
Small Package General Purpose TVS

Compliance Standard

- ◆ IEC 61000-4-2 (ESD)
30KV - Contact Discharge
30KV - Air Discharge
- ◆ IEC 61000-4-4 (EFT) 40A (5/50ns)
- ◆ IEC 61000-4-5 (Surge) 57.0 (8/20us)

Applications

- ◆ DC Power Application
- ◆ Embedded System
- ◆ Handheld Device
- ◆ Computer

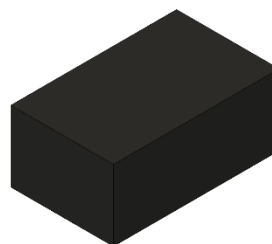
Features

- ◆ 1600W Peak Pulse Power
- ◆ Low Clamping Voltage
- ◆ Low Leakage Current
- ◆ Single Line, Uni-Directional

Mechanical Characteristics

- ◆ DFN-1610 Package (0603)
- ◆ Weight 3 Milligram (Approximate)
- ◆ Flammability Rating UL94V-0
- ◆ Lead Free Plating
- ◆ Reel Size 7"
- ◆ 3000 PCS Per Reel

Package



DFN-1610

Pin Configuration



DEVICE CHARACTERISTICS

Maximum Rating			
Parameter	Symbol	Value	Unit
Peak Pulse Power	P _{PP}	1600	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)
NLSD12TN	UTA	12.0	13.3	28.5	57.0	1.0	370.0



Figure1. Clamping waveform of positive 8KV ESD contact



Figure2. Clamping waveform of negative 8KV ESD contact

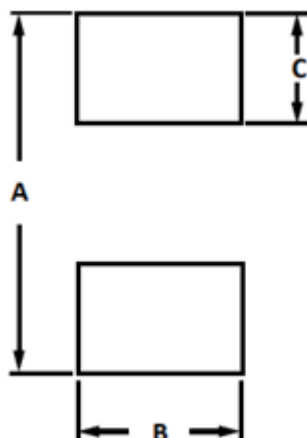
DEVICE OUTLINE

Outline Dimension				
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	1.55	1.65	0.061	0.065
B	0.95	1.05	0.037	0.041
C	0.40	0.50	0.015	0.020
H	0.02	0.05	0.000	0.002
L1	0.75	0.85	0.029	0.033
L2	0.35	0.45	0.013	0.018
L4	1.10TYP		1.10TYP	



LAYOUT PAD DIMENSION

<i>Layout PAD Dimension</i>				
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	1.80	1.90	0.070	0.075
B	0.95	1.05	0.037	0.041
C	1.20	1.30	0.047	0.051



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