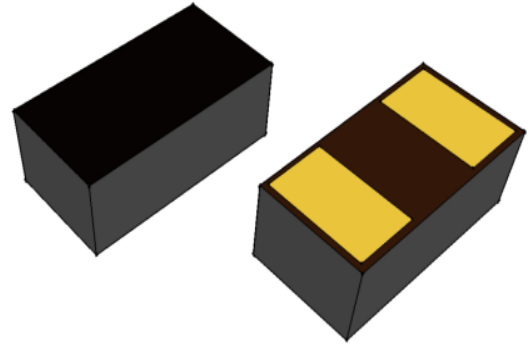




## Features

- The best ESD protection for high speed, low voltage applications
- RoHS compliant and halogen free
- Ultra low capacitance, 0.05 pF (typ.)
- Low leakage current (<100nA)
- Fast response time (<1ns)
- Bi-directional, single line protection
- Surface mount



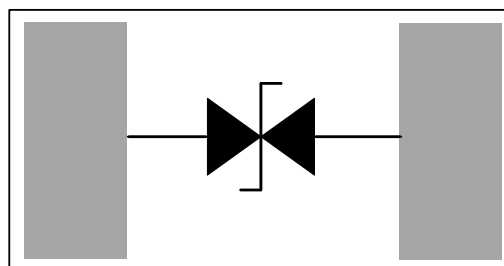
## Applications

- High Definition Multi-Media Interface(HDMI)
- Gigabit Ethernet
- Antennas
- High Speed Ethernet
- USB 2.0 and USB 3.0
- Lightning and Thunder Bolt Interface

## Mechanical Data

- Surface mount
- RoHS Compliant
- Halogen Free

## Schematic & PIN Configuration





### Absolute Maximum Rating

Rating	Symbol	Conditions	Value	Units
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	$V_{ESD}$		25 15	kV
Lead Soldering Temperature	$T_L$		260(10seconds)	°C
Operating Temperature	$T_O$		-55 to + 125	°C
Storage Temperature	$T_{stg}$		-55 to + 125	°C

### Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Continuous Operating Voltage	$V_{DC}$				5	V
Trigger Voltage	$V_T$	IEC61000-4-2 8KV contact discharge		300		V
Leakage Current	$I_L$	$V_{DC}=5V, T=25^{\circ}C$		10	100	nA
Clamping Voltage	$V_C$	IEC61000-4-2 8KV contact discharge		35		V
Capacitance	$C_P$	Measured at 10MHz		0.05		pF
ESD Pulse Withstand	Pulses	IEC61000-4-2 8KV contact discharge	1000			



### ESD Clamping Test

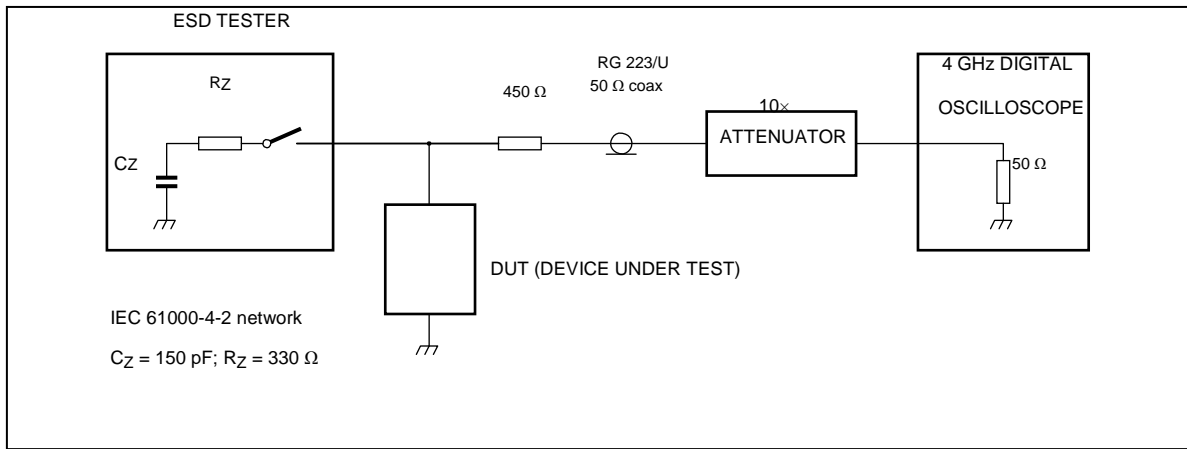


Fig.1 ESD Clamping Test Waveform

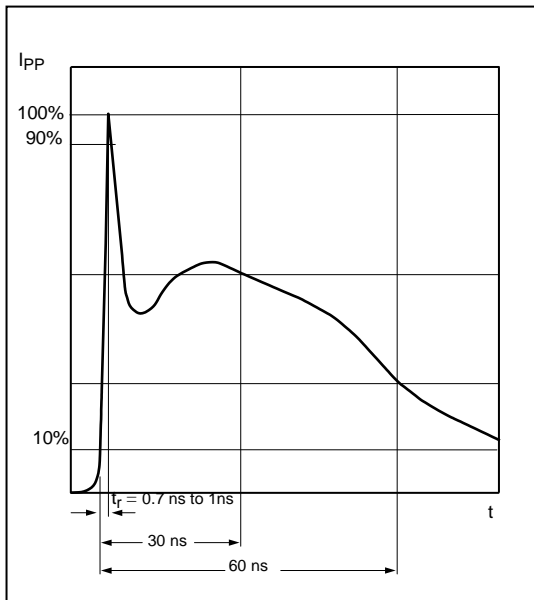


Fig.2 ESD Waveform after Clamping

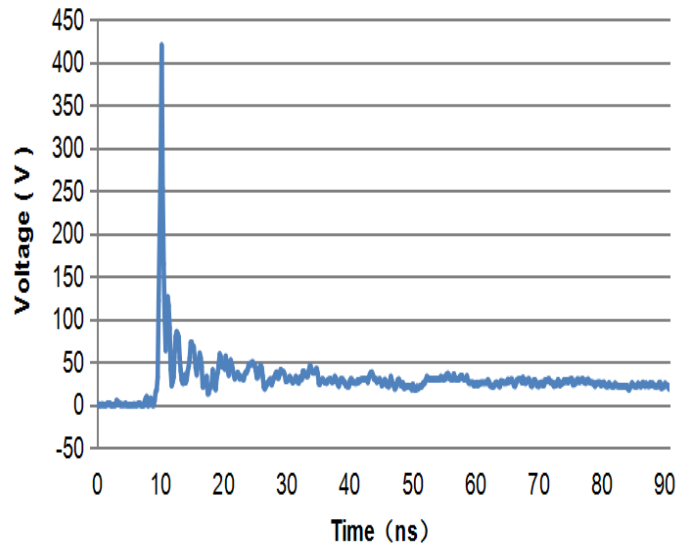
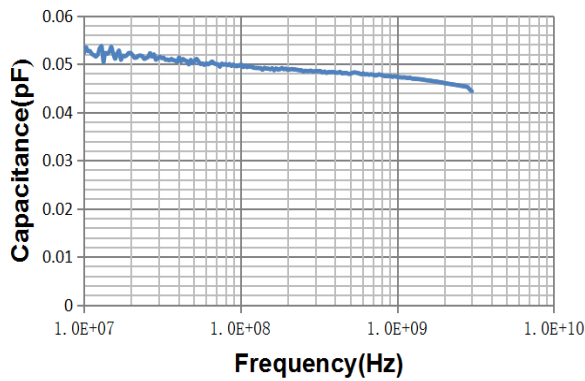
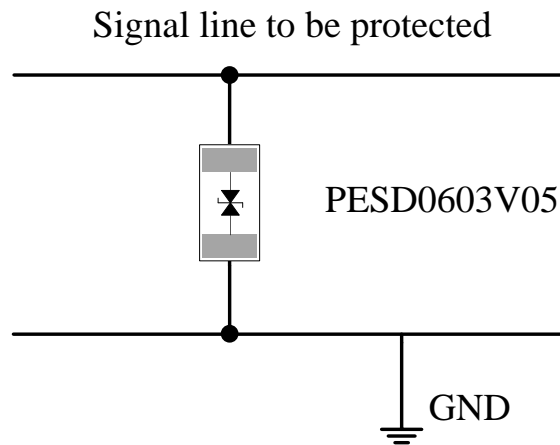


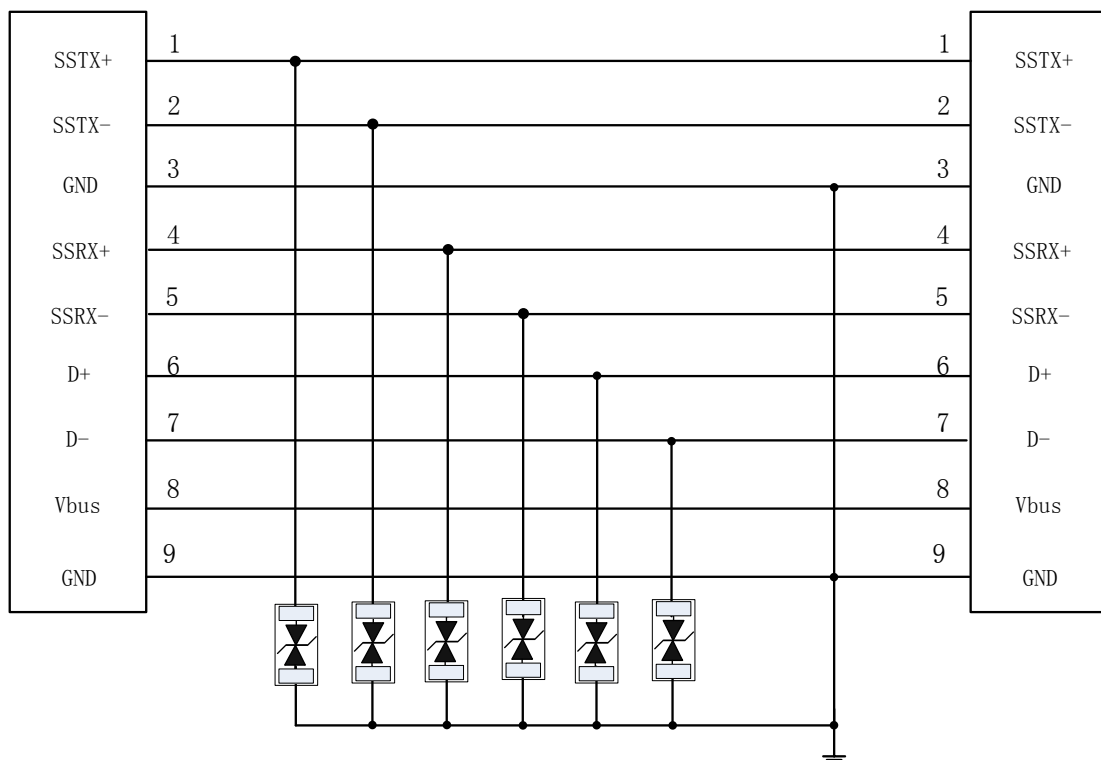
Fig.3 Capacitance VS Frequency



Application Information



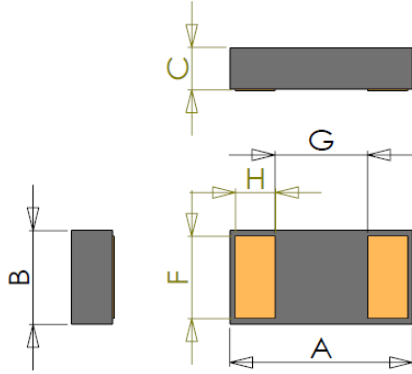
PESD0603V05 in Signal line protected



PESD0603V05 in USB3.0 application



### Outline Drawing



Symbol	Dimension			Unit
	Min	Typ	Max	
A	1.50	1.60	1.70	mm
B	0.70	0.80	0.90	
C	0.32	0.36	0.4	
H	0.345	0.365	0.385	
F	0.715	0.735	0.755	
G	0.78	0.80	0.82	