

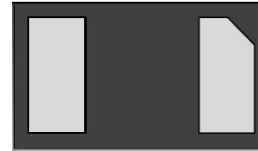
Transient Voltage Suppressors for ESD Protection

SE12N6R01GH

Features

- ◆ Working voltage: 12V
- ◆ Low capacitance: 7.5pF (Typical)
- ◆ Low leakage current: 1.0μA @ V_{RWM}
- ◆ Low clamping voltage
- ◆ Response Time is < 1 ns

DFN1006-2L



Applications

- ◆ Cellular phones audio
- ◆ MP3 players
- ◆ Digital cameras
- ◆ Portable applications

Pin Configuration



Mechanical Characteristics

- ◆ DFN1006-2L Package
- ◆ Molding Compound Flammability Rating : UL 94V-0
- ◆ Quantity Per Reel: 10,000pcs
- ◆ Reel Size: 7 inch

Absolute Maximum Rating

Symbol	Parameter	Value	Units
I_{PP}	Peak Pulse Current ($t_P=8/20\mu S$)	4	A
T_{STG}	Storage Temperature Range	-55 to +150	°C
T_{OP}	Operating Temperature Range	-55 to +150	°C
V_{ESD}	ESD per IEC 61000-4-2(Air) ESD per IEC 61000-4-2 (Contact)	±30 ±30	KV

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

Symbol	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	V _{RWM}	--	--	--	12	V
Reverse Breakdown Voltage	V _{BR}	I _T = 1mA	13.3	--	16	V
Reverse Leakage Current	I _R	V _{RWM} =12V	--	--	1.0	μA
Clamping Voltage	V _C	I _{PP} =1A, t _p =8/20μs	--	18	--	V
		I _{PP} =4A, t _p =8/20μs	--	25	--	V
Junction Capacitance	C _J	V _R =0V, f=1MHz	--	7.5	--	pF

Characteristic Curves

Fig1. 8/20μs Waveform per IEC61000-4-5

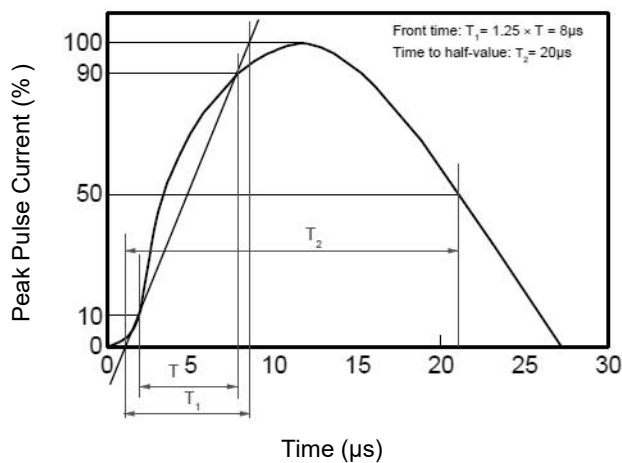


Fig2. Contact Discharge Current Waveform per IEC61000-4-2

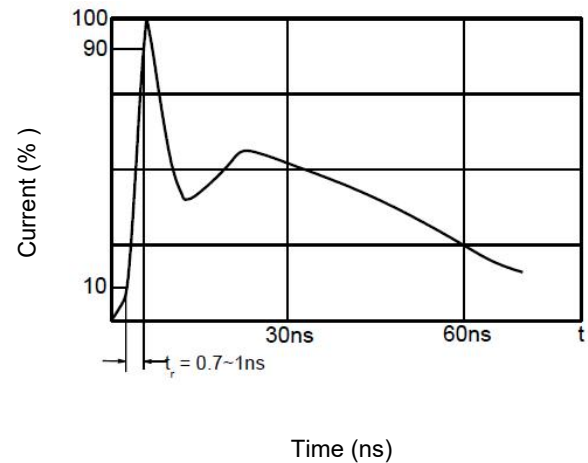


Fig3. ESD Clamping Voltage Screenshot Positive 8 kV Contact per IEC61000-4-2

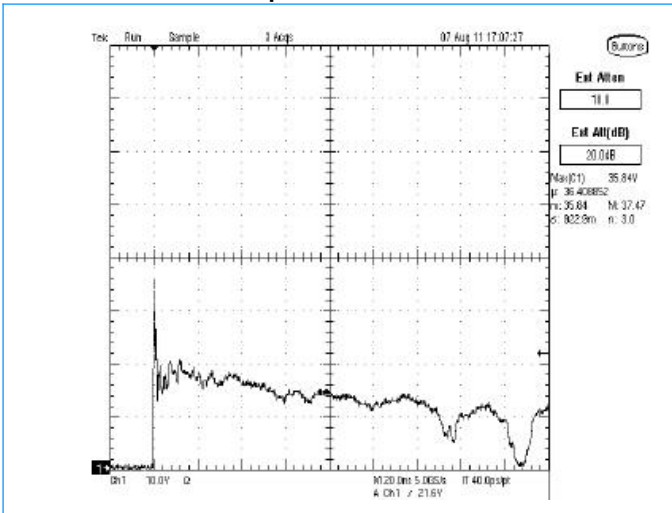
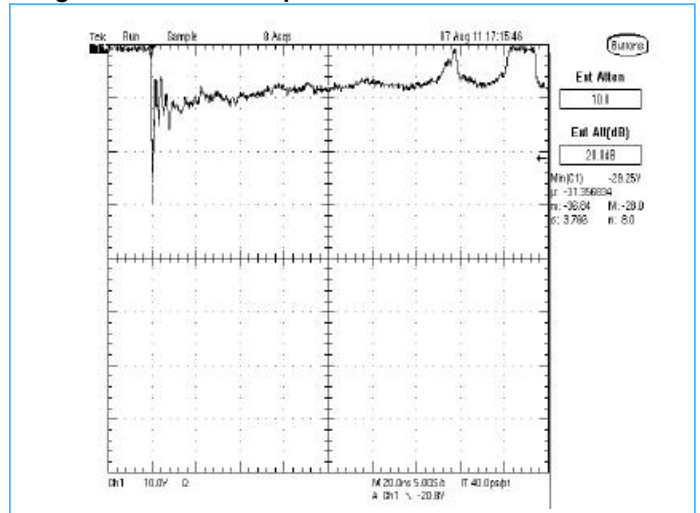


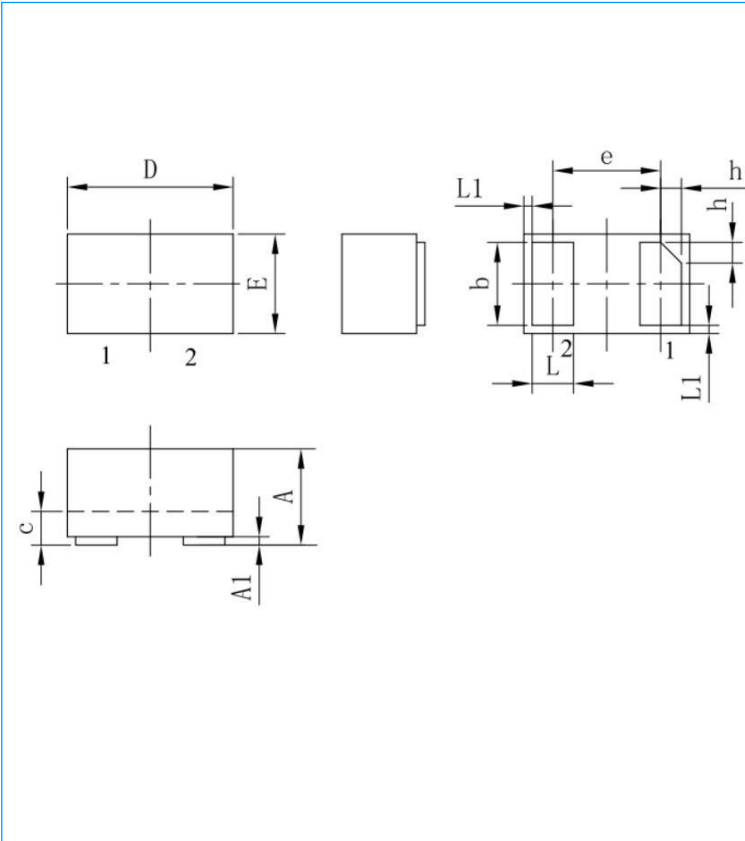
Fig4. ESD Clamping Voltage Screenshot Negative 8 kV Contact per IEC61000-4-2



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DFN1006-2L Package Outline & Dimensions



Symbol	Millimeters			Inches		
	Min	Typ	Max	Min	Typ	Max
A	0.45	0.50	0.55	0.018	0.020	0.022
A1	0.00	0.02	0.05	0.000	0.001	0.002
b	0.45	0.50	0.55	0.018	0.020	0.022
c	0.12	0.15	0.18	0.005	0.006	0.007
D	0.95	1.00	1.05	0.037	0.039	0.041
e	0.59BSC			0.026BSC		
E	0.55	0.60	0.65	0.022	0.024	0.026
L	0.25	0.30	0.35	0.010	0.012	0.013
L1	0.05REF			0.002REF		
h	0.07	0.12	0.17	0.003	0.005	0.007

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