

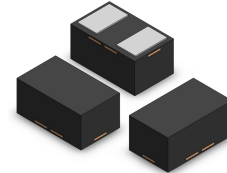
Transient Voltage Suppressors for ESD Protection

SE03N6C01HZ

Features

- ◆ Working voltage : 3.3V
- ◆ Low capacitance: 0.4pF (Typical)
- ◆ Low leakage current: 1.0μA @ V_{RWM}
- ◆ Low clamping voltage
- ◆ Response Time is < 1 ns

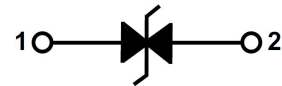
DFN1006



Applications

- ◆ Cell Phone Handsets and Accessories
- ◆ Portable Instrumentation
- ◆ Notebooks, Desktops, and Servers
- ◆ Digital Cameras

Functional Diagram



Mechanical Characteristics

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

Absolute Maximum Rating

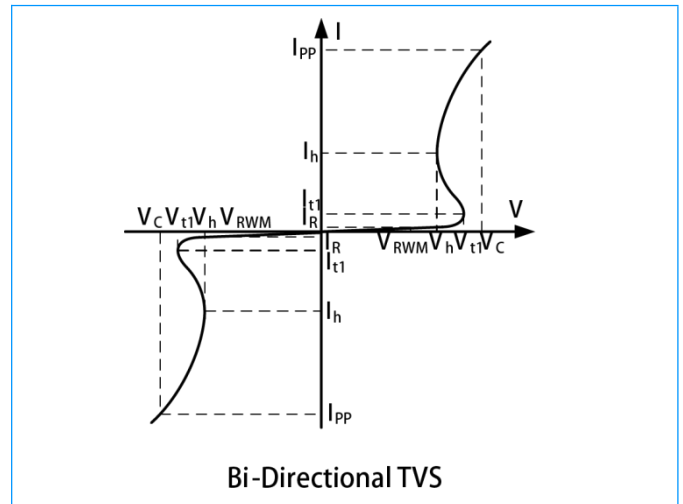
Symbol	Parameter	Value	Units
T_{LST}	Lead Soldering Temperature	260 (10 sec.)	°C
T_{STG}	Storage Temperature Range	-55 to +150	°C
T_{OPT}	Operating Temperature Range	-55 to +125	°C
V_{ESD}	ESD per IEC 61000-4-2(Air)	±20	KV
	ESD per IEC 61000-4-2 (Contact)	±15	

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I-V Curve Characteristics

Symbol	Parameter
I_{PP}	Maximum Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
V_{t1}	Trigger Voltage
I_{t1}	Trigger Current @ V_{t1}
V_h	Holding Voltage
I_h	Holding Current @ V_h



Electrical Characteristics (@ $T_A=25^\circ\text{C}$ Unless Otherwise Specified)

Symbol	Test Condition	Minimum	Typical	Maximum	Units
V_{RWM}	--	--	--	3.3	V
I_R	$V_{RWM}=3.3\text{V}, T=25^\circ\text{C}$	--	--	1.0	μA
V_{BR}	$I_T = 1\text{mA}$	4.1	--	7.0	V
V_C	$I_{PP}=1\text{A}, t_p=8/20\mu\text{s}$	--	--	12	V
V_C	$I_{PP}=4\text{A}, t_p=8/20\mu\text{s}$	--	--	27	V
C_J	$V_R=0\text{V}, f=1\text{MHz}$	--	0.4	--	pF

Characteristic Curves

Fig1. 8/20 μs Pulse Waveform

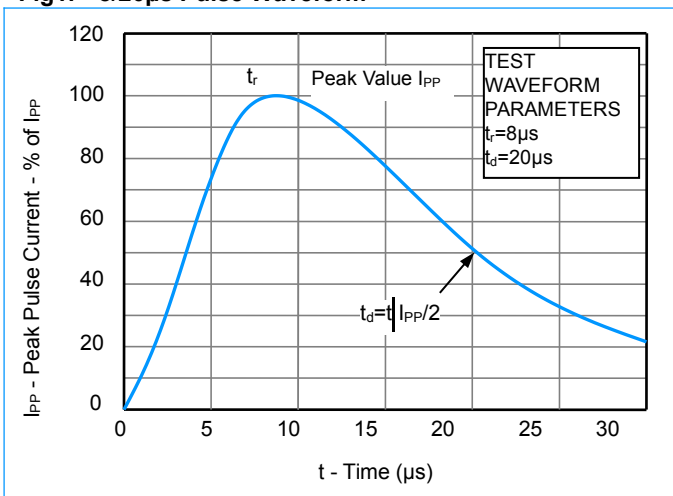
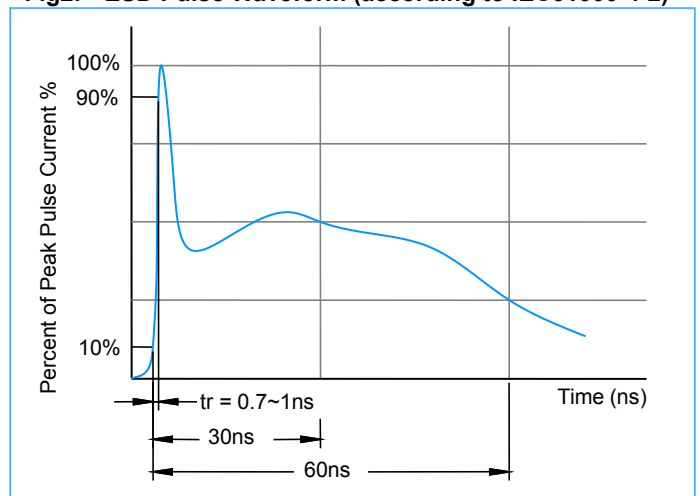


Fig2. ESD Pulse Waveform (according to IEC61000-4-2)



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Characteristic Curves (Continue)

Fig3. Clamped +8 kV ESD Voltage Waveform

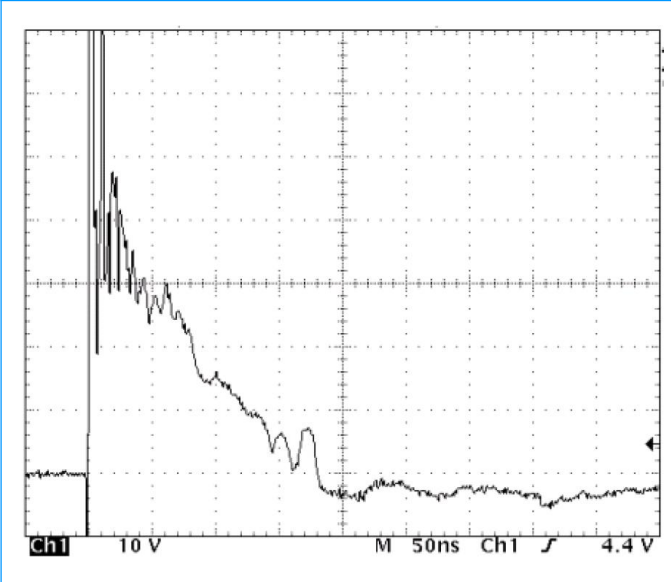
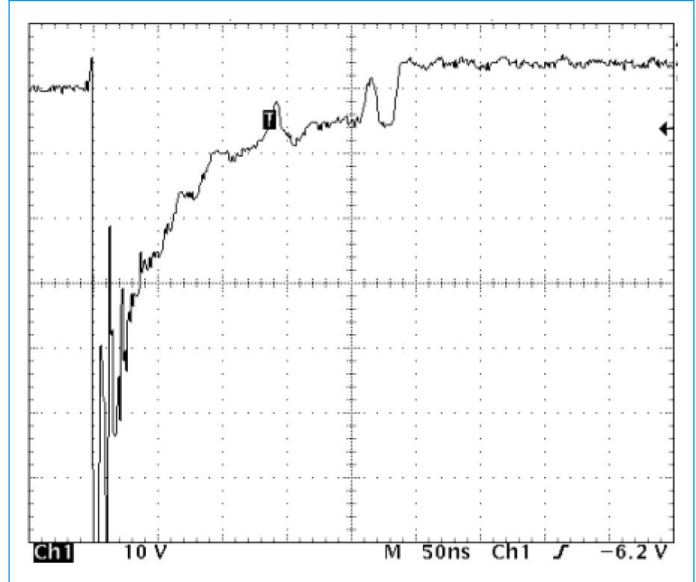
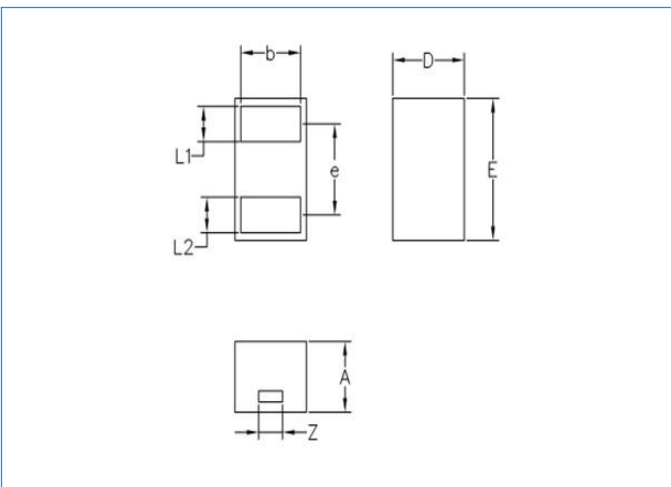


Fig4. Clamped -8 kV ESD Voltage Waveform

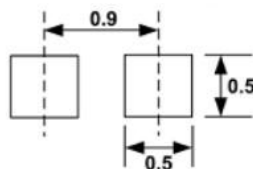


DFN1006-2L Package Outline & Dimensions (Unit: mm)



Symbol	Min	Nom	Max
D	0.55	0.60	0.65
E	0.95	1.00	1.05
L1	0.20	0.25	0.30
L2	0.20	0.25	0.30
A	0.45	0.50	0.55
Z	0.15	0.20	0.25
b	0.45	0.50	0.55
e	--	0.64 BSC	--

Dimension: Millimeter
(Stencil thickness: 0.1)



Soldering Footprint