

Ultra Low Capacitance TVS Diode Array

**IEC Compliance**

- ◆ IEC 61000-4-2 (ESD)  
8KV - Contact Discharge  
15KV - Air Discharge
- ◆ IEC 61000-4-4 (EFT) 40A (5/50ns)

**Application**

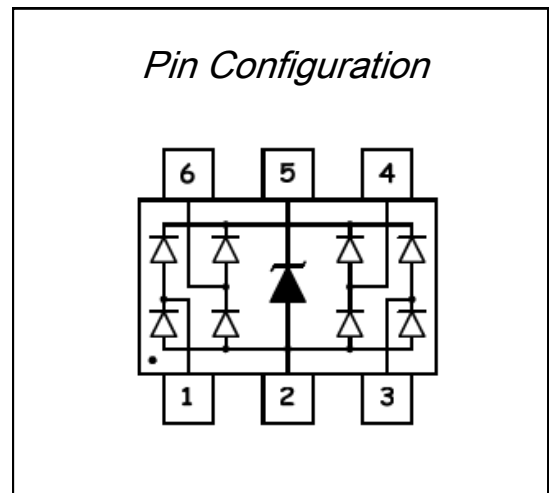
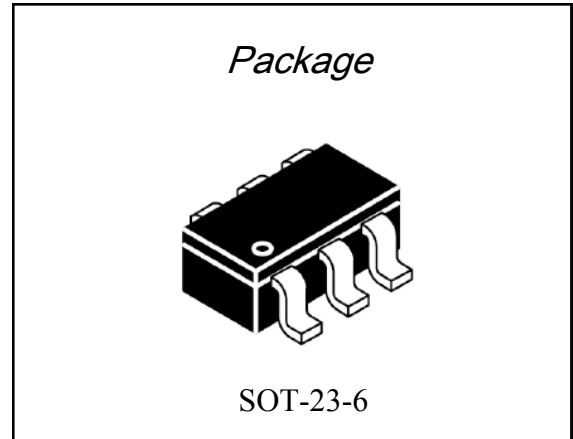
- ◆ Ethernet Application
- ◆ Embedded System
- ◆ Handheld Device
- ◆ Computer

**Features**

- ◆ 80W Peak Pulse Power
- ◆ Low Clamping Voltage
- ◆ Low Leakage Current
- ◆ Protect 4-Line and Power Bus

**Mechanical Characteristics**

- ◆ SOT-23-6 Package
- ◆ Weight 16 Milligram (Approximate)
- ◆ Flammability Rating UL94V-0
- ◆ Lead Free Plating
- ◆ Reel Size 7"
- ◆ 3,000 PCS Per Reel



**DEVICE CHARACTERISTICS**

Maximum Rating			
Parameter	Symbol	Value	Units
Peak Pulse Power (tp=8/20us waveform)	P <sub>PP</sub>	80	Watt
Lead Soldering Temperature	T <sub>L</sub>	260 (10s)	°C
Operating Temperature Range	T <sub>J</sub>	-55~150	°C
Storage Temperature Range	T <sub>STG</sub>	-55~150	°C

Electrical Characteristics (@25 °C)							
Part Number	Device Marking	V <sub>RWM</sub> (Volt)	V <sub>B</sub> (Volt)	V <sub>C</sub> (Volt)	I <sub>PP</sub> (A)	I <sub>R</sub> (uA)	C <sub>J</sub> (pF)
NLSR05-04A	B05B	5	6	25	3	1	1

8/20us Clamping Characteristics					
8/20us Current (A)	1	2	3		
Clamping Voltage (Volt)	13	18	23		

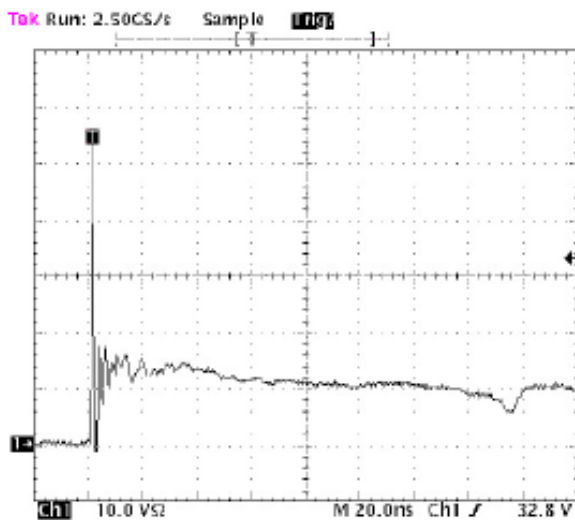


Figure1. Clamping waveform of positive 8KV ESD contact

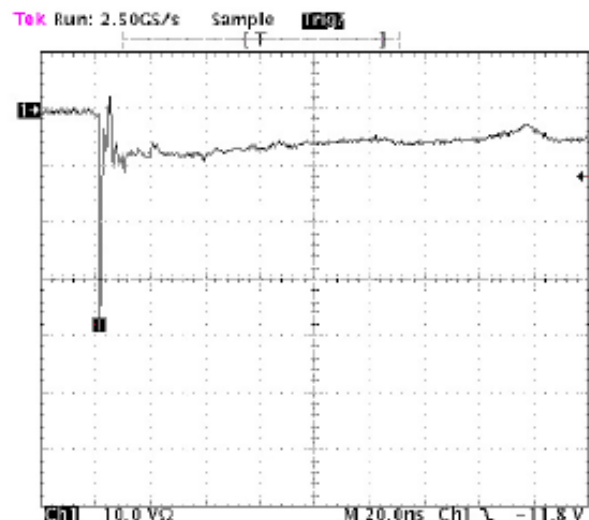


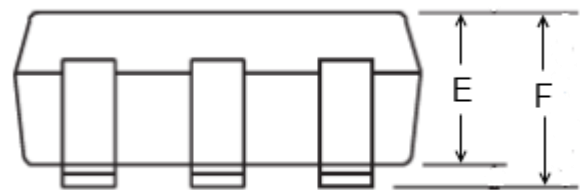
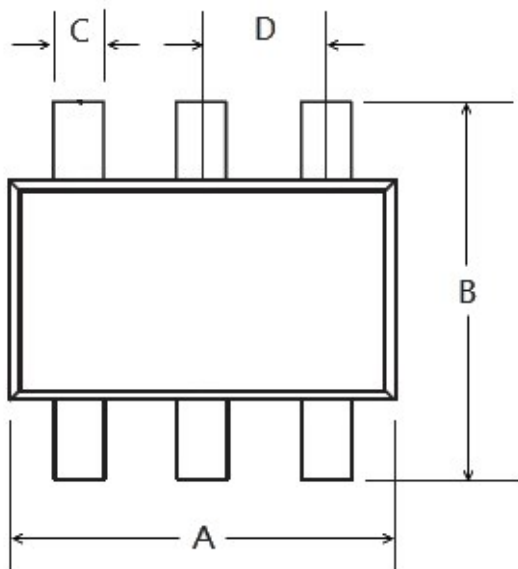
Figure2. Clamping waveform of negative 8KV ESD contact

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**DEVICE OUTLINE**

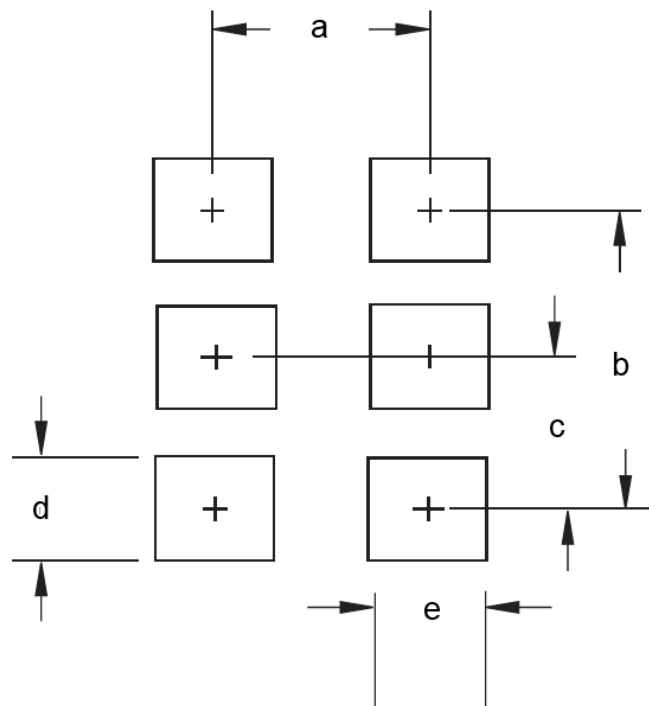

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Outline Dimension				
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	2.80	3.10	0.110	0.122
B	2.80TYP		0.110TYP	
C	0.25	0.50	0.010	0.020
D	0.95TYP		0.037TYP	
E	0.90	1.30	0.035	0.051
F	0.90	1.45	0.035	0.057



**LAYOUT PAD DIMENSION**

Layout PAD Dimension				
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
a	2.30	2.50	0.090	0.098
b	1.80	2.00	0.071	0.079
c	0.95TYP		0.037TYP	
d	0.60	0.80	0.024	0.031
e	0.90	1.10	0.035	0.043



Revision History	Modification Description
Rev.1.0	Initial Release
Rev.1.01	Edit Document Layout
Rev.1.02	Add Clamping Characteristics