

SE03N6L01GZ
Features

- ◆ Operating Voltage: 3.3V
- ◆ Low Leakage: nA Level
- ◆ Low Capacitance
- ◆ Extremely-Low Clamping Voltage
- ◆ RoHS compliant

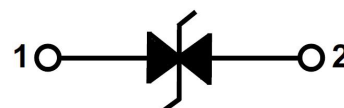
Applications

- ◆ 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
- ◆ Marking Code: 3C

DFN1006

Functional Diagram

Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Symbol	Parameter	Value	Units
T _L	Lead Soldering Temperature	260 (10sec)	°C
T _{OP}	Operating Temperature Range	-55 to +125	°C
T _{STG}	Storage Temperature Range	-55 to +150	°C
V _{ESD}	ESD per IEC61000-4-2 (Air)	±25	kV
	ESD per IEC61000-4-2 (Contact)	±25	

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Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V_{RWM}	--	--	--	3.3	V
Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$	5.0	--	6.5	V
Leakage Current	I_R	$V_{RWM} = 3.3\text{V}$	--	--	1.0	μA
Clamping Voltage	V_C	$I_{PP} = 1\text{A}, t_P = 8/20\mu\text{s}$	--	9.0	--	V
Clamping Voltage	V_C	$I_{PP} = 5\text{A}, t_P = 8/20\mu\text{s}$	--	19.0	--	V
Junction Capacitance	C_J	$V_R = 0\text{V}, f = 1\text{MHz}$	--	0.4	--	pF

Characteristic Curves

Fig1. 8/20 us Pulse Waveform

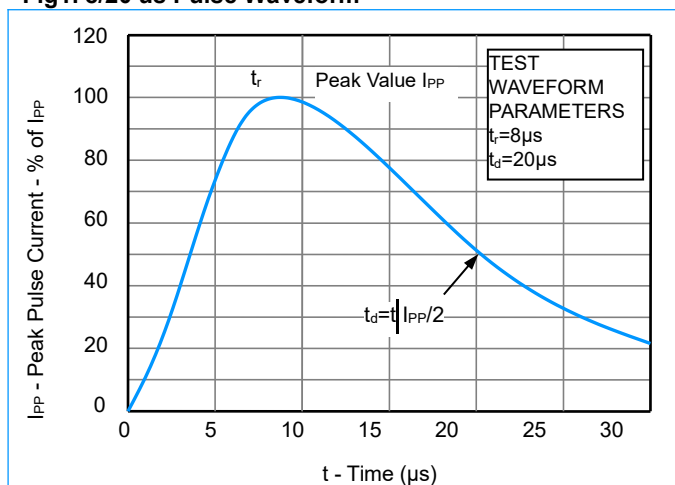


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

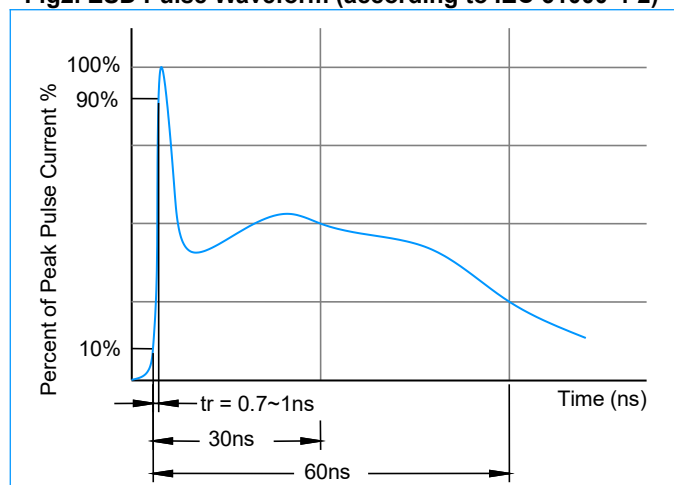


Fig4. Clamped +8 kV ESD Voltage Waveform

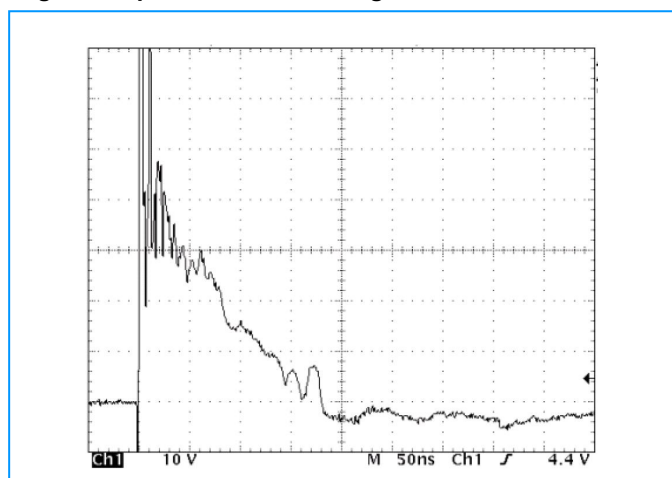
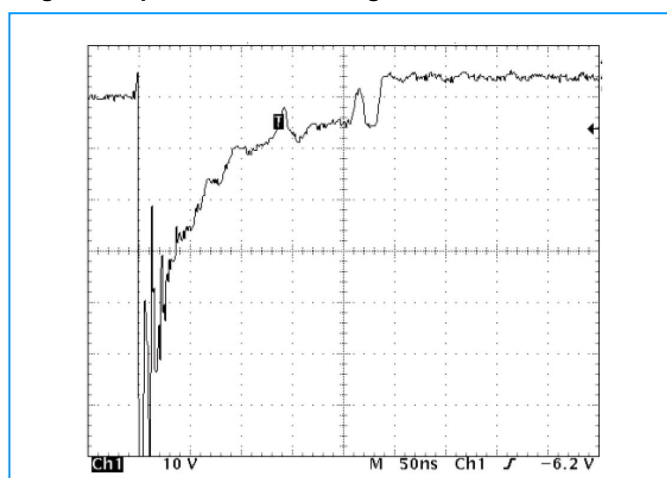
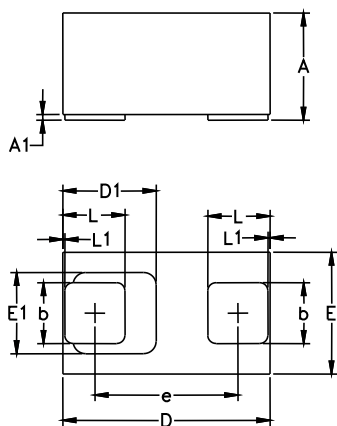
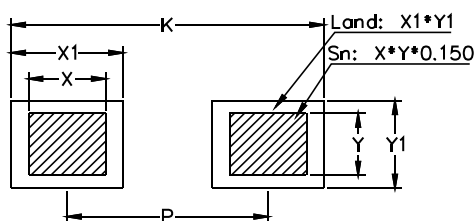


Fig5. Clamped -8 kV ESD Voltage Waveform



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DFN1006 Package Outline & Dimensions


Symbol	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.450	0.550	0.018	0.022
A1	0.010	0.070	0.000	0.003
D	0.950	1.050	0.037	0.041
E	0.550	0.650	0.022	0.026
D1	0.450 REF		0.018 REF	
E1	0.400 REF		0.016 REF	
b	0.275	0.325	0.011	0.013
e	0.675	0.725	0.027	0.029
L	0.275	0.325	0.011	0.013
L1	0.010 REF		0.000 REF	

Soldering Footprint


Symbol	Millimeters	Inches
K	1.4±0.05	0.055±0.002
P	0.9±0.025	0.035±0.001
X	0.354±0.025	0.014±0.001
Y	0.283±0.025	0.011±0.001
X1	0.5±0.025	0.020±0.001
Y1	0.4±0.025	0.016±0.001