

»Features

- The best ESD protection for high speed, low voltage applications
- RoHS compliant and halogen free
- Ultra low capacitance, 0.2 pF (typ.)
- Low leakage current (<200nA)
- Fast response time (<1ns)
- Bi-directional, single line protection
- Surface mount



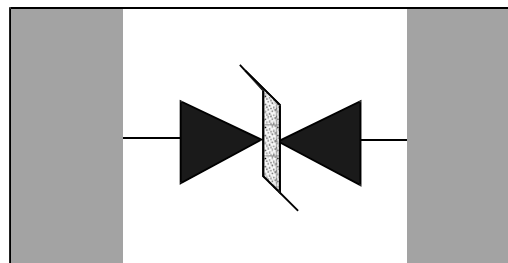
»Applications

- Smart Phone/Mobile Internet Device
- Laptop/Desktop Computer
- 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



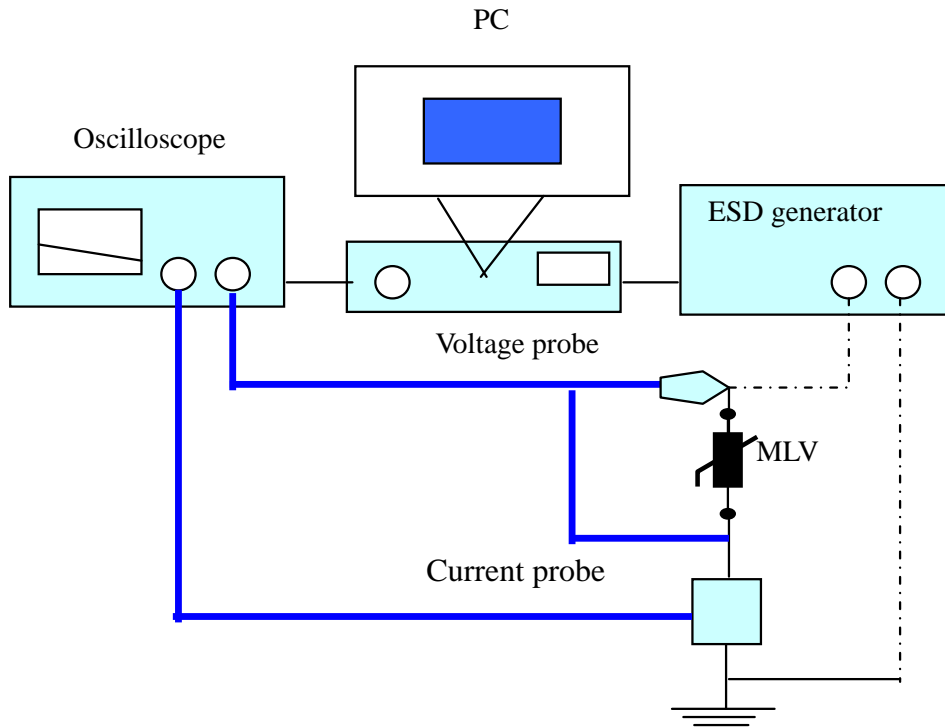
»Absolute Maximum Rating

Rating	Symbol	Conditions	Value	Units
ESD per IEC 61000-4-2 (Contact) ESD per IEC 61000-4-2 (Air)	V_{ESD}		± 8 ± 15	kV
Lead Soldering Temperature	T_L		260(10seconds)	$^{\circ}C$
Operating Temperature	T_O		-40 to + 125	$^{\circ}C$
Storage Temperature	T_{stg}		-55 to + 125	$^{\circ}C$

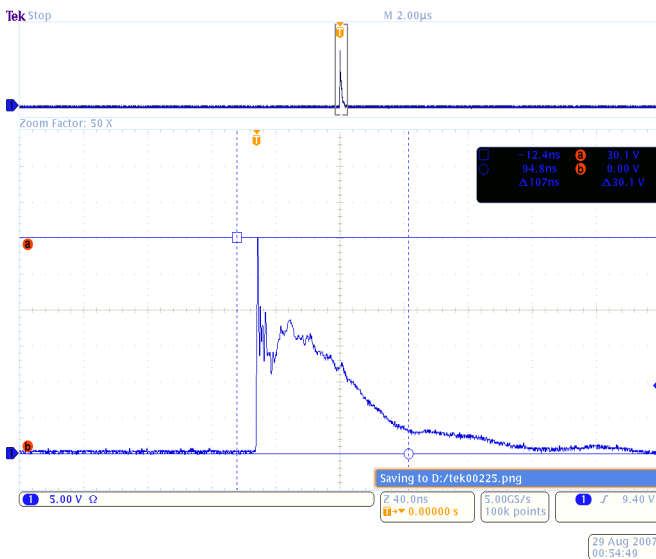
»Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Continuous Operating Voltage	V_{DC}				24	V
Trigger Voltage	V_T	IEC61000-4-2 8KV contact discharge		450		V
Leakage Current	I_L	$V_{DC}=24V, T=25^{\circ}C$			200	nA
Clamping Voltage	V_C	IEC61000-4-2 8KV contact discharge		40		V
Capacitance	C_P	Measured at 10MHz		0.2		pF
ESD Pulse Withstand	Pulses	IEC61000-4-2 8KV contact discharge	1000			

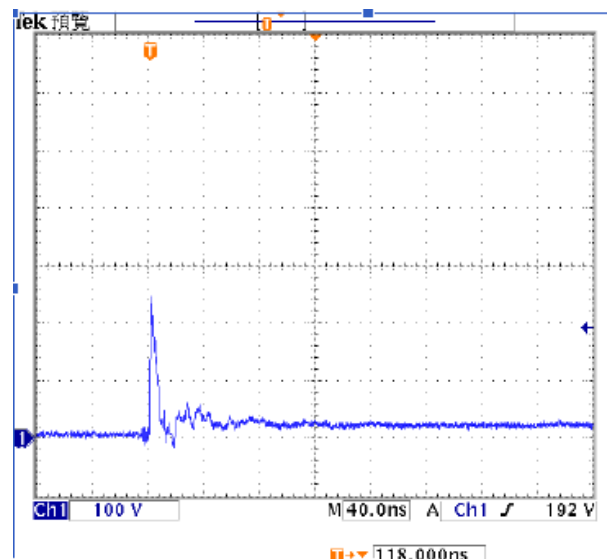
»ESD Clamping Test



ESD testing circuit

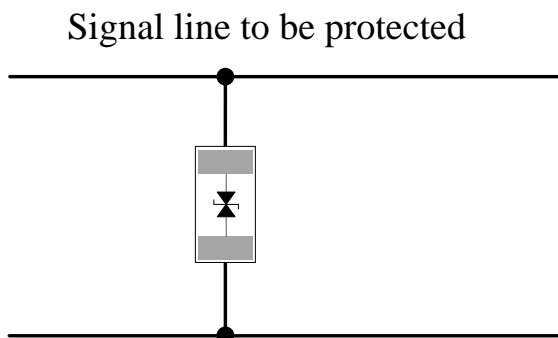


**Test with high voltage probe of attenuation factor $\times 250$
without ESD protection sample**

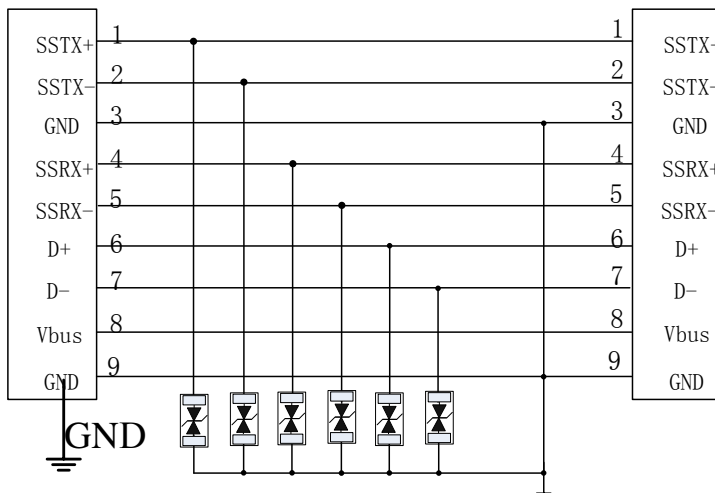


with 1010(0.2) sample

»Outline Drawing – 0603

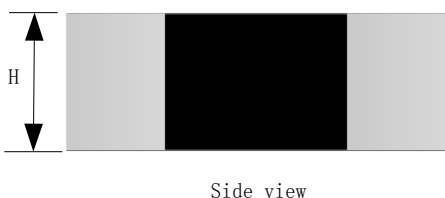
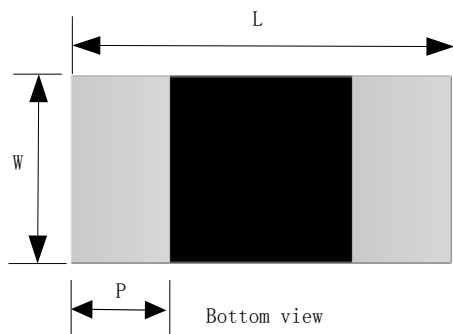


BNPGB1010603NR in Signal line protected



BNPGB1010603NR in USB3.0 application

»Outline Drawing – 0603



Dimension	Unit: Millimeters		
	Min.	Typ.	Max.
L	1.45	1.60	1.75
W	0.70	0.80	0.90
P	0.20	0.30	0.40
H			0.90

»Ordering information

Order code	Package	Base qty	Delivery mode
BNPGB1010603NR	0603	5k	Tape and reel

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