

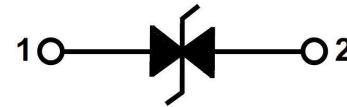
**SE05N6C01GZ**
**Features**

- ◆ Protects one data or I/O line
- ◆ Low capacitance
- ◆ Low clamping voltage
- ◆ IEC 61000-4-2, level 4
- ◆ IEC 61000-4-2 ( ESD ), > ±15KV ( air ),  
> ±8KV ( contact )

**DFN1006**

**Applications**

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

**Functional Diagram**

**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

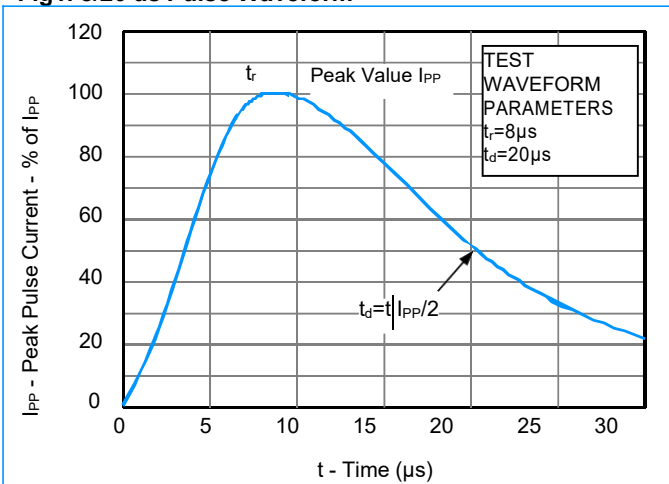
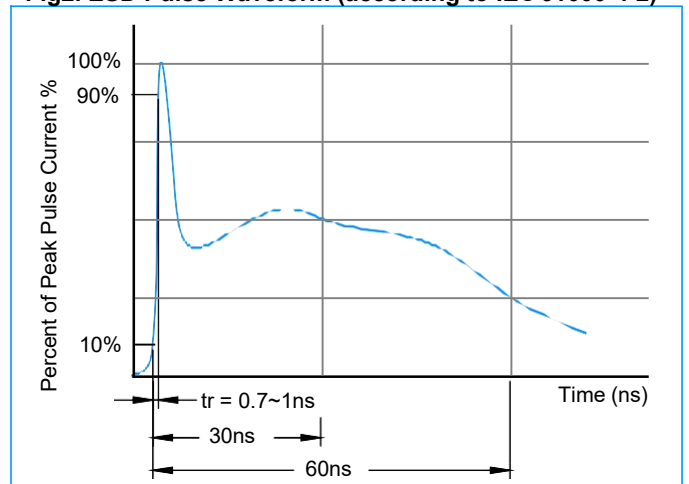
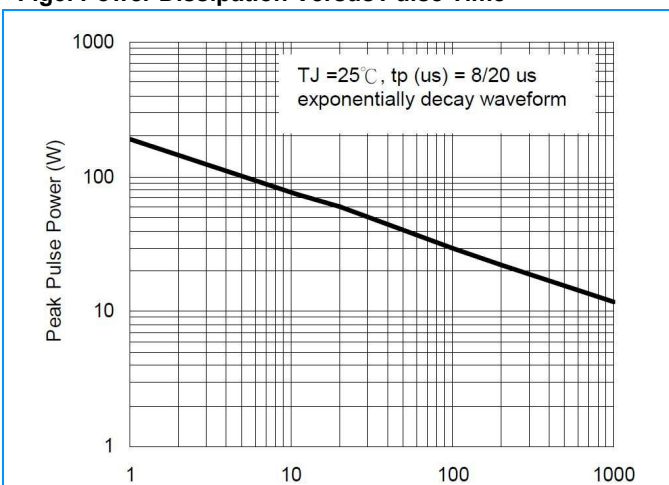
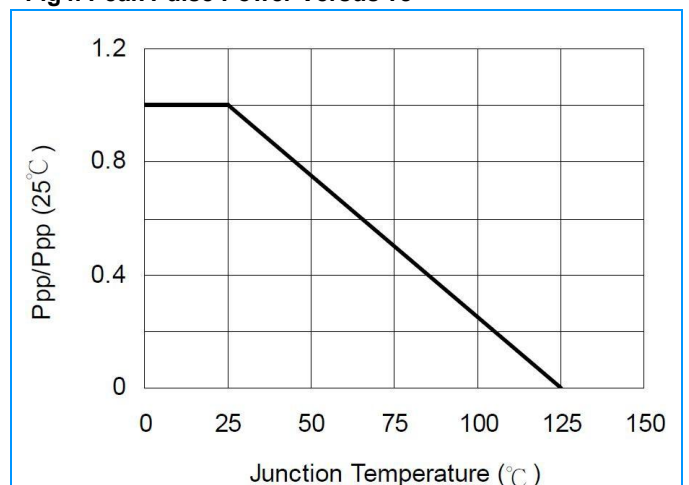
**Mechanical Characteristics**

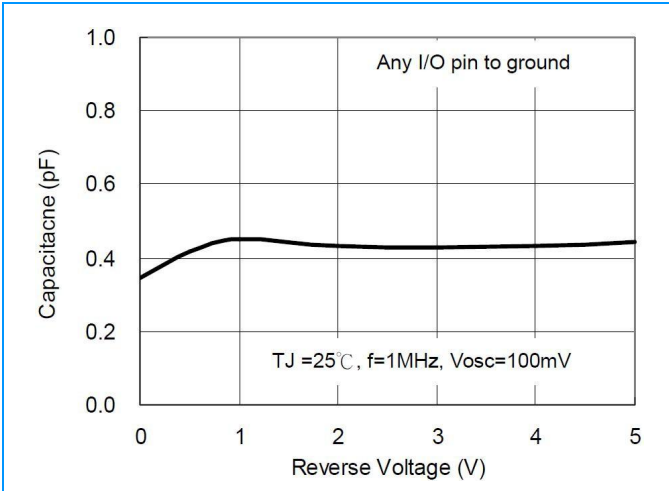
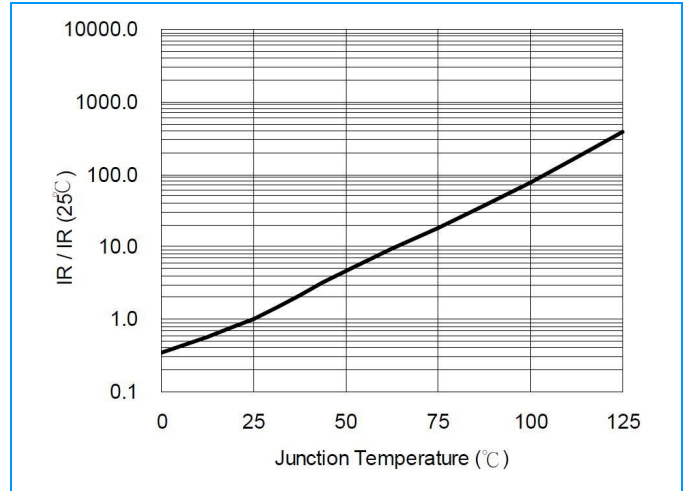
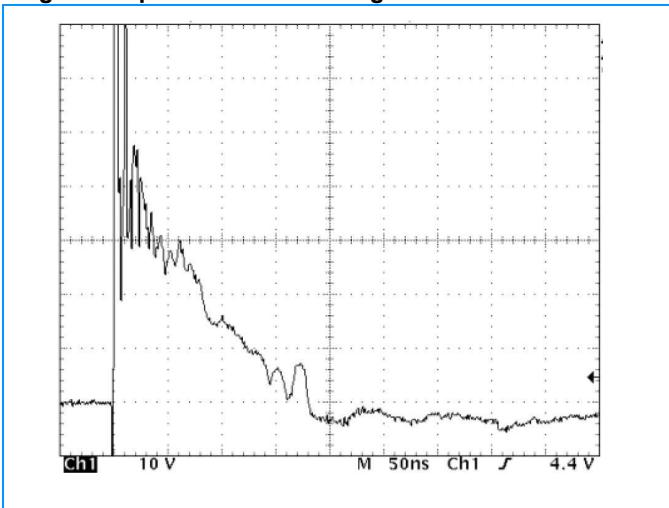
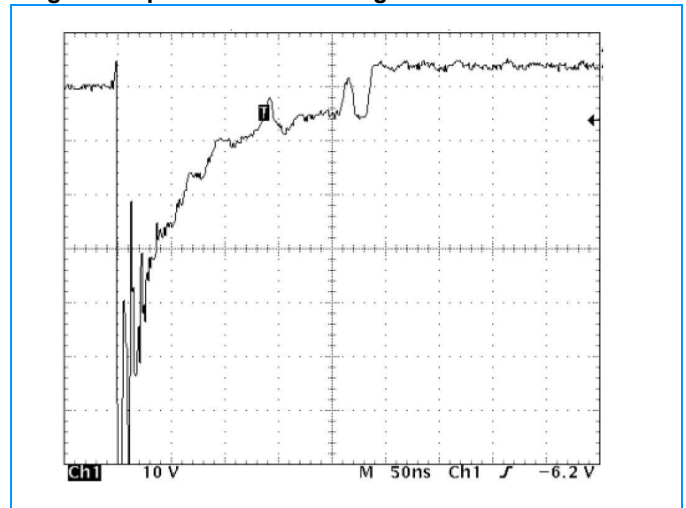
Symbol	Parameter	Value	Units
I <sub>PP</sub>	Peak Pulse Current (tp=8/20µs waveform)	4	A
T <sub>L</sub>	Lead Soldering Temperature	260 (10 sec)	°C
T <sub>J</sub>	Operating Junction Temperature Range	-55 to +125	°C
T <sub>STG</sub>	Storage Temperature Range	-55 to +150	°C
T <sub>OP</sub>	Operating Temperature Range	-55 to +150	°C

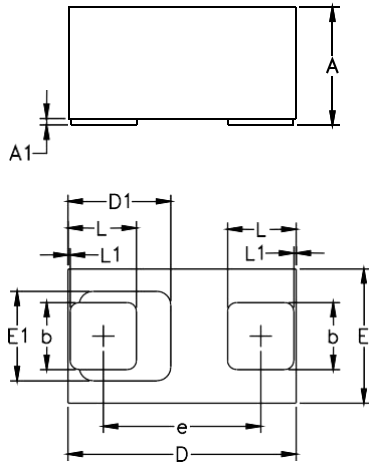
**SE05N6C01GZ**
**Electrical Characteristics (T<sub>A</sub> = 25°C)**

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	V <sub>RWM</sub>	--	--	--	5	V
Reverse Breakdown Voltage	V <sub>BR</sub>	I <sub>t</sub> = 1mA	6	8	--	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>RWM</sub> = +/-5V	--	--	100	nA
Junction Capacitance <sup>(1)</sup>	C <sub>J</sub>	V <sub>R</sub> = 0V, f = 1MHz	--	0.35	0.5	pF
Clamping Voltage <sup>(1)</sup>	V <sub>C</sub>	TLP=16A or ESD=8KV	--	15	--	V
Clamping Voltage <sup>(1)</sup>	V <sub>C</sub>	I <sub>PP</sub> = 1A , t <sub>p</sub> = 8/20μs	--	8	--	V
		I <sub>PP</sub> = 4A , t <sub>p</sub> = 8/20μs	--	11	--	V

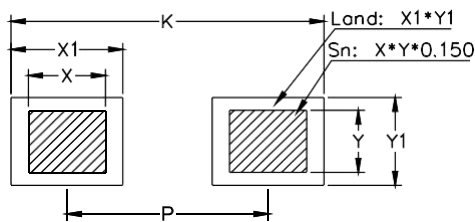
**Note:** (1) Guaranteed by design.

**Characteristic Curves**
**Fig1. 8/20 us Pulse Waveform**

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

**Fig3. Power Dissipation Versus Pulse Time**

**Fig4. Peak Pulse Power Versus T<sub>J</sub>**


**Characteristic Curves (Continue)**
**Fig5. Typical Junction Capacitance**

**Fig6. Reverse Leakage Current Versus TJ**

**Fig7. Clamped +8 kV ESD Voltage Waveform**

**Fig8. Clamped -8 kV ESD Voltage Waveform**


**SE05N6C01GZ**
**DFN1006 Package Outline & Dimensions**


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

**Soldering Footprint**


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