

APPLICATIONS

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

IEC COMPATIBILITY

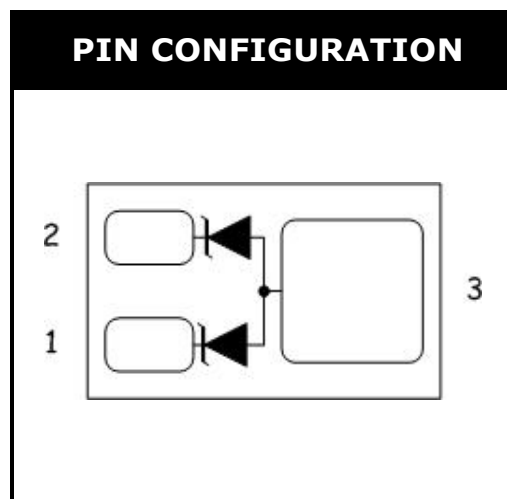
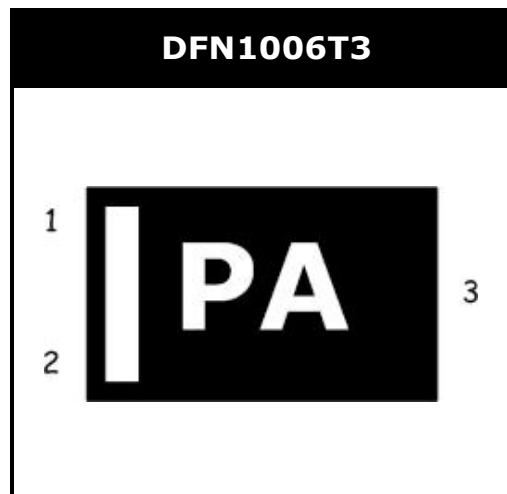
- ✧ IEC61000-4-2 (ESD) $\pm 15\text{kV}$ (air), $\pm 8\text{kV}$ (contact).
- ✧ IEC61000-4-4 (EFT) 40A (5/50ns).

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 _{PP} | 20 | Watts |
| Lead Soldering Temperature | T _L | 260 (10 sec.) | °C |
| Operating Temperature Range | T _J | -55 ~ 150 | °C |
| Storage Temperature Range | T _{STG} | -55 ~ 150 | °C |

| ELECTRICAL CHARACTERISTICS PER LINE (@ 25°C Unless Otherwise Specified) | | | | | | | | | |
|---|----------------|-----------------------------------|---------------------------------|------------------------|---------------------------------|-------------------------------|---|----------------------------------|----------------------------------|
| PART NUMBER | DEVICE MARKING | V _{RWM} (V) (max.) | V _B (V) (min.) | I _T (mA) | V _C @1A (max.) | V _C (max.) (@A) | | I _R (μA) (max.) | C _T (pF) (typ.) |
| ESDA33T3 | PA | 3.3 | 4.5 | 1 | 8.5 | 12 | 2 | 0.5 | 9 |
| ESDA05T3 | PB | 5 | 6 | 1 | 9.8 | 15 | 2 | 0.5 | 8 |
| ESDA12T3 | PC | 12 | 13.3 | 1 | 17 | 19 | 2 | 0.5 | 6 |

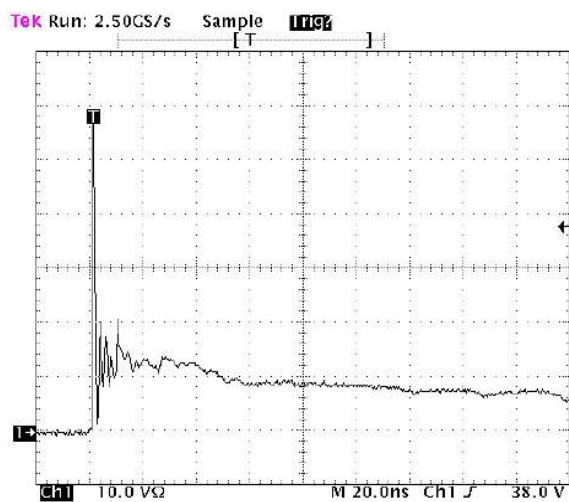


Figure 1. ESD Clamping Voltage Screenshot
Positive 8 kV contact per IEC 61000-4-2

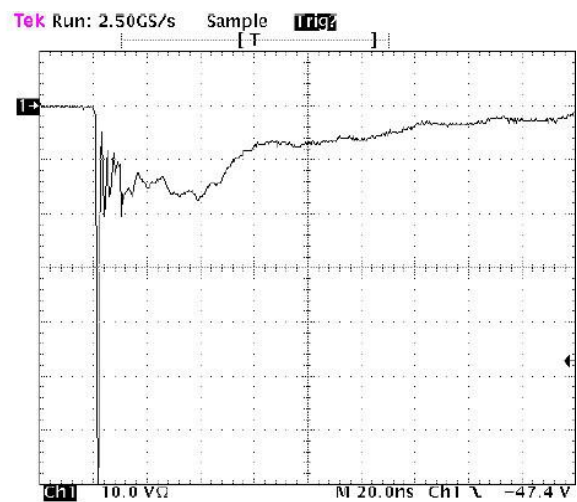
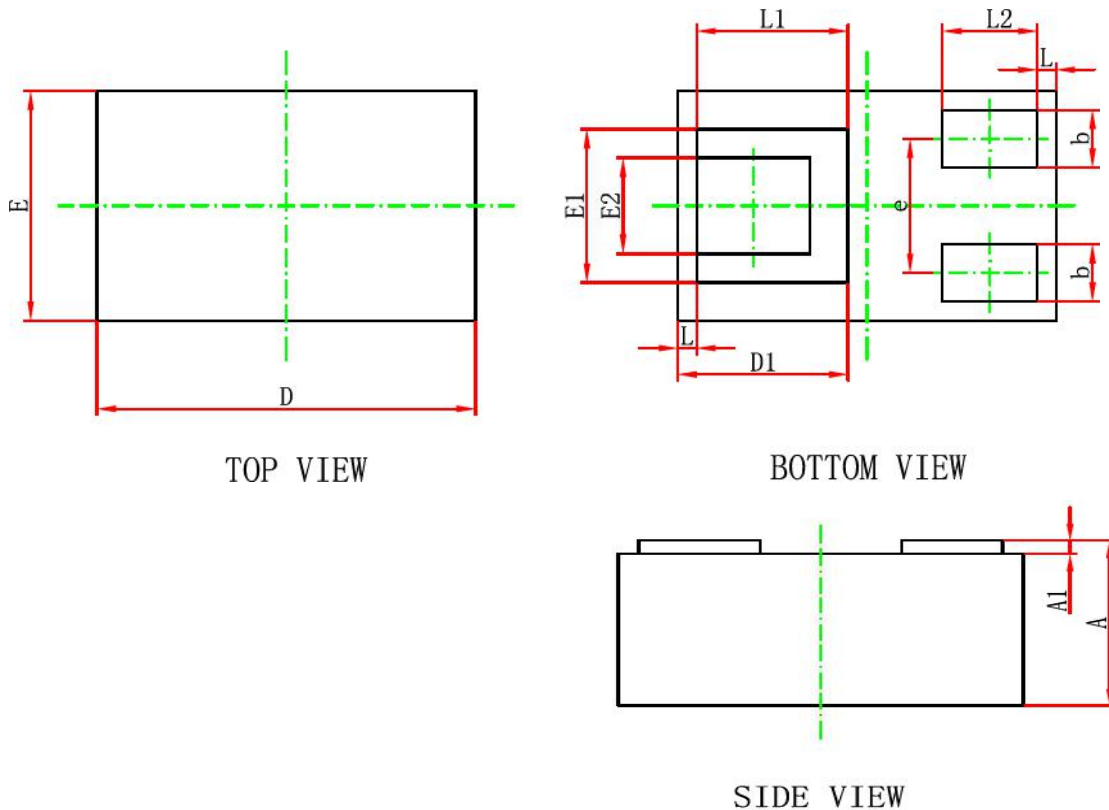


Figure 2. ESD Clamping Voltage Screenshot
Negative 8 kV contact per IEC 61000-4-2

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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