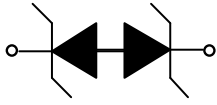


1-Line, Bi-directional, Transient Voltage Suppressor



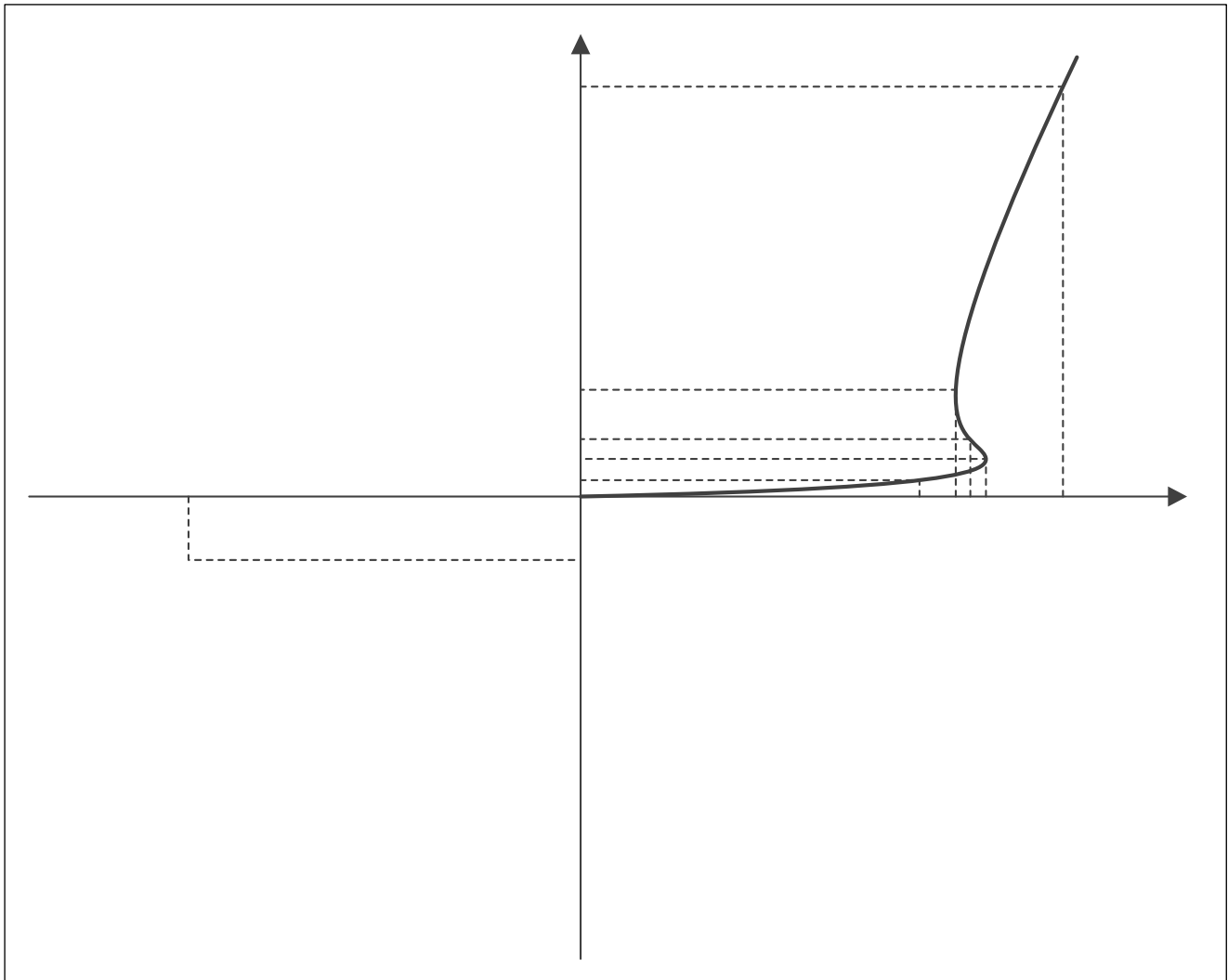
Features

- " Stand-off voltage: $\pm 12\text{V}$ Max
- " Transient protection for each line according to IEC61000-4-2(ESD): $\pm 30\text{kV}$ (contact)
- IEC61000-4-4 (EFT): 40A (5/50ns)
- IEC61000-4-5(surge): 6A (8/20 s)
- " Ultra-low capacitance: $C_J = 5\text{pF}$ typ
- " Low leakage current
- " Low clamping voltage: $V_{CL} = 21.0\text{V}$ typ. @ $I_{PP} = 16\text{A}$ (TLP)
- " Solid-state silicon technology

Mechanical Data

- " Package : DFN1006-2L
- " Terminals : Tin plated leads, solderable per J-STD-002 and JESD22-B102
- " Polarity: No marking on bi-directional types
- " Marking: cD

Definitions of electrical characteristics



ESDLC12VLB

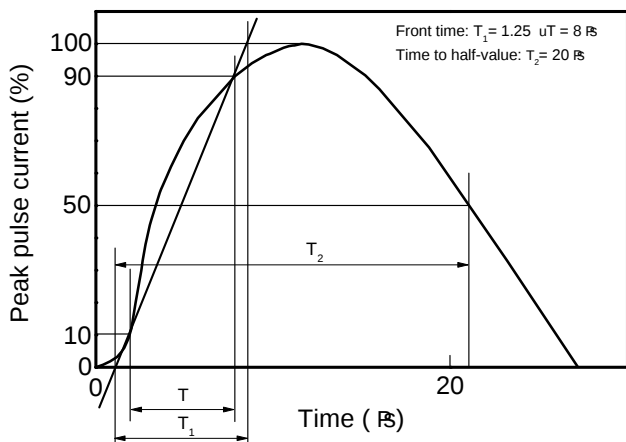
Maximum Ratings

PARAMETER	SYMBOL	Rating	UNIT
Peak pulse power ($t_p = 8/20 \text{ s}$)	P_{pk}	120	W
Peak pulse current ($t_p = 8/20 \text{ s}$)	I_{PP}	6	A
ESD according to IEC61000-4-2 air discharge	V_{ESD}	± 30	KV
ESD according to IEC61000-4-2 contact discharge		± 30	KV
Junction temperature	T_J	125	$^{\circ}\text{C}$
Operating temperature	T_{OP}	-40~85	$^{\circ}\text{C}$
Storage temperature	T_{STG}	-55~150	$^{\circ}\text{C}$

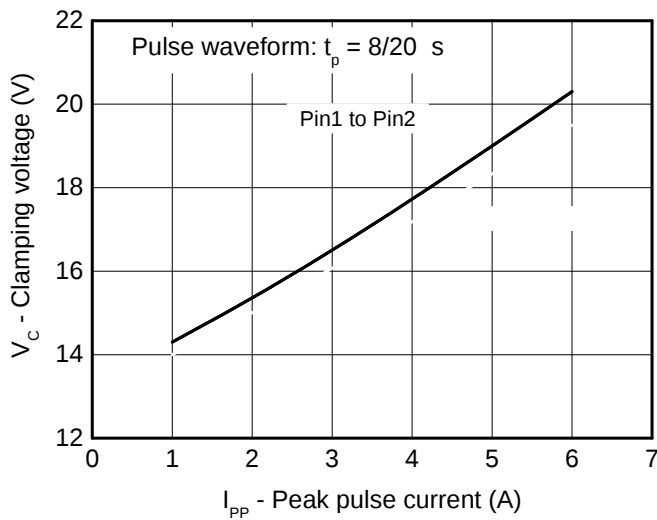
Electrical Characteristics $\dot{A}T_a=25$ Unless otherwise specified $\dot{A}$

vCharacteristics (Typical)

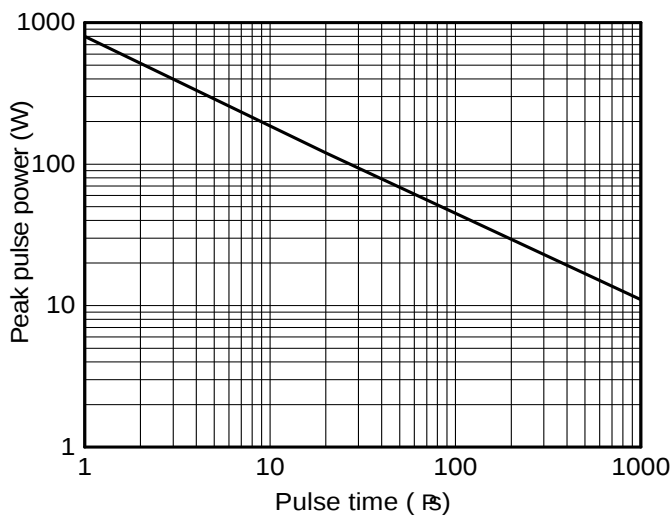
820 μ s waveform per IEC61000-4-5



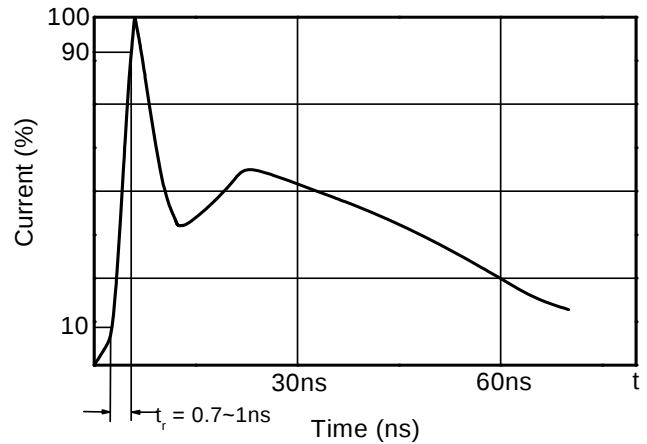
Clamping voltage vs. Peak pulse current



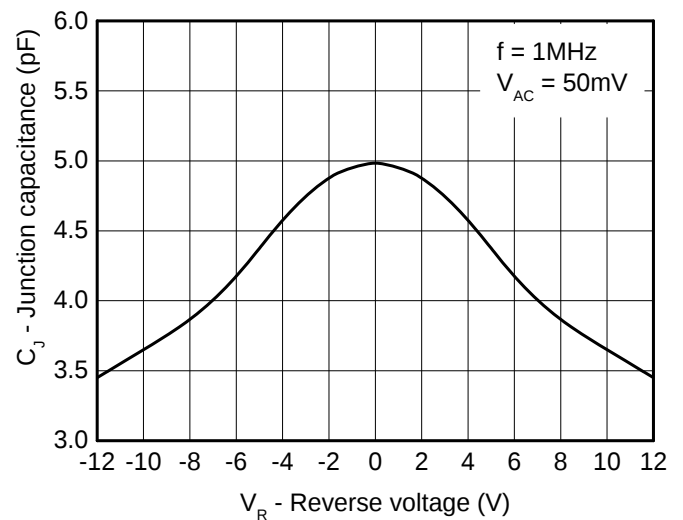
Non repetitive peak pulse power vs. Pulsetime



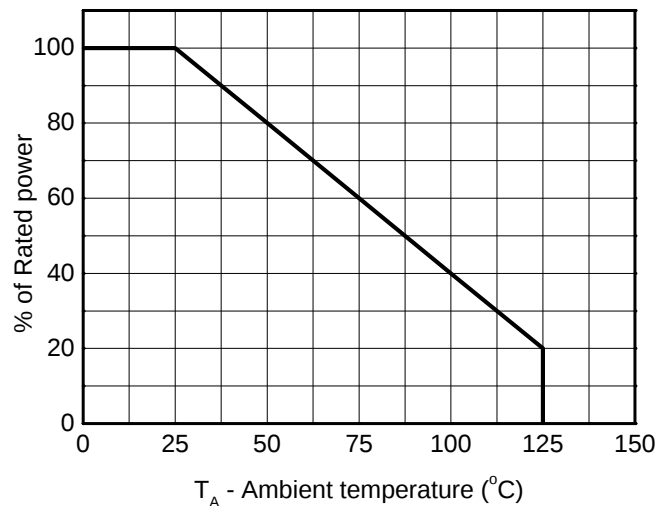
Contact discharge current waveform per IEC61000-4-2



Capacitance vs. Reverse voltage



Power derating vs. Ambient temperature

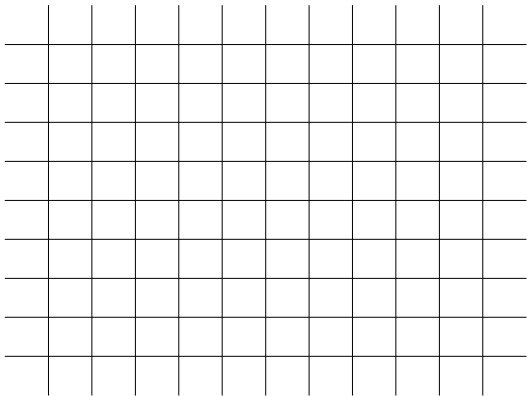


ESDLC12VLB

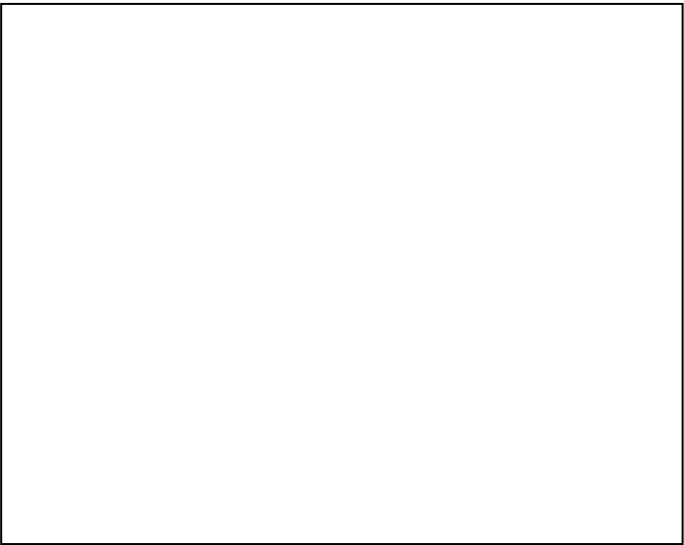
ESDclamping
(+8kVcontactdischargeper IEC61000-4-2)

ESDclamping
(8kVcontactdischargeper IEC61000-4-2)

TLPMeasurement



vOutline Dimensions



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P P

ESDLC12VLB

vRecommend land pattern (Unit:mm)

Notes:

This recommended land pattern is for reference purposes only. Please consult your manufacturing group to ensure your PCB design guidelines are met

Disclaimer

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