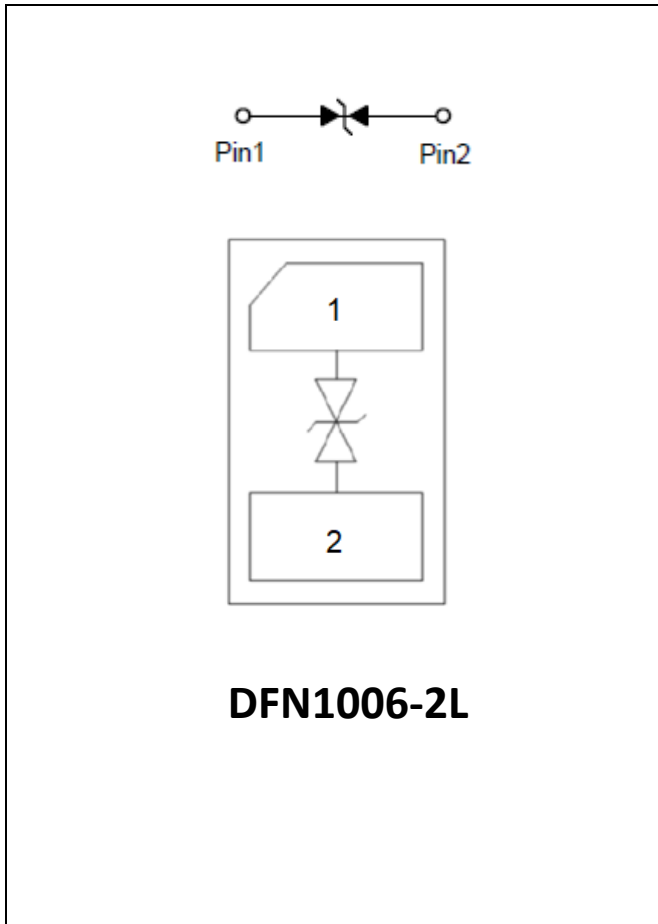


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1- Line, Bi-directional, Transient Voltage Suppressor



Features

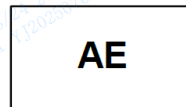
- Low capacitance: 0.3pF typical
- Stand-off voltage: 5V Max
- Transient protection for each line according to
IEC61000-4-2(ESD): 15kV (contact)
IEC61000-4-2(ESD): 15kV (air)
IEC61000-4-5(surge): 5A (8/20 μ s)
- Ultra Low leakage : nA level
- Low clamping voltage
- RoHS Compliant

Applications

- MDDI / MHL
- USB 2.0 / USB 3.0
- Digital Visual Interface (DVI)
- Display Ports
- Cellular Handsets and Accessories
- PCI Express and Serial SATA Ports

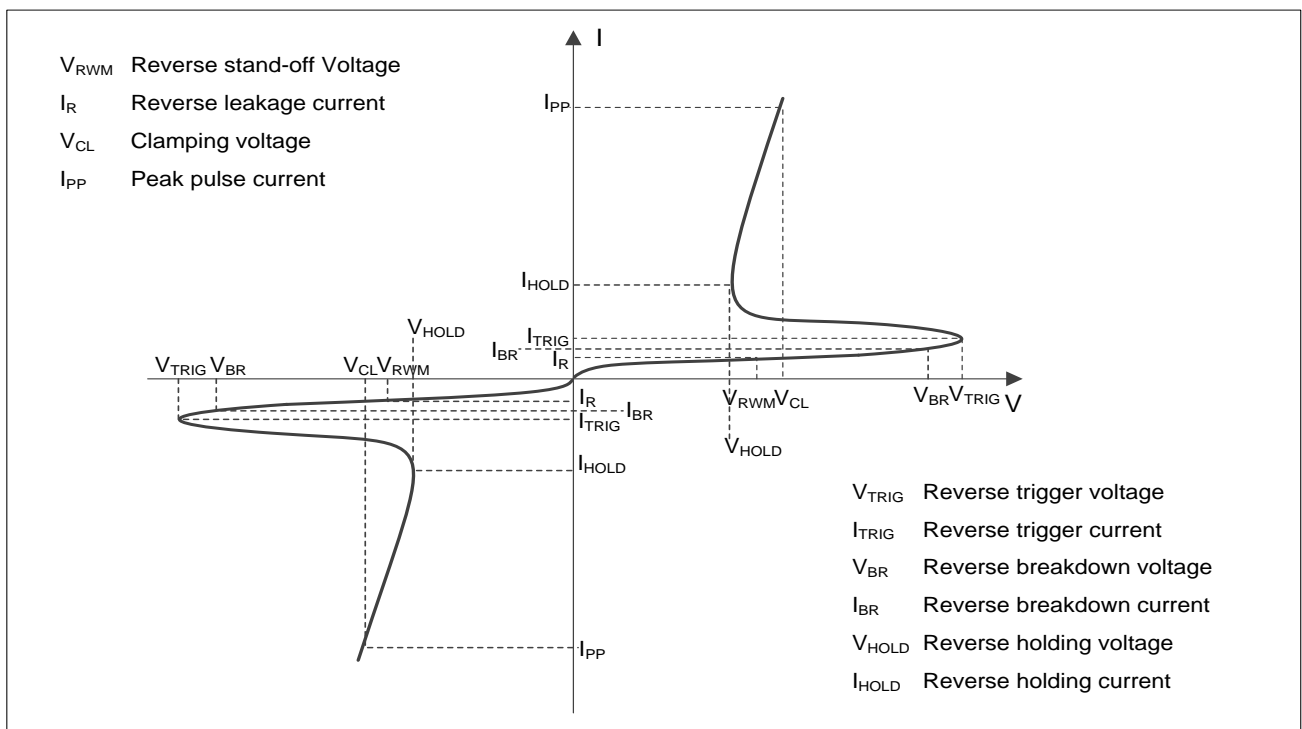
Mechanical Characteristics

- Package: DFN1006-2L
- Case Material: "Green" Molding Compound.
- Marking Information: See Below



AE= Device Marking Code

■Definitions of electrical characteristics





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

PARAMETER	SYMBOL	Rating	UNIT
Peak pulse power ($t_p = 8/20\mu s$)	P_{pk}	35	W
Peak pulse current ($t_p = 8/20\mu s$)	I_{PP}	5	A
ESD according to IEC61000-4-2 air discharge	V_{ESD}	± 15	KV
ESD according to IEC61000-4-2 contact discharge		± 15	KV
Junction temperature	T_J	-55~125	°C
Storage temperature	T_{STG}	-55~150	°C

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

PARAMETER	Symbol	UNIT	Conditions	Min	Typ	Max
Reverse maximum working voltage	V_{RWM}	V				5
Reverse breakdown voltage	V_{BR}	V	$I_{BR} = 1mA$	6		
Reverse leakage current	I_R	μA	$V_{RWM} = 5V$			0.2
Clamping voltage	V_{CL}	V	$I_{PP} = 5A$ (8 x 20 μs pulse)			7
Clamping voltage ⁽¹⁾	V_{CL}	V	$I_{PP} = 4A$, $t_p = 0.2/100ns$ (TLP)		4.6	
		V	$I_{PP} = 16A$, $t_p = 0.2/100ns$ (TLP)		9.1	
Dynamic Resistance ⁽²⁾	R_{DYN}	Ohm	$t_p = 0.2/100ns$ (TLP)		0.38	
Junction capacitance	C_J	pF	$V_R = 0V$, $f = 1MHz$		0.3	

(1) Transmission Line Pulse Test (TLP) Settings: $t_p = 100ns$, $t_r = 0.2ns$.

(2) Dynamic resistance calculated from $I_{TLP} = 4A$ to $I_{TLP} = 16A$.

■Ordering Information (Example)

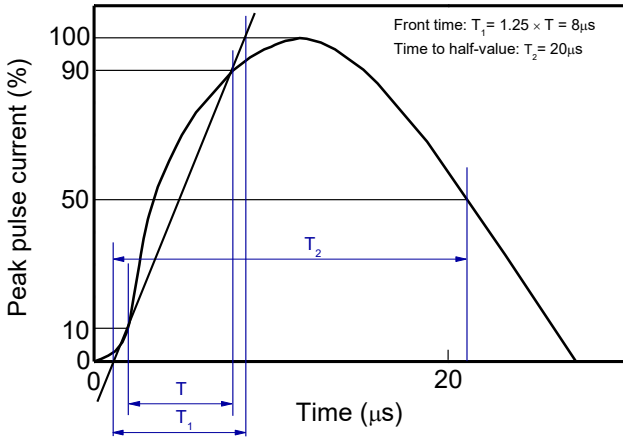
PREFERED P/N	UNIT WEIGHT(mg)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SESDULC5V0LB	Approximate 0.9	10000	100000	400000	Tae& reel



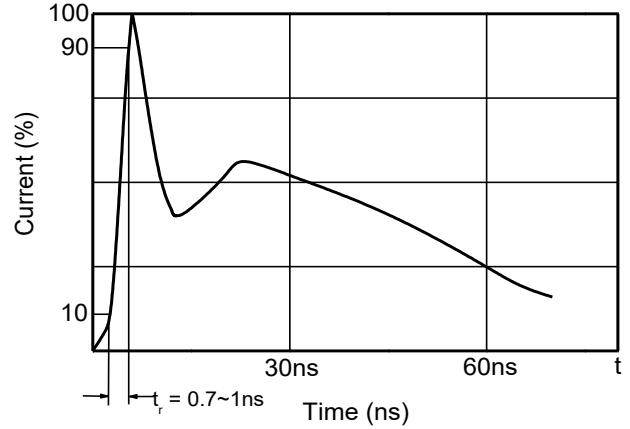
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■ Typical Performance Characteristics (Ta=25°C unless otherwise Specified)

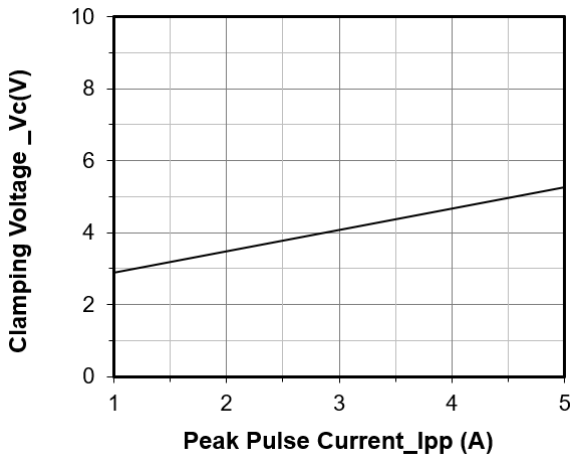
8/20μs waveform per IEC61000-4-5



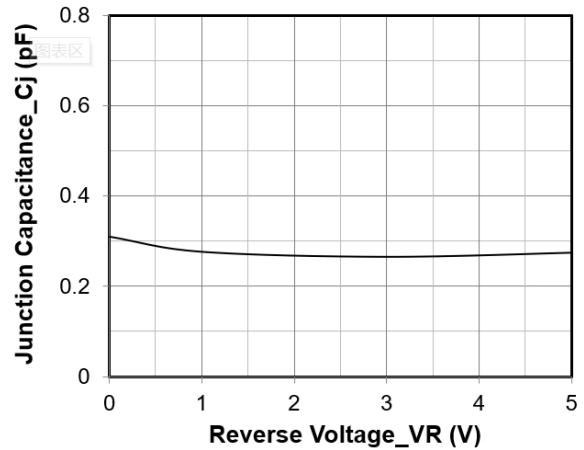
Contact discharge current waveform per IEC61000-4-2



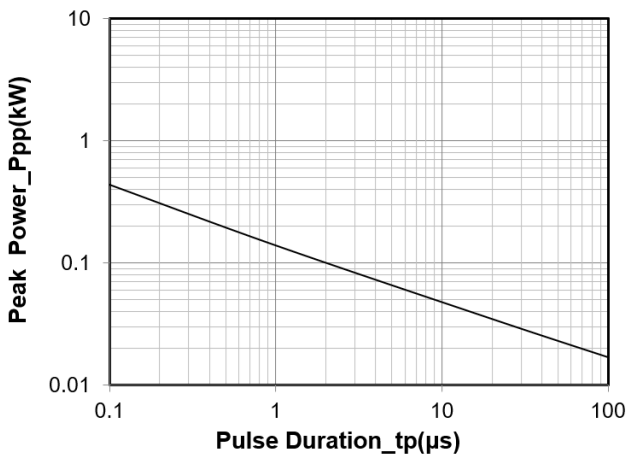
Clamping voltage vs. Peak pulse current



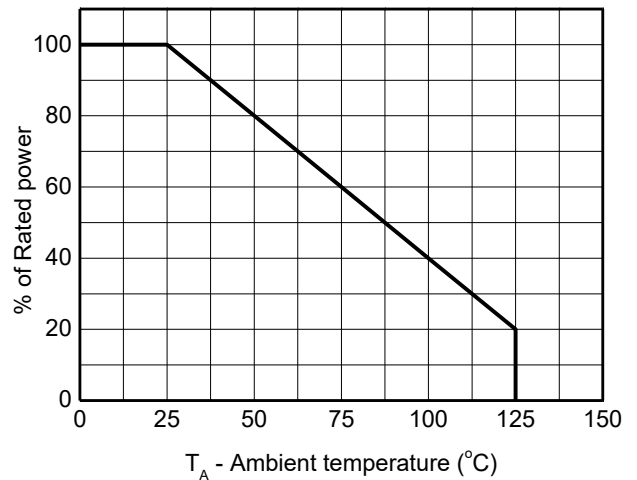
Capacitance vs. Reverse voltage



Non-repetitive peak pulse power vs. Pulse time



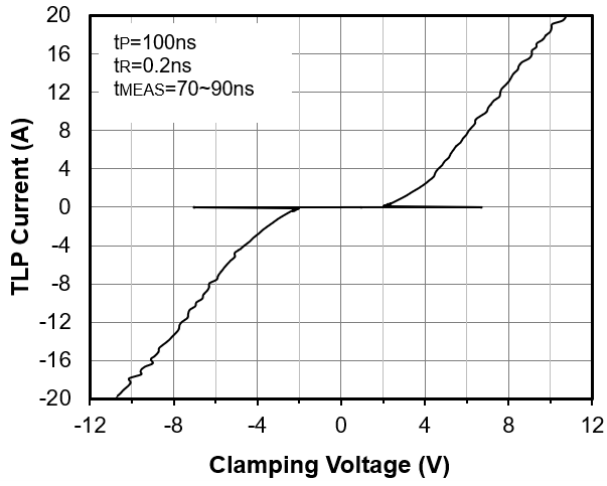
Power derating vs. Ambient temperature



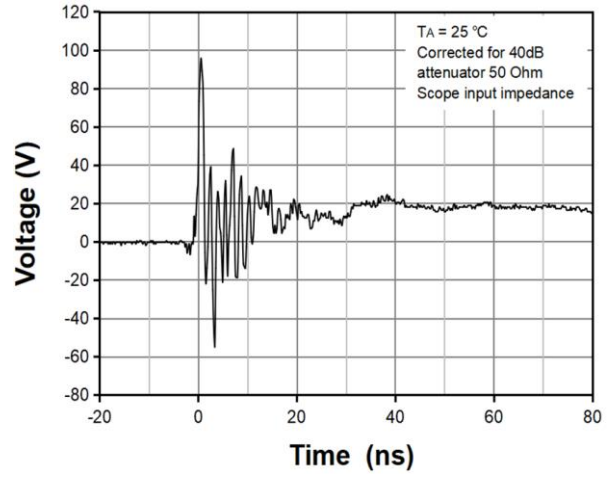


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TLP Measurement



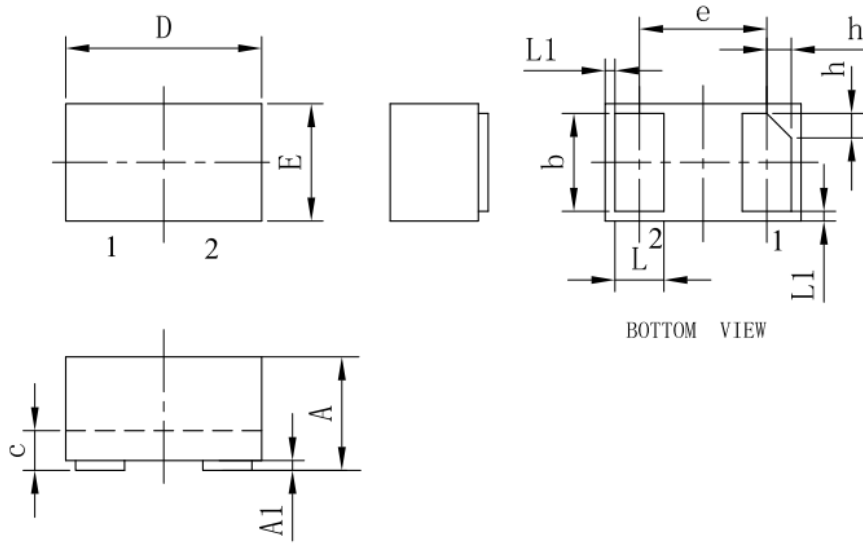
ESD Clamping Voltage 8 kV Contact per IEC61000-4-2





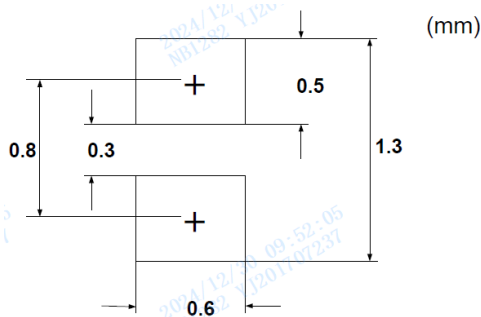
SESDULC5V0LB

■ 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

■ Recommend land pattern (Unit:mm)



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



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