
Tiny Package Bi-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)
- ◆ IEC61000-4-5 (Surge) 10.0 (8/20us)

Applications

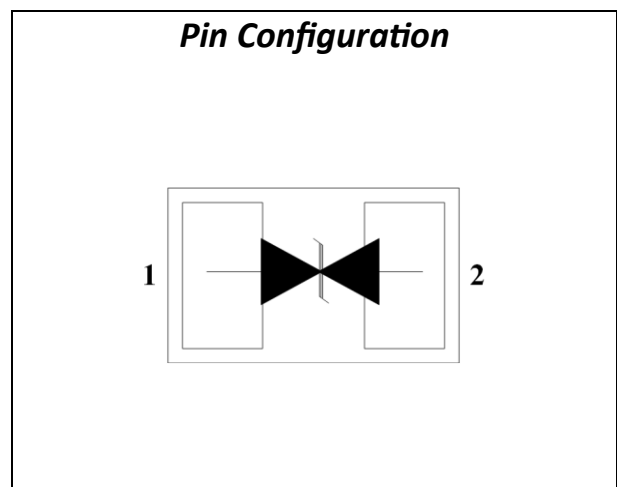
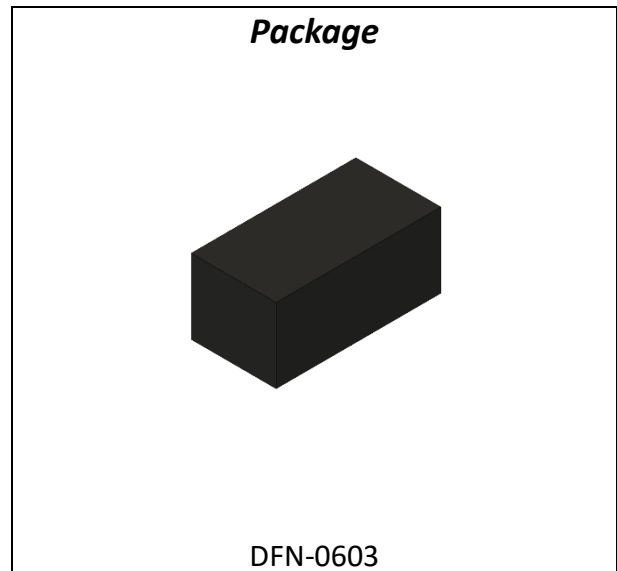
- ◆ Networking
- ◆ Embedded System
- ◆ Handheld Device
- ◆ Computer

Features

- ◆ 70W Peak Pulse Power
- ◆ Low Clamping Voltage
- ◆ Low Leakage Current
- ◆ Single Line, Bi-Directional

Mechanical Characteristics

- ◆ DFN-0603 Package (0201)
- ◆ Weight 0.2 Milligram (Approximate)
- ◆ Flammability Rating UL94V-0
- ◆ Lead Free Plating
- ◆ Reel Size 7"
- ◆ 12000 PCS Per Reel



DEVICE CHARACTERISTICS

Maximum Rating			
Parameter	Symbol	Value	Unit
Peak Pulse Power	P _{PP}	70	Watt
Lead Soldering Temperature	T _L	260 (10s)	°C
Operating Temperature Range	T _J	-40~125	°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)
NLES1V8CM	18	1.8	2.3	7.0	10.0	1.0	25.0



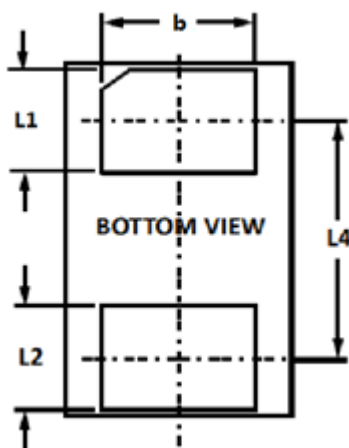
Figure1. Clamping waveform of positive 8KV ESD contact



Figure2. Clamping waveform of negative 8KV ESD contact

DEVICE OUTLINE

<i>Outline Dimension</i>				
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	0.55	0.65	0.021	0.026
B	0.25	0.35	0.009	0.014
C	0.30TYP		0.30TYP	
H	0.02TYP		0.02TYP	
L1	0.20	0.30	0.008	0.012
L2	0.14	0.24	0.005	0.009
L4	0.35TYP		0.35TYP	



LAYOUT PAD DIMENSION

<i>Layout PAD Dimension</i>				
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	0.64	0.70	0.025	0.028
B	0.35	0.45	0.013	0.018
C	0.22	0.30	0.008	0.012



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