
Low Capacitance Bi-directional 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) 7.0 (8/20us)

Applications

- ◆ Ethernet Application
- ◆ Embedded System
- ◆ Handheld Device
- ◆ Computer

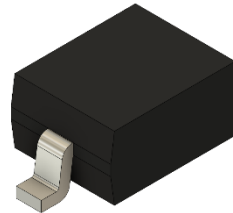
Features

- ◆ 210W Peak Pulse Power
- ◆ Low Clamping Voltage
- ◆ Low Leakage Current
- ◆ Single Line, Bi-Directional

Mechanical Characteristics

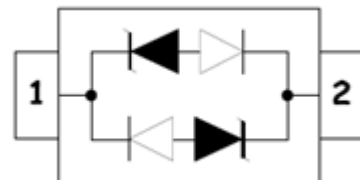
- ◆ SOD-323 Package
- ◆ Weight 5 Milligram (Approximate)
- ◆ Flammability Rating UL94V-0
- ◆ Lead Free Plating
- ◆ Reel Size 7"
- ◆ 3000 PCS Per Reel

Package



SOD-323

Pin Configuration



DEVICE CHARACTERISTICS

Maximum Rating			
Parameter	Symbol	Value	Unit
Peak Pulse Power	P _{PP}	210	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)
NLC12CI	DC	12.0	13.3	30.0	7.0	1.0	1.0

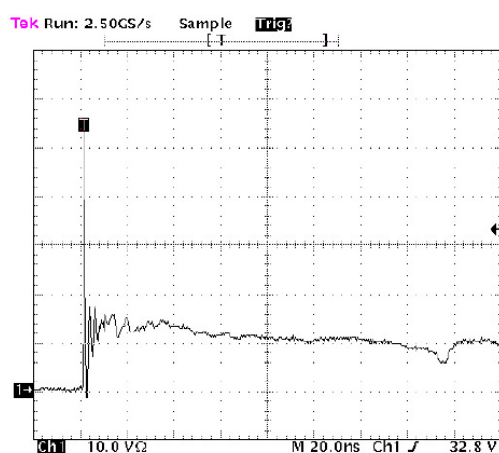


Figure1. Clamping waveform of positive 8KV ESD contact

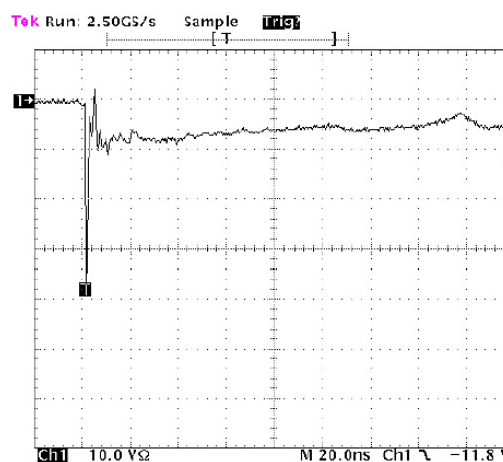
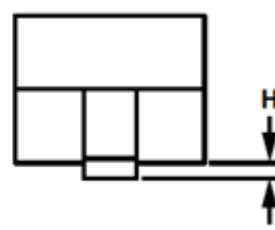
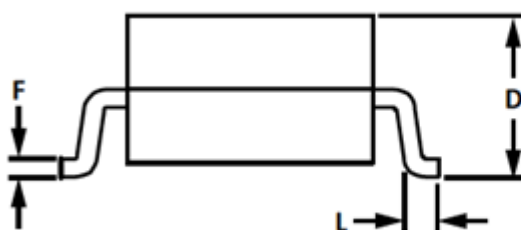
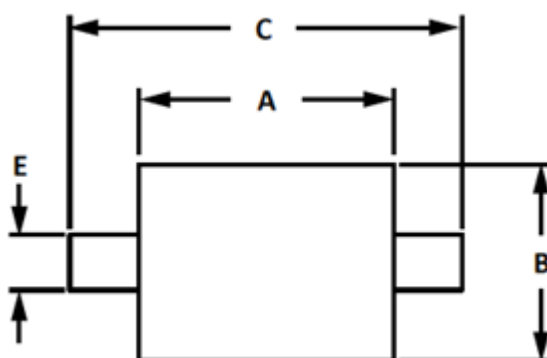


Figure2. Clamping waveform of negative 8KV ESD contact

DEVICE OUTLINE

<i>Outline Dimension</i>				
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	1.60	1.80	0.062	0.070
B	1.15	1.35	0.045	0.053
C	2.30	2.70	0.090	0.105
D	0.80	1.15	0.031	0.045
E	0.25	0.40	0.010	0.016
F	0.089	0.177	0.003	0.007
H	0.00	0.10	0.000	0.004
L	0.08TYP		0.003TYP	



LAYOUT PAD DIMENSION

<i>Layout PAD Dimension</i>				
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	2.75	2.95	0.108	0.116
B	0.53	0.73	0.021	0.029
C	0.73	0.93	0.029	0.037



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