
Small Package Uni-directional TVS for ESD Protection

Compliance Standard

- ◆ IEC 61000-4-2 (ESD)
30KV - Contact Discharge
30KV - Air Discharge
- ◆ IEC 61000-4-4 (EFT) 40A (5/50ns)

Applications

- ◆ Networking
- ◆ Embedded System
- ◆ Handheld Device
- ◆ Computer

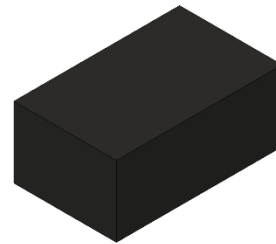
Features

- ◆ 180W Peak Pulse Power
- ◆ Low Clamping Voltage
- ◆ Low Leakage Current
- ◆ Single Line, Uni-Directional

Mechanical Characteristics

- ◆ DFN-1006 Package (0402)
- ◆ Weight 0.5 Milligram (Approximate)
- ◆ Flammability Rating UL94V-0
- ◆ Lead Free Plating
- ◆ Reel Size 7"
- ◆ 10000 PCS Per Reel

Package



DFN-1006

Pin Configuration



DEVICE CHARACTERISTICS

Maximum Rating			
Parameter	Symbol	Value	Unit
Peak Pulse Power	P _{PP}	180	Watt
Lead Soldering Temperature	T _L	260 (10s)	°C
Operating Temperature Range	T _J	-55~150	°C
Storage Temperature Range	T _{STG}	-55~150	°C

Electrical Characteristics (@25 °C)							
Part Number	Marking	V _{RWM} (Volt)	V _B (Volt)	V _C (Volt)	I _{PP} (A)	I _R (uA)	C _J (pF)
NLSDA12DN	PM	12.0	13.3	30.0	6.0	1.0	60.0



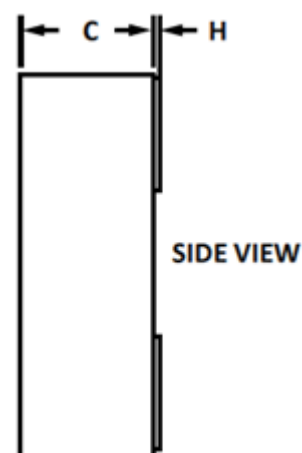
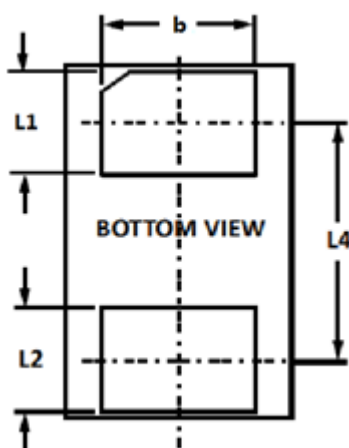
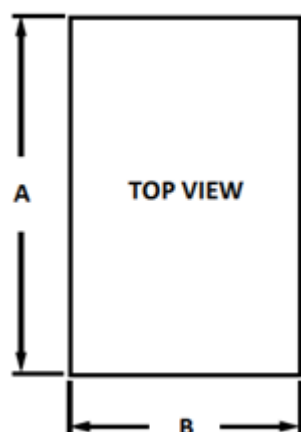
Figure1. Clamping waveform of positive 8KV ESD contact



Figure2. Clamping waveform of negative 8KV ESD contact

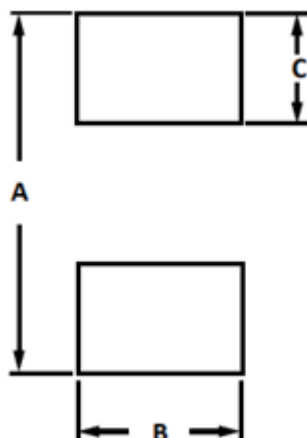
DEVICE OUTLINE

Outline Dimension				
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	0.95	1.05	0.037	0.041
B	0.55	0.65	0.022	0.026
C	0.42	0.58	0.016	0.022
H	0.01	0.07	0.000	0.003
L1	0.275	0.325	0.011	0.013
L2	0.275	0.325	0.011	0.013
L4	0.675	0.725	0.027	0.029
b	0.45	0.55	0.017	0.021



LAYOUT PAD DIMENSION

<i>Layout PAD Dimension</i>				
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	1.3	1.5	0.051	0.059
B	0.5	0.6	0.02	0.024
C	0.43	0.53	0.017	0.021



<i>Revision History</i>	<i>Description</i>
v2.0	Re-organize datasheet layout