



Transient Voltage Suppressors for ESD Protection

Low Capacitance**Features**

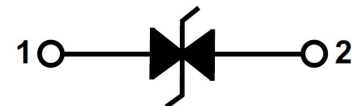
- ◆ Operating Voltage: 5.0 V
- ◆ Low Leakage: nA Level
- ◆ Low Capacitance
- ◆ Extremely-Low Clamping Voltage
- ◆ RoHS compliant

DFN1006**Applications**

- ◆ Cellular Handsets & Accessories
- ◆ Digital Visual Interface (DVI)
- ◆ RF Circuits
- ◆ Display Port
- ◆ USB Ports

Mechanical Characteristics

- ◆ DFN1006 (1.0x0.6x0.5mm) Package
- ◆ Weight 0.5 Milligrams (Approximate)
- ◆ Quantity Per Reel : 10,000pcs
- ◆ Reel Size : 7 inch
- ◆ Lead Finish : Lead Free

Functional Diagram**Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise specified)**

Symbol	Parameter	Value	Units
T_L	Lead Soldering Temperature	260 (10sec)	$^\circ\text{C}$
T_J	Operating Temperature Range	-55 to +125	$^\circ\text{C}$
T_{STG}	Storage Temperature Range	-55 to +150	$^\circ\text{C}$
V_{ESD}	ESD per IEC61000-4-2 (Air)	± 25	kV
	ESD per IEC61000-4-2 (Contact)	± 25	

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SE05N6C01GK

Low Capacitance

Electrical Characteristics (T_A = 25 °C unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V _{RWM}	—	—	—	5.0	V
Breakdown Voltage	V _{BR}	I _T =1mA	6.5	7.5	9	V
Leakage Current	I _R	V _{RWM} = 5.0V,T=25°C	—	—	1.0	µA
Clamping Voltage	V _C	I _{PP} =1A,t _p =8/20µs	—	—	11	V
Clamping Voltage	V _C	I _{PP} =5A,t _p =8/20µs	—	20	--	V
Junction Capacitance	C _J	V _R =0V f = 1MHz	—	0.35	—	pF

Characteristic Curves

Fig1. 8/20 us Pulse Waveform

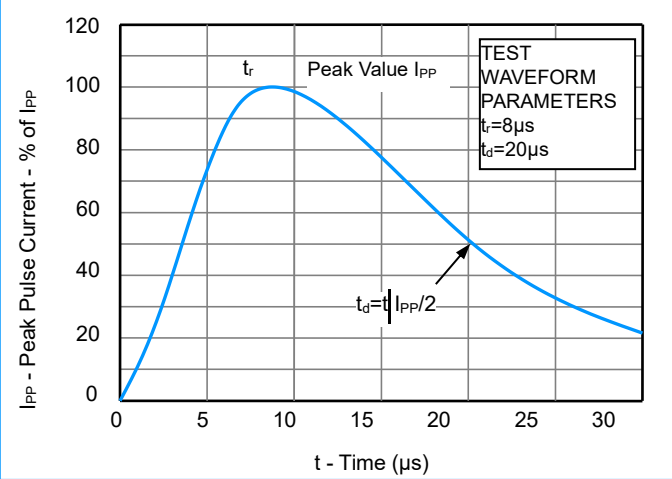


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

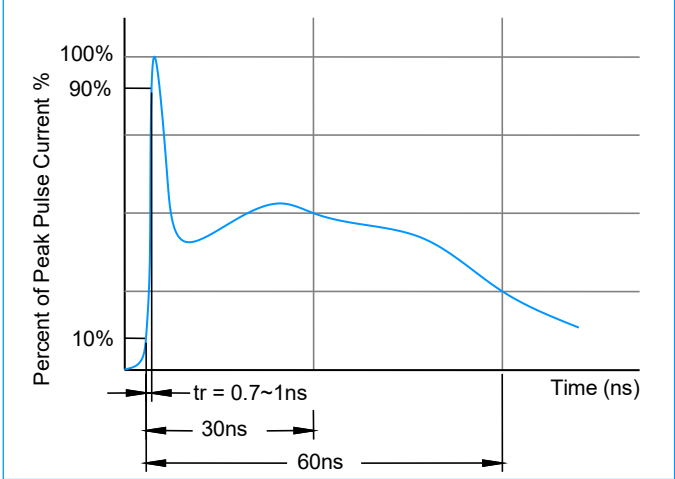


Fig4. Clamped +8 kV ESD Voltage Waveform

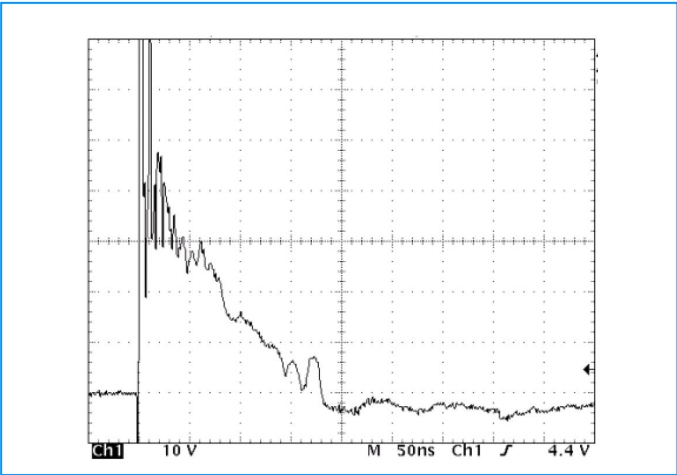
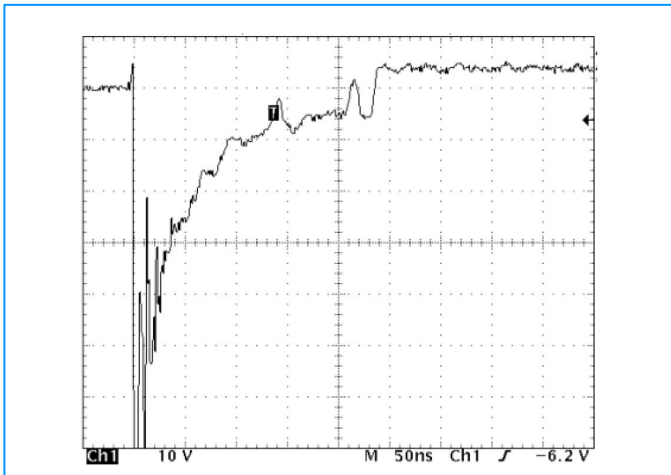


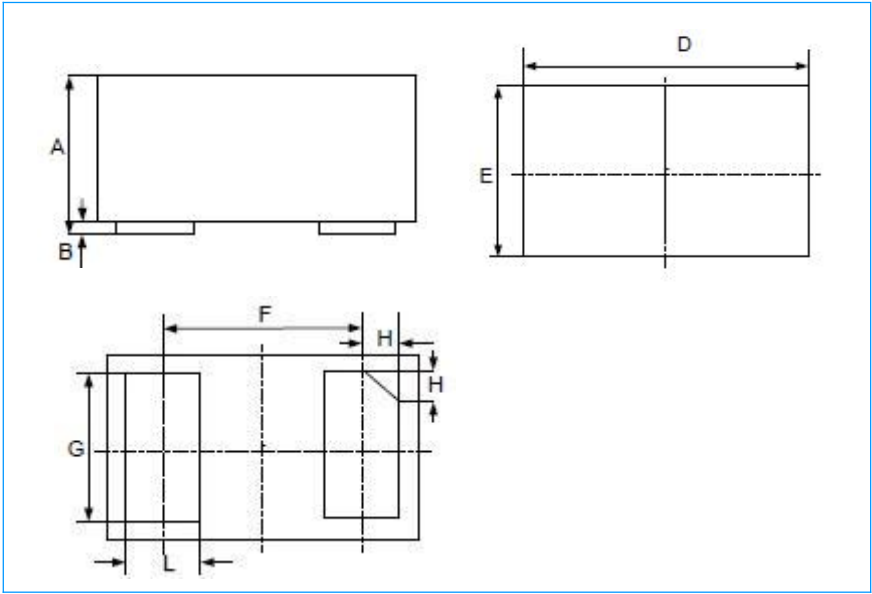
Fig5. Clamped -8 kV ESD Voltage Waveform



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DFN1006 Package Outline & Dimensions



Symbol	Millimeters	
	Min.	Max.
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