

### Features

- Ultra low leakage: nA level
- Operating voltage: 2.5V
- Low clamping voltage
- Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test
    - Air discharge:  $\pm 30\text{kV}$
    - Contact discharge:  $\pm 30\text{kV}$
  - IEC61000-4-5 (Lightning) 22A (8/20 $\mu\text{s}$ )
- RoHS Compliant

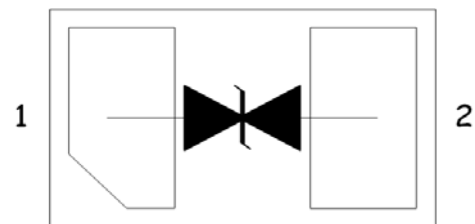
### Dimensions DFN1006



### Applications

- Cellular Handsets and Accessories
- Personal Digital Assistants
- Computer Interfaces Protection
- Control Signal Lines Protection
- Digital Cameras
- Peripherals
- Audio Players
- Keypads, Side Keys, LCD Displays

### Pin Configuration



### Mechanical Characteristics

- Package: DFN1006
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel: 10,000pcs
- Reel Size: 7 inch
- Device Marking: D56

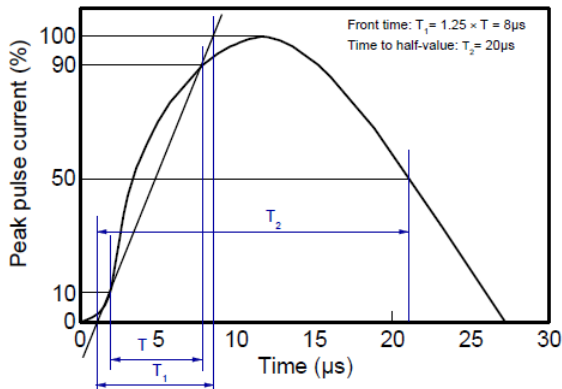
### Absolute Maximum Ratings (T<sub>amb</sub>=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 $\mu\text{s}$ )	P <sub>pp</sub>	310	W
ESD per IEC 61000-4-2 (Air)	V <sub>ESD</sub>	$\pm 30$	Kv
ESD per IEC 61000-4-2 (Contact)		$\pm 30$	
Operating Temperature Range	T <sub>J</sub>	-55 to +150	°C
Storage Temperature Range	T <sub>STJ</sub>	-55 to +150	°C

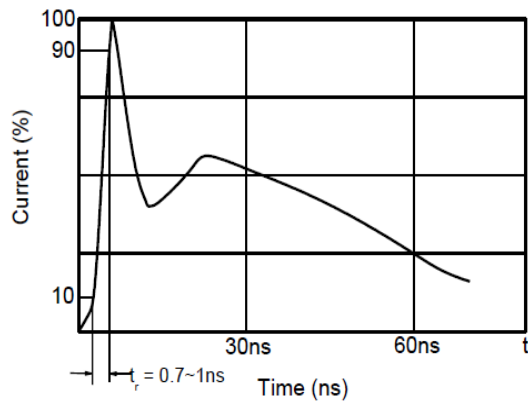
## Electrical Characteristics (TA=25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	$V_{RWM}$				2.5	V
Breakdown Voltage	$V_{BR}$	$I_T = 1mA$	3		4.2	V
Reverse Leakage Current	$I_R$	$V_{RWM} = 2.5V$			0.5	$\mu A$
Clamping Voltage	$V_C$	$I_{PP} = 1A$ (8 x 20 $\mu s$ pulse)			6	V
Clamping Voltage	$V_C$	$I_{PP} = 22A$ (8 x 20 $\mu s$ pulse)			14	V
Junction Capacitance	$C_J$	$V_R = 0V, f = 1MHz$			60	pF

## Typical Performance Characteristics ( $T_A=25^\circ\text{C}$ unless otherwise Specified)



8/20 $\mu\text{s}$  waveform per IEC61000-4-5



Contact discharge current waveform per IEC61000-4-2

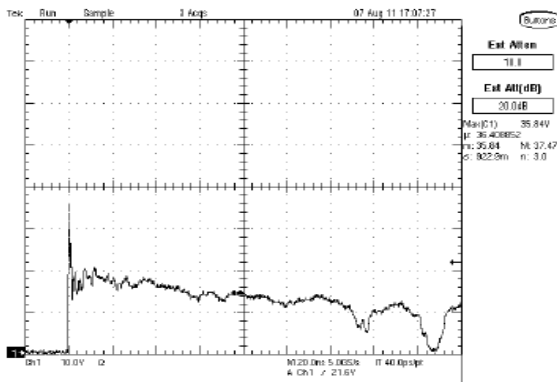


Fig1. ESD Clamping Voltage Screenshot Positive 8 kV Contact per IEC61000-4-2

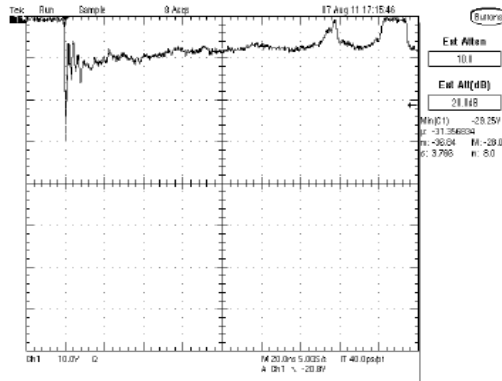
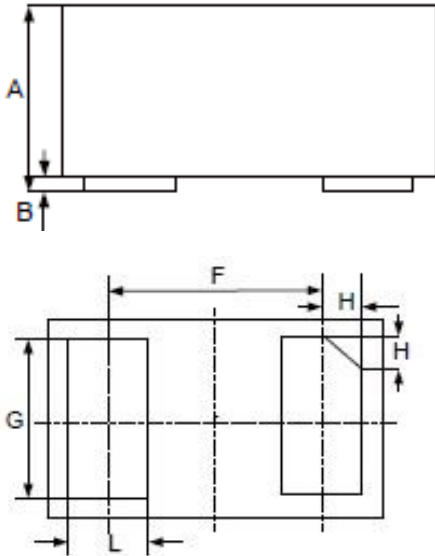


Fig2. ESD Clamping Voltage Screenshot Negative 8 kV Contact per IEC61000-4-2

## DFN1006 PACKAGE OUTLINE & DIMENSIONS



DIM	MILIMETER	
	MIN (mm)	MAX (mm)
A	0.34	0.55
B	0	0.05
D	0.95	1.08
E	0.55	0.68
F	0.65(Typ)	
G	0.40	0.60
H	0.07	0.17
L	0.20	0.30