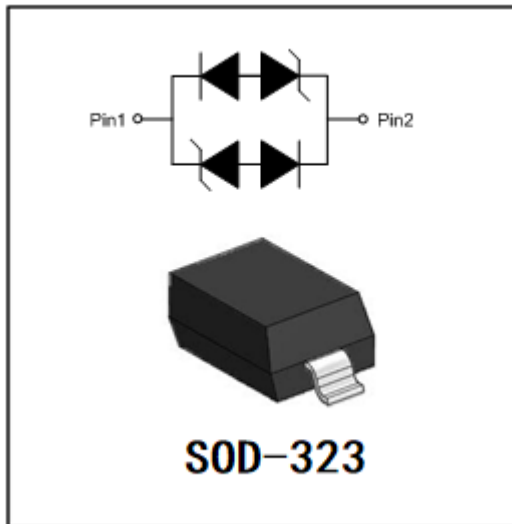


1-Line Low Capacitance Bi-directional TVS Diode



Features

- 340W peak pulse power (8/20μs)
- Ultra low capacitance: 1pF typical
- Ultra low leakage: nA level
- Operating voltage: 3.3V
- Low clamping voltage
- Protects one power line or data line
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
- Air discharge: ±30Kv
- Contact discharge: ±30kV
- IEC61000-4-5 (Lightning) 30A (8/20μs)
- RoHS Compliant

Marking Information



■Maximum Ratings

PARAMETER	SYMBOL	VALUE	UNIT
Peak Pulse Power (8/20μs)	P _{pk}	340	W
Peak Pulse Current (8/20μs)	I _{pp}	21	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V _{ESD}	±30 ±30	KV
Operating Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C

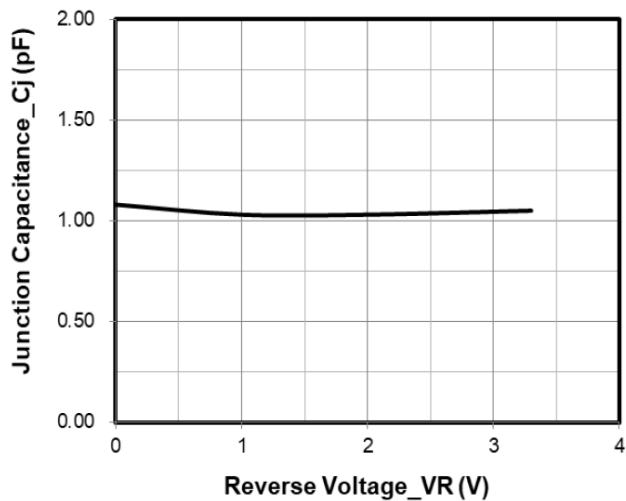


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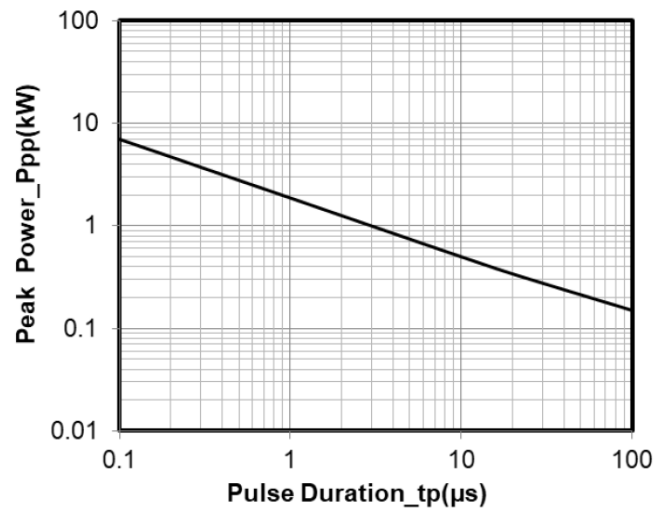
■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	CONDITIONS	MIN	TYP	MAX
Reverse Working Voltage	V _{RWM}	V				3.3
Punch-Through Voltage	V _{PT}	V	I _T = 2μA	3.5		
Breakdown Voltage	V _{BR}	V	I _T = 50mA	2.8		
Reverse hold voltage	V _{HOLD}	V		2.8		
Reverse Leakage Current	I _R	μA	V _{RWM} = 3.3V			0.2
Clamping Voltage	V _C	V	I _{PP} = 1A (8/20μs pulse)			5
Clamping Voltage	V _C	V	I _{PP} = 21A (8/20μs pulse)			16
Junction Capacitance	C _J	pF	V _R = 0V, f = 1MHz		1	

■ Characteristics (Typical)



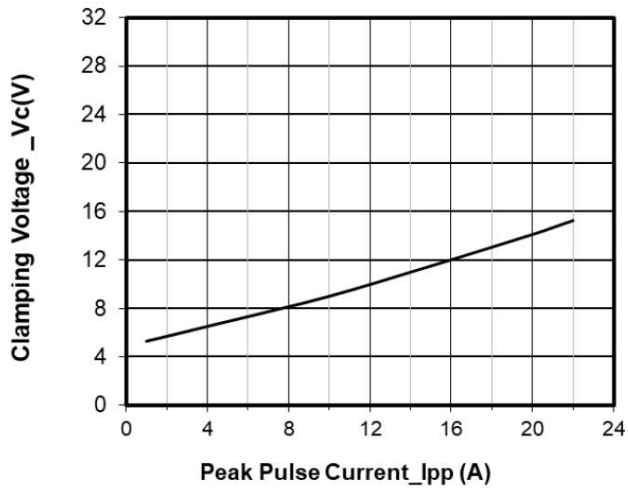
Junction Capacitance vs. Reverse Voltage



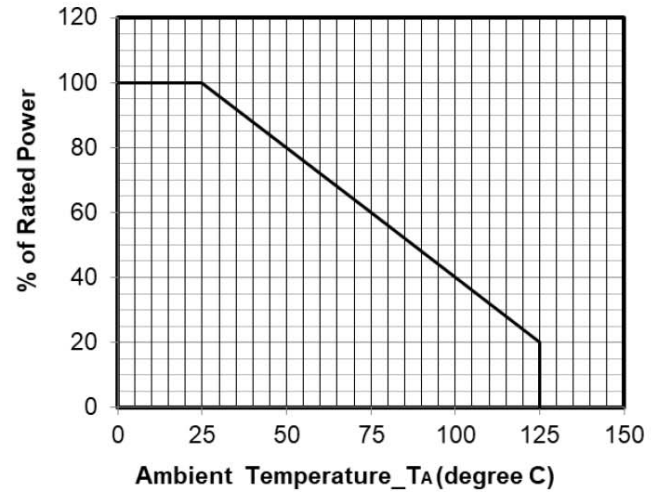
Peak Pulse Power vs. Pulse Time



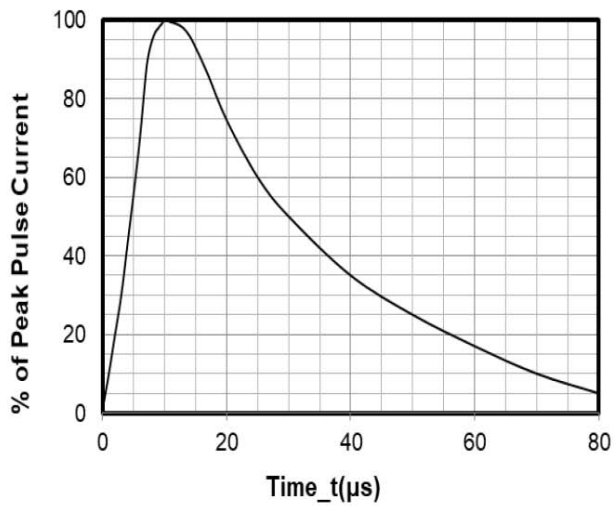
ESDSL3V3D3BA



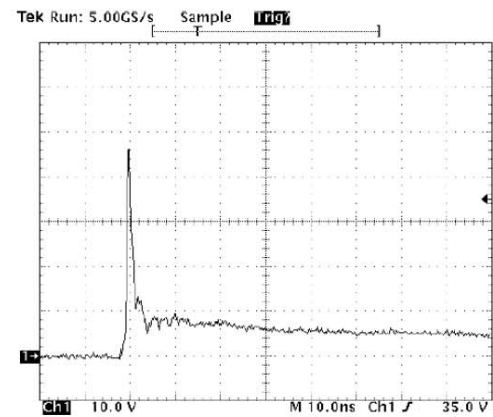
Clamping Voltage vs. Peak Pulse Current



Power Derating Curve



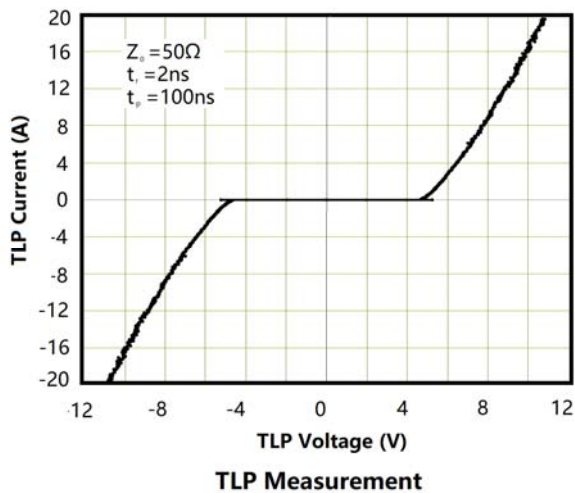
8 X 20µs Pulse Waveform



Note: Data is taken with a 10x attenuator

ESD Clamping Voltage

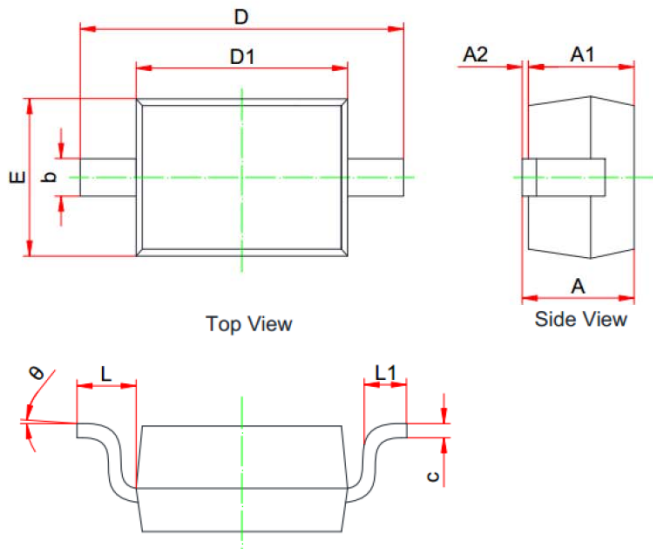
8 kV Contact per IEC61000-4-2





ESDSL3V3D3BA

■ Outline Dimensions



SYM	MILLIMETERS		
	MIN	NOM	MAX
A	0.800	--	1.100
A1	0.800	--	0.900
A2	0.000	--	0.100
b	0.250	--	0.400
c	0.080	--	0.177
D1	1.600	1.700	1.800
D	2.300	--	2.800
E	1.150	--	1.400
L	0.475REF		
L1	0.100	--	0.500
Θ	0°	--	8°

■ Soldering Footprint



Unit: mm



ESDSL3V3D3BA

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