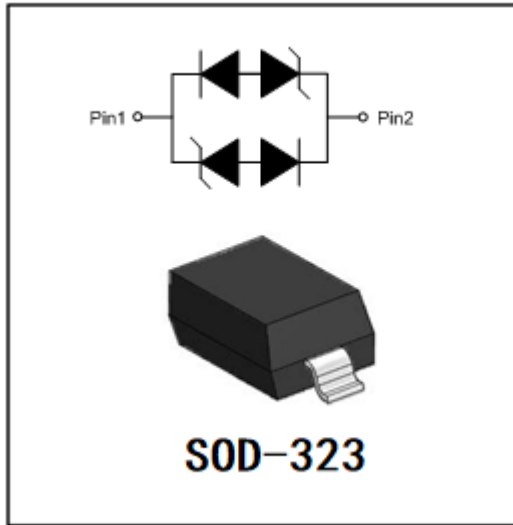


1-Line Low Capacitance Bi-directional TVS Diode



Features

- 350W peak pulse power (8/20 μ s)
- Ultra low capacitance: 1pF typical
- Ultra low leakage: nA level
- Operating voltage: 12V
- Low clamping voltage
- Protects one power line or data line
- RoHS Compliant

Mechanical Characteristics

- Package: SOD-323
- Moisture Sensitivity: Level 1 per J-STD-020
- Case Material: "Green" Molding Compound
- Marking Information: See Below



Maximum Ratings

PARAMETER	SYMBOL	VALUE	UNIT
Peak Pulse Power (8/20 μ s)	Ppk	350	W
Peak Pulse Current (8/20 μ s)	I _{PP}	14	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V _{ESD}	\pm 30 \pm 30	KV
Operating Temperature Range	T _J	-55 to +125	$^{\circ}$ C
Storage Temperature Range	T _{stg}	-55 to +150	$^{\circ}$ C

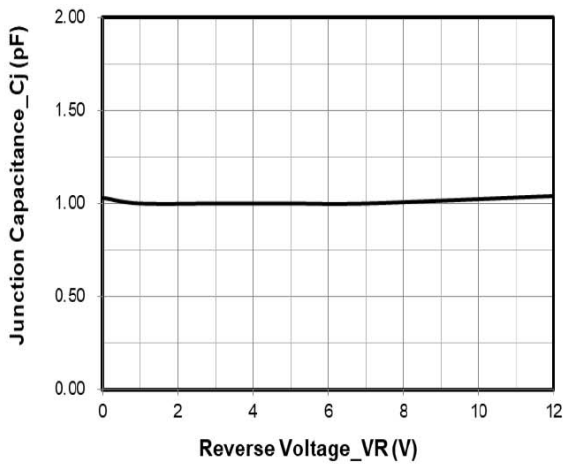
Electrical Characteristics (T_a=25 $^{\circ}$ C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	CONDITIONS	MIN	TYP	MAX
Reverse Working Voltage	V _{RWM}	V				12
Breakdown Voltage	V _{BR}	V	I _T = 1mA	13.3		
Reverse Leakage Current	I _R	μ A	V _{RWM} = 12V			0.2
Clamping Voltage	V _C	V	I _{PP} = 1A (8/20 μ s pulse)			18
Clamping Voltage	V _C	V	I _{PP} = 14A (8/20 μ s pulse)			25
Junction Capacitance	C _J	pF	V _R = 0V, f = 1MHz		1	1.5

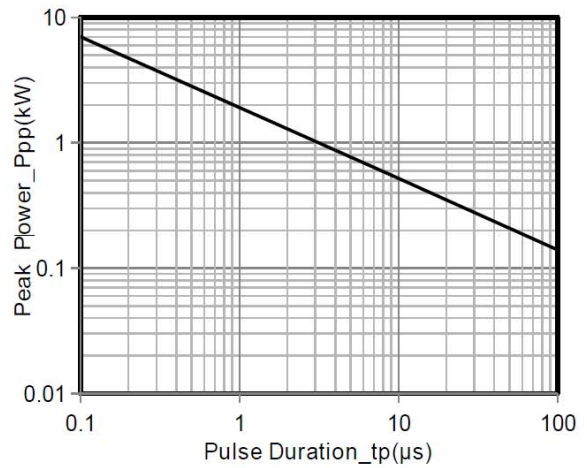


ESDSL12VD3BA

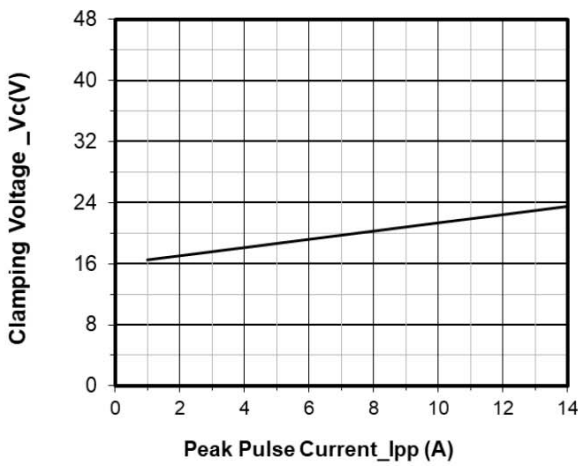
■ Characteristics (Typical)



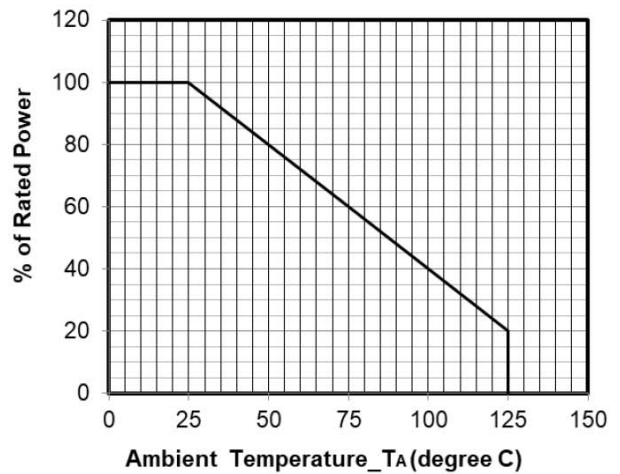
Junction Capacitance vs. Reverse Voltage



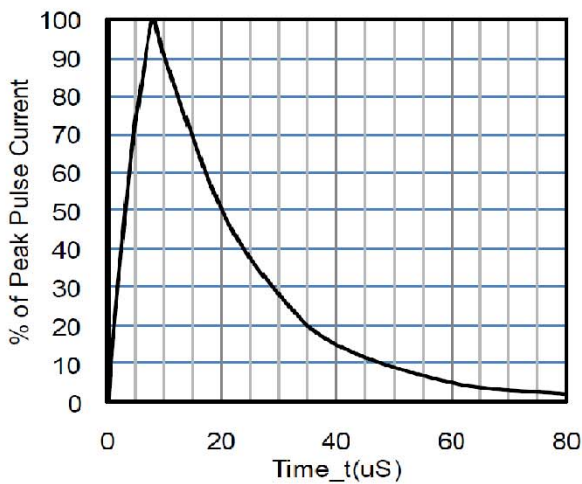
Peak Pulse Power vs. Pulse Time



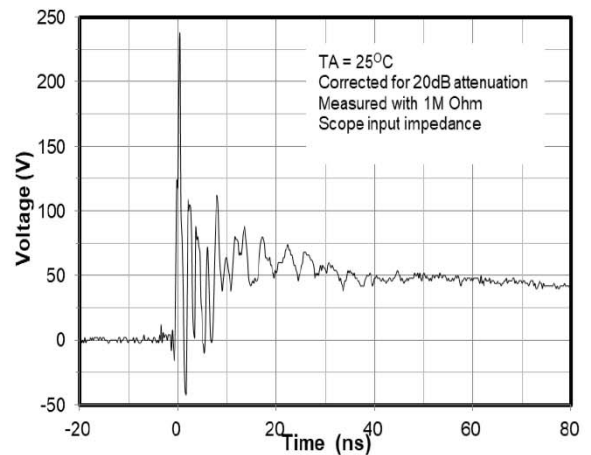
Clamping Voltage vs. Peak Pulse Current



Power Derating Curve



8 / 20μs Pulse Waveform



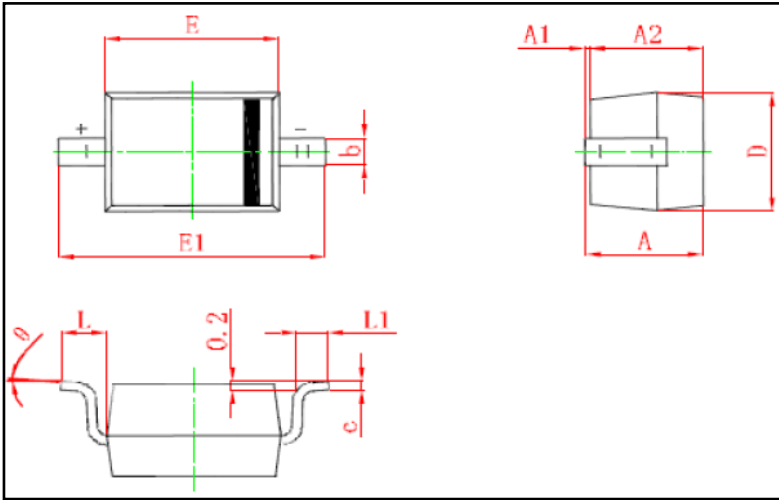
ESD Clamping Voltage

8 kV Contact per IEC61000-4-2



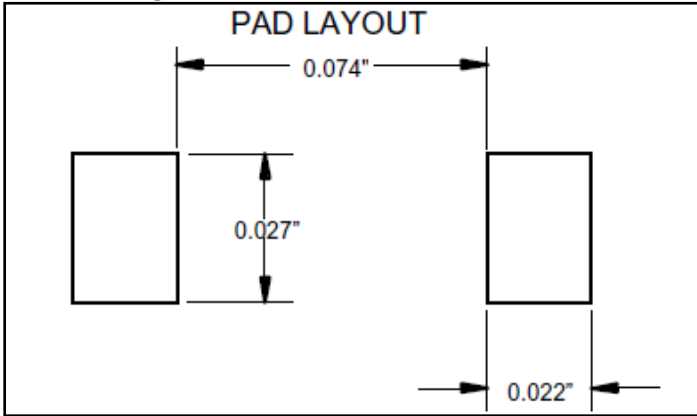
ESDSL12VD3BA

■ Outline Dimensions



Symbol	Min. (mm)	Max. (mm)
A		1.000
A1	0.000	0.100
A2	0.800	0.900
b	0.250	0.400
c	0.080	0.150
D	1.200	1.400
E	1.600	1.800
E1	2.500	2.700
L	0.475REF	
L1	0.250	0.400
θ	0°	8°

■ Soldering Footprint





ESDSL12VD3BA

Disclaimer

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