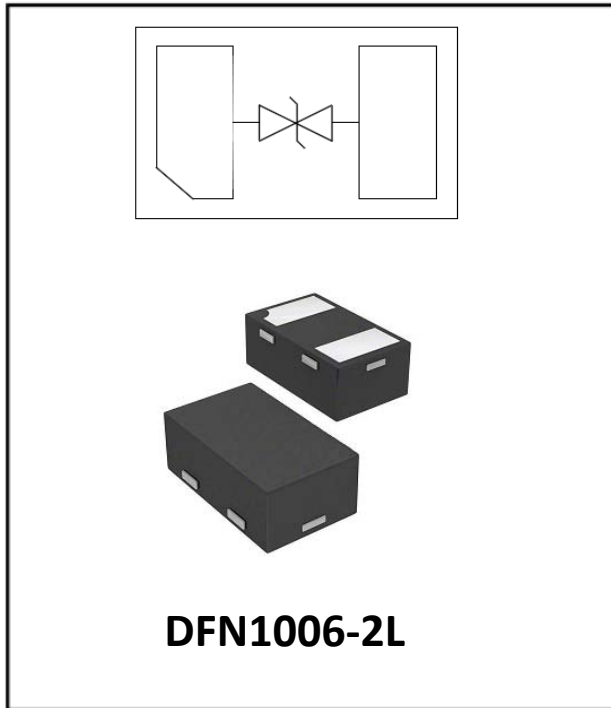


1-Line Ultra Low Capacitance Bi-directional TVS Diode



Features

- Ultra small package: 1.0x0.6x0.5mm
- Ultra low capacitance: 0.3pF typical
- Ultra low leakage: nA level
- Operating voltage: 24V
- Low clamping voltage
- 2-Pin leadless package
- RoHS Compliant

Mechanical Characteristics

- Package: DFN1006-2
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound.
- Moisture Sensitivity: Level 3 per J-STD-020
- Marking Information: See Below



R24 = Device Marking Code

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

PARAMETER	SYMBOL	VALUE	UNIT
Operating Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C
ESD per IEC 61000-4-2 (Air)	V _{ESD}	±15	KV
ESD per IEC 61000-4-2 (Contact)		±8	KV
Peak Pulse Power(8/20μs)	P _{Pk}	80	W
Peak Pulse Current(8/20μs)	I _{PP}	1.5	A

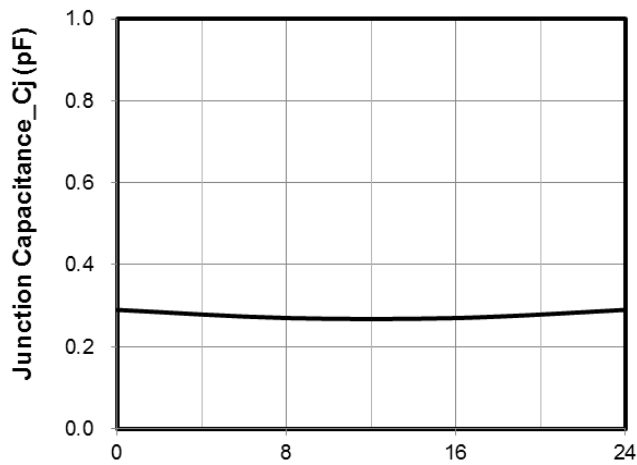
■ Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	Symbol	UNIT	Conditions	Min	Typ	Max
Reverse Working Voltage	V _{RWM}	V				24
Reverse Leakage Current	I _R	μA	V _{RWM} =24V			0.5
Breakdown Voltage	V _{BR}	V	I _T =1mA	26.5		
Clamping Voltage	V _C	V	I _{PP} = 1A (8/20μs pulse)			40
Clamping Voltage	V _C	V	I _{PP} = 1.5A (8/20μs pulse)			53
Junction Capacitance	C _J	pF	VR = 0V, f = 1MHz		0.3	

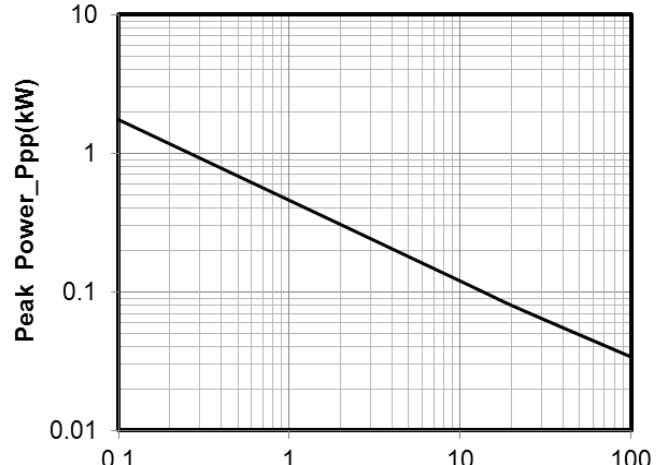


ESDSL24VLBS

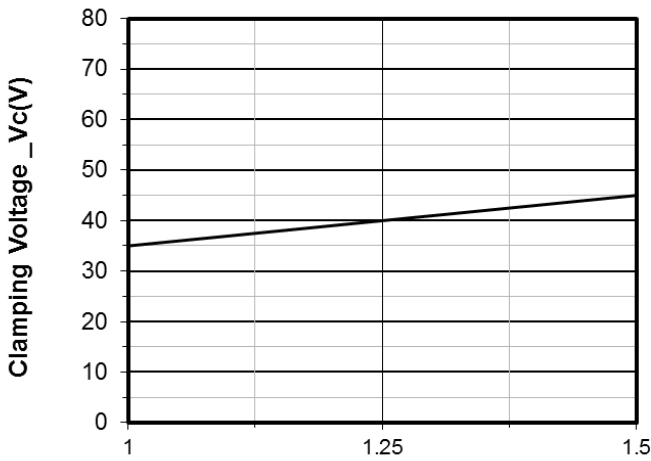
Typical Performance Characteristics (Ta=25°C unless otherwise Specified)



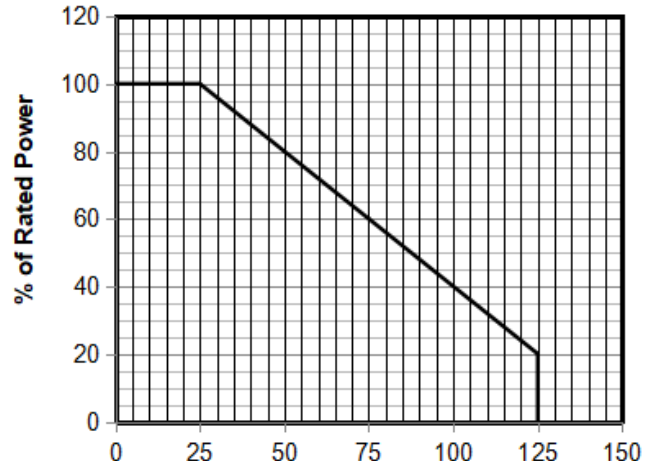
Junction Capacitance vs. Reverse Voltage



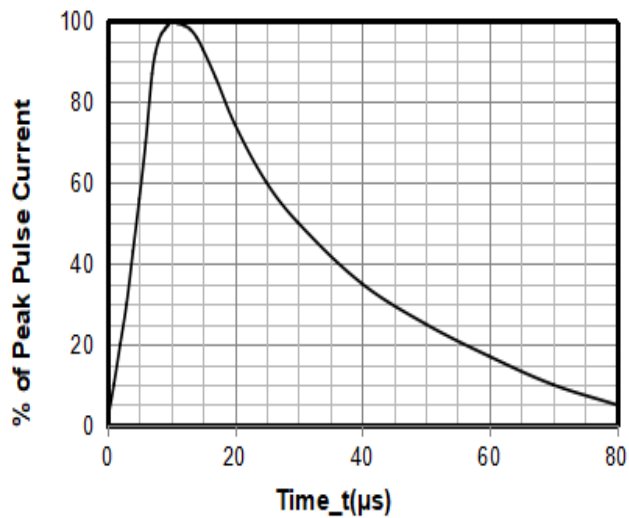
Peak Pulse Power vs. Pulse Time



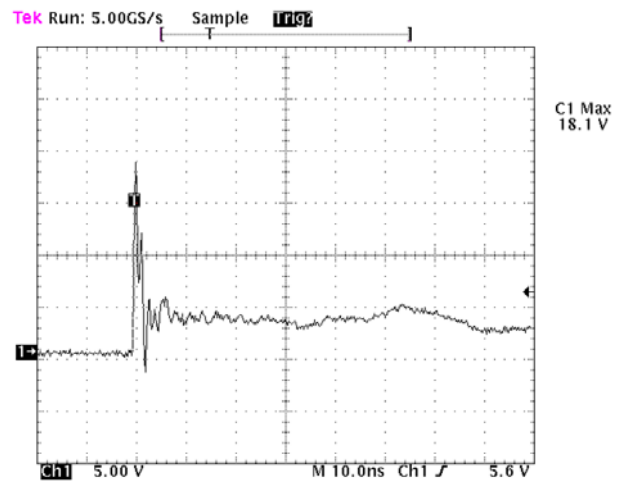
Clamping Voltage vs. Peak Pulse Current (tp = 8/20μs)



Power Derating Curve



8 /20μs Pulse Waveform

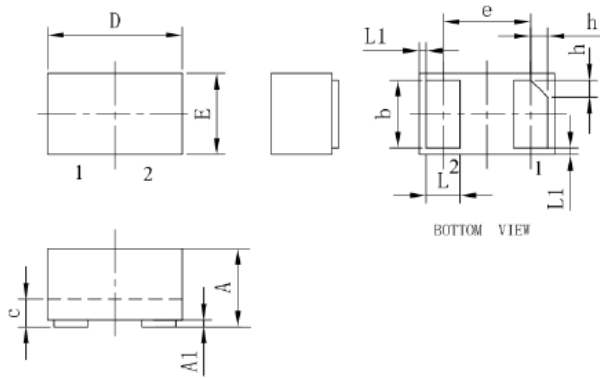


Note: Data is taken with a 10x attenuator
ESD Clamping Voltage
8 kV Contact per IEC61000-4-2



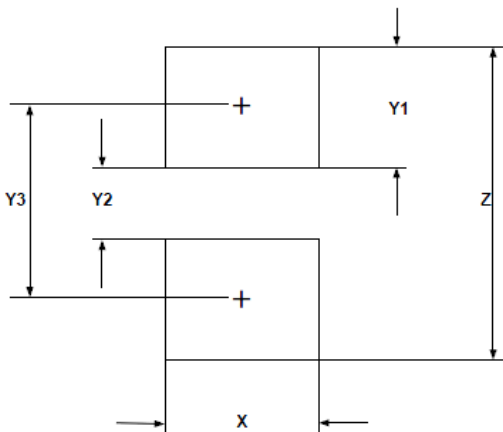
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■ Outline Dimensions



SYM	DIMENSIONS					
	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.45	0.50	0.55	0.018	0.020	0.022
A1	0.00	0.02	0.05	0.000	0.001	0.002
b	0.45	0.50	0.55	0.018	0.020	0.022
c	0.12	0.15	0.18	0.005	0.006	0.007
D	0.95	1.00	1.05	0.037	0.039	0.041
e	0.65 BSC			0.026 BSC		
E	0.55	0.60	0.65	0.022	0.024	0.026
L	0.20	0.25	0.30	0.008	0.010	0.012
L1	0.05REF			0.002REF		
h	0.07	0.12	0.17	0.003	0.005	0.007

■ Suggested Land Pattern



SYM	DIMENSIONS	
	MILLIMETERS	INCHES
X	0.60	0.024
Y1	0.50	0.020
Y2	0.30	0.012
Y3	0.80	0.032
Z	1.30	0.052



ESDSL C24VLBS

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