

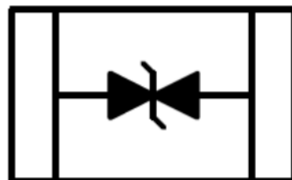
Features

- 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
- 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)

Applications

- Notebooks and PC peripheral accessories
- Household Audio, Car Stereo
- Monitors and Flat Panel Displays
- Set Top BOX and OTT Box, DVBT
- Industrial Equipment

Dimensions and Pin Configuration



Absolute Maximum Ratings (T_{amb}=25°C unless otherwise specified)

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

Electrical Characteristics (T_A=25°C unless otherwise specified)

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-TP	5.5V	12V	9V	5pF	±30%	<1nA	0402
BTR06A5-TP	5.5V	12V	9V	5pF	±30%	<1nA	0603

ELECTRICAL PARAMETERS (T=25°C)

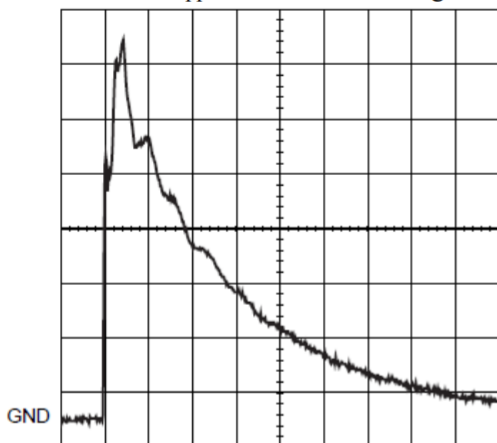
Symbol	Parameter
V _{DC}	Maximum DC Operating Voltage
V _V	In the case of electrostatic discharge, V _V is the turn-on voltage of ESD suppressor instant grounding
V _C	Per IEC61000-4-2, level 4 waveform (8KV contact discharge mode, 30A), measurement made 30ns after initiation of pulse
C _P	capacitance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

ENVIRONMENTAL SPECIFICATIONS

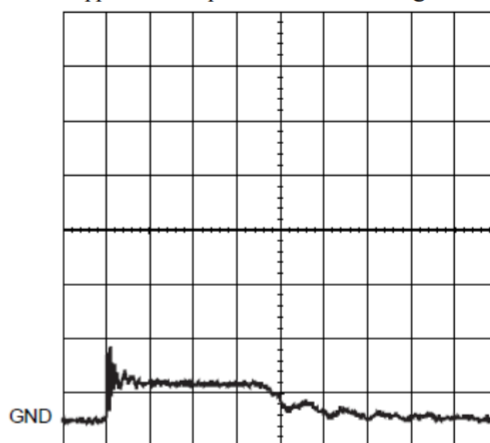
Characteristics	Specifications	Test Condition
Bias humidity	ΔV _V /V _V ≤ ±10%	90%RH, 40 °C, Working voltage, 1000 hours
Thermal shock		-40 °C to 85 °C, 30 min., 5 cycles
Full load voltage		Working voltage, 85 °C, 1000 hours
Solder leach resistance	1. ΔV _V /V _V ≤ ±10% 2. I _r ≤ 50mA at working voltage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

Characteristic Curves

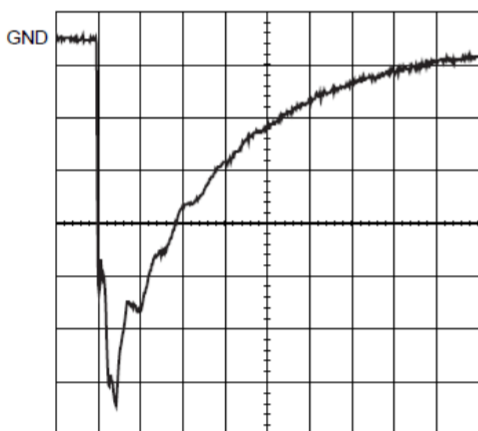
Without ESD Suppressor /+8KV ESD Voltage Waveform



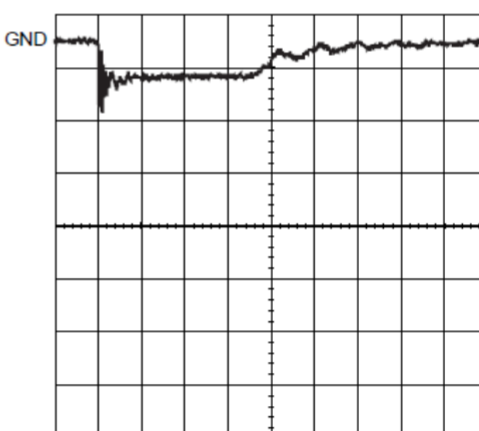
ESD Suppressor Clamped /+8KV ESD Voltage Waveform



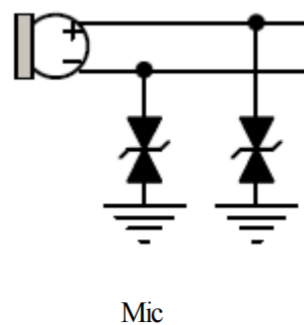
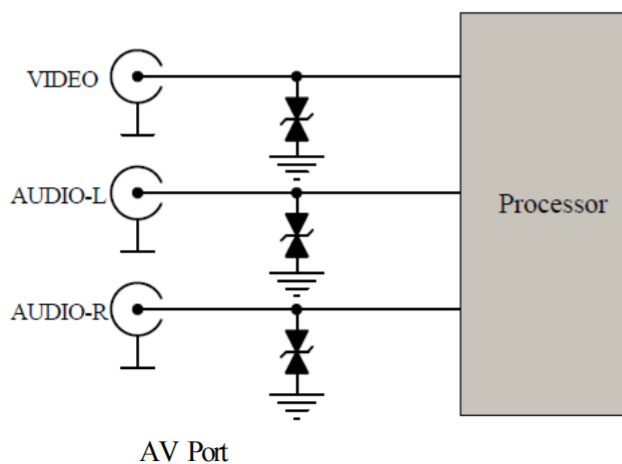
Without ESD Suppressor /-8KV ESD Voltage Waveform



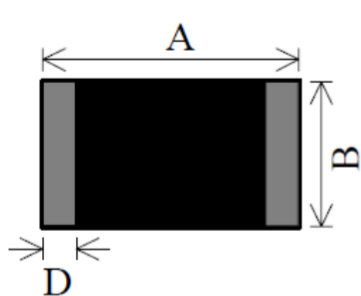
ESD Suppressor Clamped /-8KV ESD Voltage Waveform



TYPICAL APPLACIOTNS



Package Outline Dimensions (unit: mm)



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