

FEATURES

- 0402 or 0603 Package
- Protect I/O lines etc.
- Low Clamping Voltage
- Low leakage current
- Solid-state silicon-avalanche technology
- Response Time is Typically <0.5 ns
- ROHS compliant in Lead-Free versions



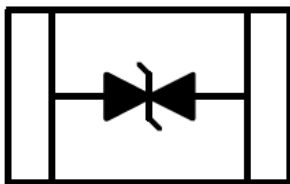
APPLICATIONS

- Notebooks and PC peripheral accessories
- Digital consumer electronics, MID, Bluetooth and Wi-Fi equipment
- Household Audio, Car Stereo
- Monitors and Flat Panel Displays
- Set Top BOX and OTT Box, DVBT
- Networking and Telecom equipment, such as cellphone, Net Switch, Router
- Medical Electronic such as Sphygmomanometer, Blood Glucose Meter
- Security equipment such as CCTV Camera, DVR, NCR, Optical Transceiver
- Industrial Equipment

IEC COMPATIBILITY (EN61000-4)

- IEC 61000-4-2 (ESD)
±15kV (air), ±8kV (contact)
- IEC 61000-4-4 (EFT) 30A (5/50ns)
- IEC 61000-4-5 (Lightning) 5A (8/20ns)

SCHEMATIC & PIN CONFIGURATION





BTR04A5/BTR06A5

Low Capacitance Single-Line ESD Suppressor

ELECTRICAL CHARACTERISTICS

(T_A=25°C Unless otherwise noted)

Part Number	Working Voltage (V _{DC})	Trigger Voltage(V _V) ΔV _V =±30%	Clamping Voltage (V _C)	Capacitance (C _P)	Capacitance Tolerance (ΔC _P)	Leakage Current (I _L)	Package
BTR04A5	5.5V	12V	9V	5pF	±30%	<1nA	0402
BTR06A5	5.5V	12V	9V	5pF	±30%	<1nA	0603

ELECTRICAL PARAMETERS (T=25°C)

Symbol	Parameter
V _{DC}	Maximum DC Operating Voltage
V _V	In the case of electrostatic discharge, V _V is the turn-on voltage of ESD suppressor instant grounding
V _C	Per IEC61000-4-2, level 4 waveform(8KV contact discharge mode,30A), measurement made 30ns after initiation of pulse
C _P	capacitance measurement at 1MHz test frequency
I _L	Leakage Current

ABSOLUTE MAXIMUM RATINGS

(T_A=25°C Unless otherwise noted)

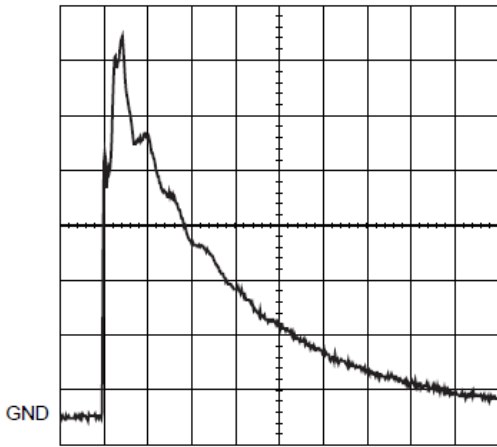
Parameter	Symbol	Typical	Unit
Operating Junction Temperature	T _J	-55 ~ 125	°C
Storage Temperature Range	T _{STG}	-55 ~ 150	°C

ENVIRONMENTAL SPECIFICATIONS

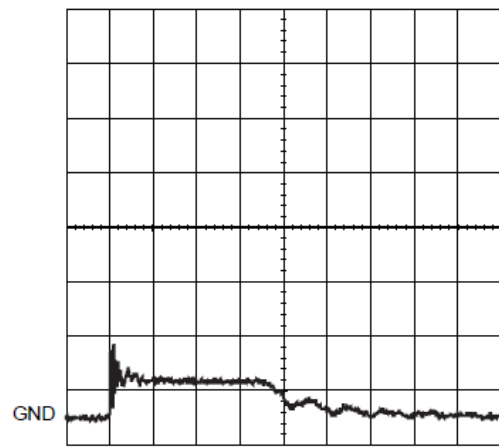
Characteristics	Specifications	Test Condition
Bias humidity	ΔV _V N _V ≤ ±10%	90%RH,40 °C, Working voltage,1000 hours
Thermal shock		-40 °C to 85 °C,30 min. ,5 cycles
Full load voltage		Working voltage,85 °C,1000hours
Solder leach resistance	1.ΔV _V N _V ≤ ±10% 2.I _r ≤50mA at working voltage 3.Solder Wetting area≥95%	260 °C,10s

TYPICAL CHARACTERISTICS

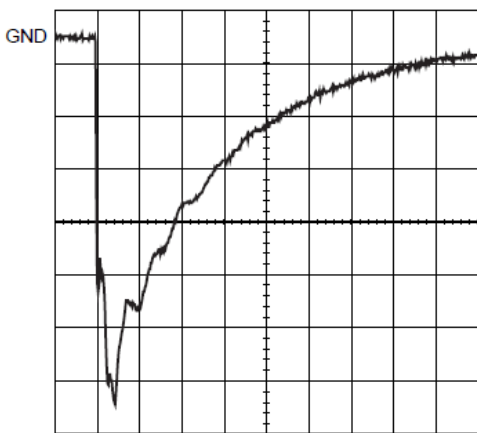
Without ESD Suppressor / +8KV ESD Voltage Waveform



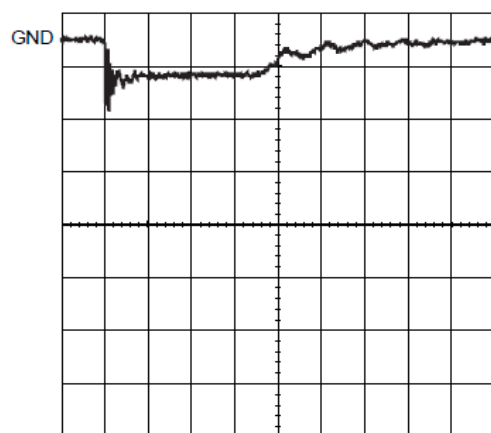
ESD Suppressor Clamped / +8KV ESD Voltage Waveform



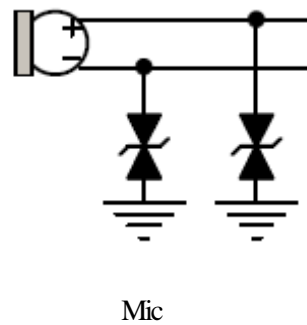
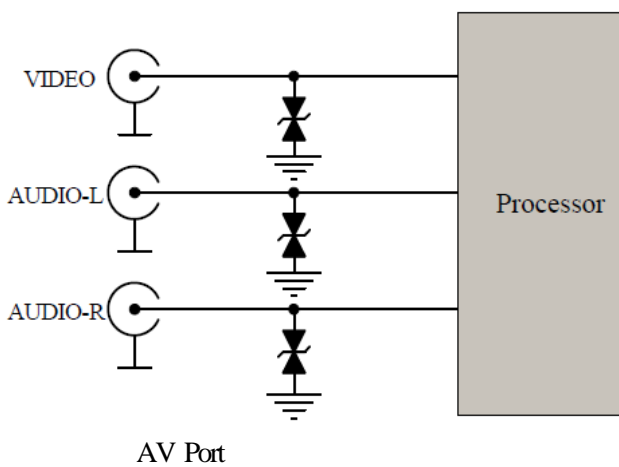
Without ESD Suppressor / -8KV ESD Voltage Waveform



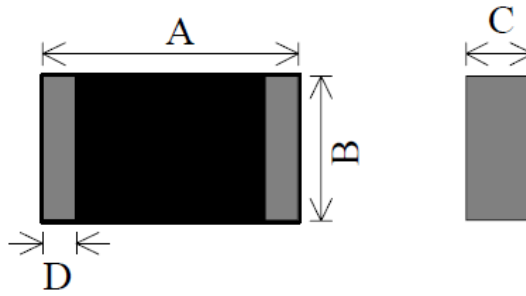
ESD Suppressor Clamped / -8KV ESD Voltage Waveform



TYPICAL APPLICATIONS



PACKAGE OUTLINE



Dim	Millimeters	Inches	Millimeters	Inches
	0402 Package		0603 Package	
A	1.00±0.15	0.04±0.006	1.60±0.20	0.04±0.008
B	0.50±0.10	0.02±0.004	0.80±0.15	0.02±0.006
C	0.50±0.10	0.02±0.004	0.80±0.15	0.02±0.006
D	0.25±0.15	0.009±0.006	0.30±0.20	0.009±0.008

ORDERING INFORMATION

Chip Size	Parts on 7 inch (178 mm) Reel	Marking
0402	10,000pcs	
0603	4,000pcs	