

## APPLICATIONS

- ✧ Cellular Handsets and Accessories.
- ✧ High Speed I/O Lines.
- ✧ Notebooks & Handhelds.
- ✧ Peripherals.
- ✧ Personal Digital Assistants (PDA).
- ✧ Servers, Notebook, and Desktop PC.

## IEC COMPATIBILITY

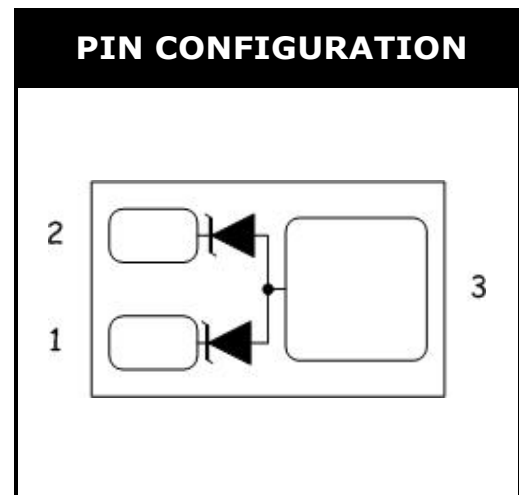
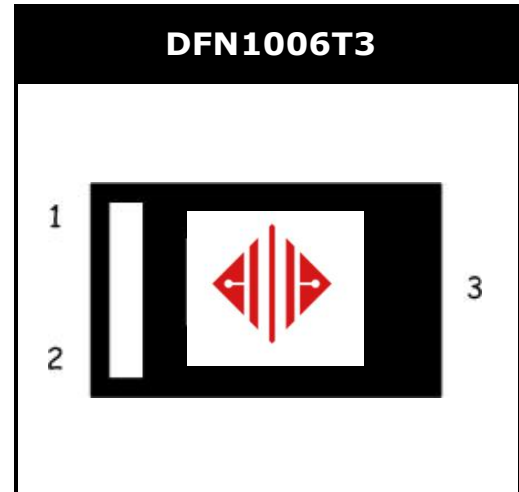
- ✧ IEC61000-4-2 (ESD)  $\pm 15\text{kV}$  (air),  $\pm 8\text{kV}$  (contact).
- ✧ IEC61000-4-4 (EFT) 40A (5/50ns).

## FEATURES

- ✧ 20 Watts Peak Pulse Power per Line ( $t_p=8/20\mu\text{s}$ ).
- ✧ Protects Four I/O Lines (Unidirection).
- ✧ Low Clamping Voltage.
- ✧ Working Voltages : 3.3, 5.0, 12V.
- ✧ Low Leakage Current.

## MECHANICAL CHARACTERISTICS

- ✧ DFN1006T3 (1.0x0.6mm) Package.
- ✧ Molding Compound Flammability Rating : UL 94V-O.
- ✧ Weight 0.6 Milligrams (Approximate).
- ✧ Quantity Per Reel : 5,000pcs.
- ✧ Reel Size : 7 inch.
- ✧ Lead Finish : Lead Free.



**DEVICE CHARACTERISTICS**
**MAXIMUM RATINGS (@ 25°C Unless Otherwise Specified)**

PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power (tp=8/20μs waveform)	P <sub>PP</sub>	20	Watts
Lead Soldering Temperature	T <sub>L</sub>	260 (10 sec.)	°C
Operating Temperature Range	T <sub>J</sub>	-55 ~ 150	°C
Storage Temperature Range	T <sub>STG</sub>	-55 ~ 150	°C

**ELECTRICAL CHARACTERISTICS PER LINE (@ 25°C Unless Otherwise Specified)**

PART NUMBER	V <sub>RWM</sub>	V <sub>B</sub>	I <sub>T</sub>	V <sub>C</sub>	V <sub>C</sub>		I <sub>R</sub>	C <sub>J</sub>
	(V) (max.)	(V) (min.)	(mA)	@1A (max.)	(max.)	(@A)	(μA) (max.)	(pF) (typ.)
ESDA33T3	3.3	4.5	1	8.5	12	2	0.5	9
ESDA05T3	5	6	1	9.8	15	2	0.5	8
ESDA12T3	12	13.3	1	17	19	2	0.5	6

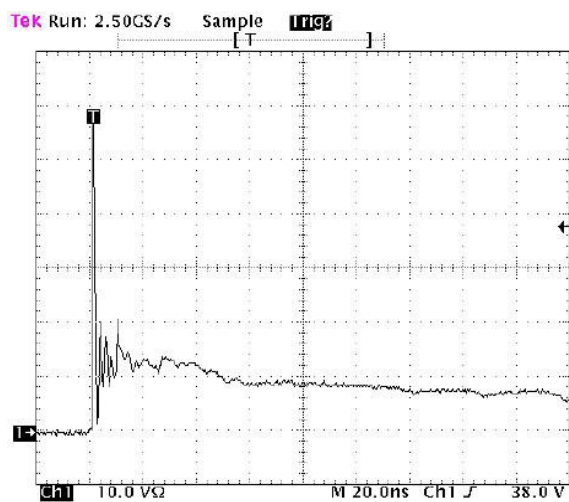


Figure 1. ESD Clamping Voltage Screenshot  
Positive 8 kV contact per IEC 61000-4-2

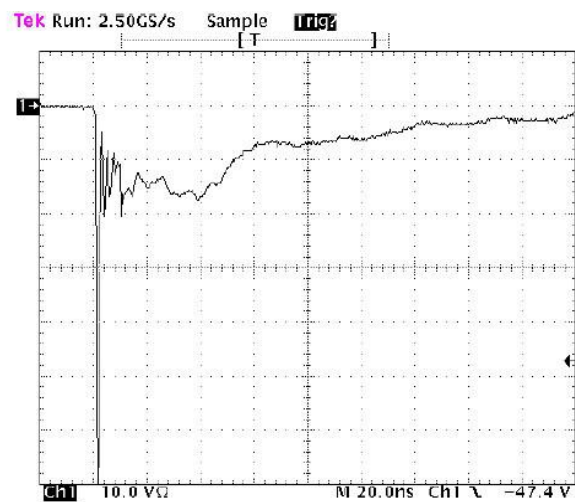
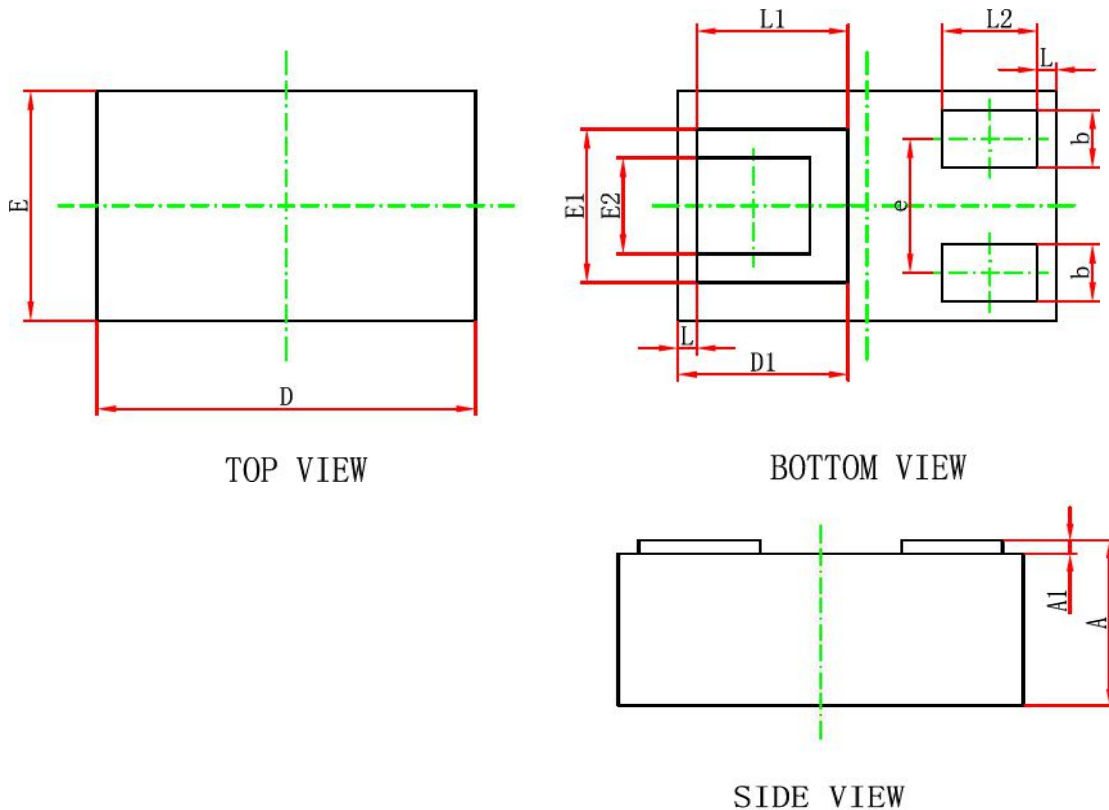


Figure 2. ESD Clamping Voltage Screenshot  
Negative 8 kV contact per IEC 61000-4-2

**DFN1006T3 PACKAGE OUTLINE & DIMENSIONS**


Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.350/0.450	0.450/0.550	0.014/0.018	0.018/0.022
A1	0.010	0.090	0.000	0.004
D	0.950	1.050	0.037	0.041
E	0.550	0.650	0.022	0.026
D1	0.450 REF.		0.017 REF.	
E1	0.400 REF.		0.016 REF.	
E2	0.200	0.300	0.008	0.012
b	0.100	0.200	0.004	0.008
e	0.300	0.400	0.012	0.016
L	0.000	0.050	0.000	0.002
L1	0.250	0.350	0.010	0.014
L2	0.200	0.300	0.008	0.012

 Website: <http://www.jksemi.com>

For additional information, please contact your local Sales Representative.

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