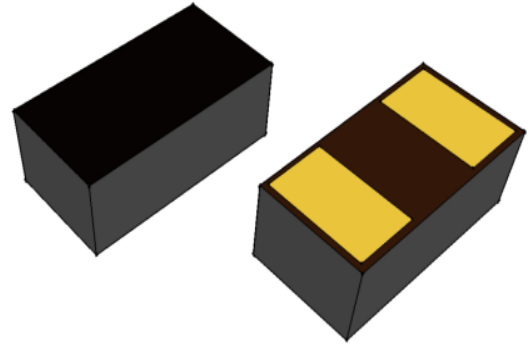




Features

- 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



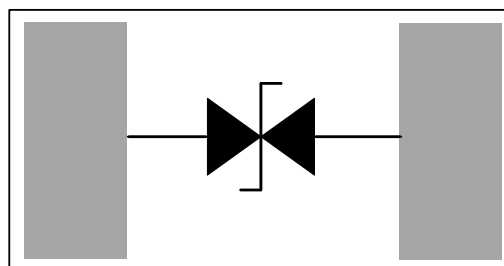
Applications

- 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

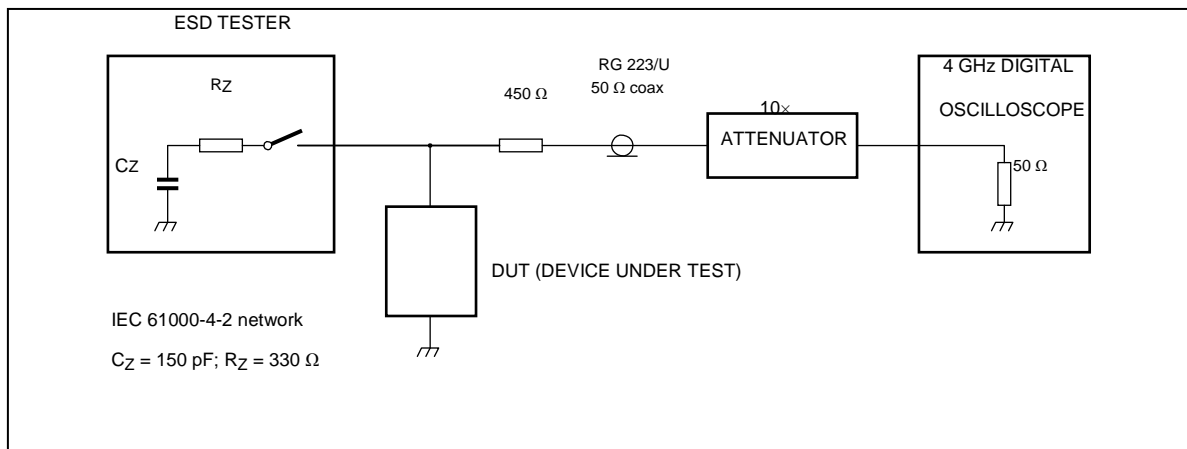


Fig.1 ESD Clamping Test Waveform

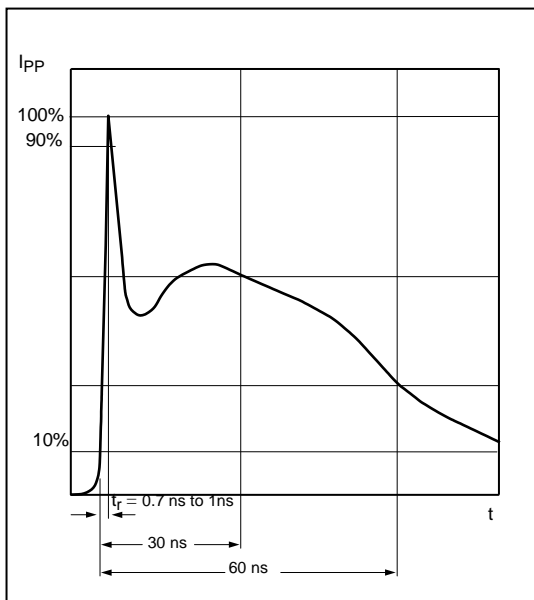


Fig.2 ESD Waveform after Clamping

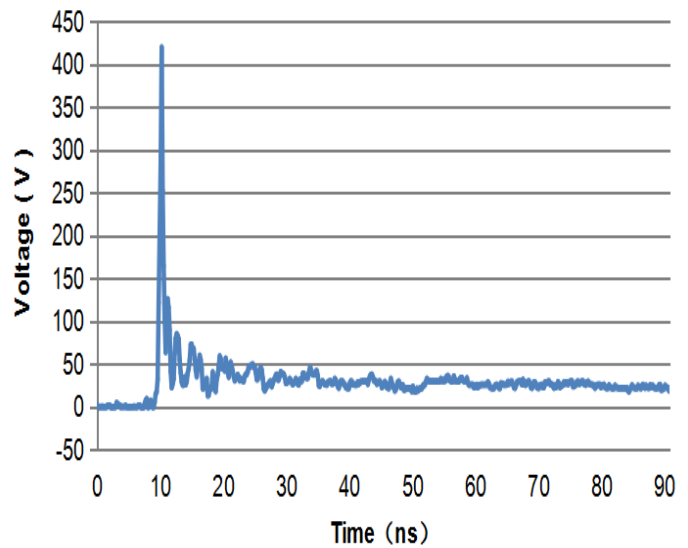
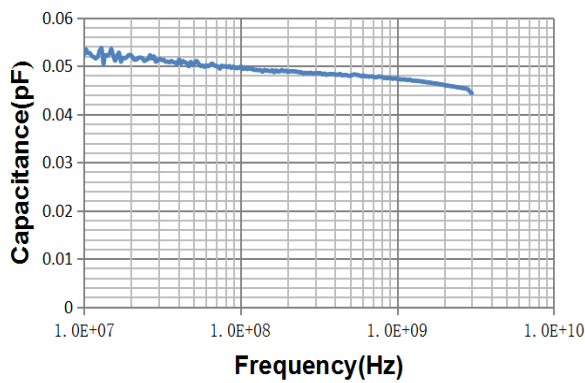
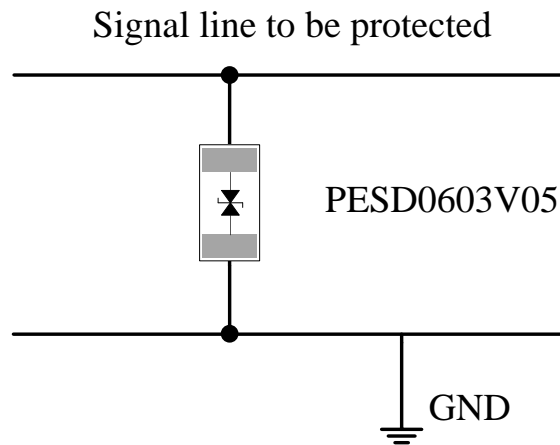


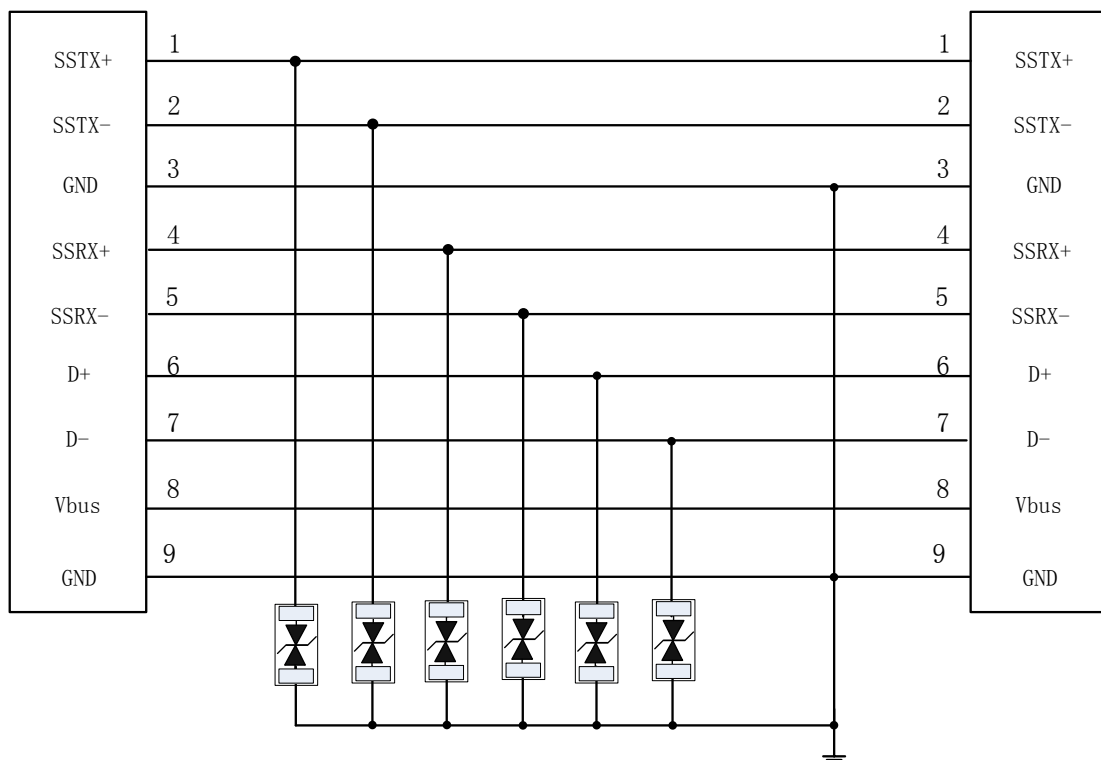
Fig.3 Capacitance VS Frequency



Application Information



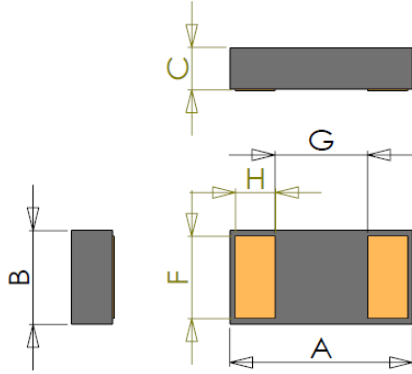
PESD0603V05 in Signal line protected



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	

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[P6KE13CA](#) [P6KE43CA](#) [P6KE6.8CA](#) [P6KE8.2](#) [P6SMBJ20CA](#) [JANTX1N6072A](#) [SR2835ESKG](#) [SA90CA](#)