Four element array.
configurations: 0603 discrete, 0405 two element array, high speed and slow speed CAN circuitry. Available
Bidirectional transient voltage suppressor intended for (CAN BUS Series)
Low, Medium & High Speed CAN Networks of 3 pF and 12 pF available.
Available in 0402 and 0603 case sizes. Capacitance values intended for high speed or high frequency applications.
Low capacitance, bidirectional transient voltage suppressor
Low Capacitance Bidirectional Transient Voltage Suppressors & EMI Filters (MicroGuard)
Bidirectional transient voltage suppressor filter LC T configuration. Relatively narrow band, high attenuation
Miniature surface mount, bidirectional transient voltage suppressor filter LC T configuration. 5 Amps.
Feedthru currents up to 5 Amps. Case sizes: 0402, 0603, 0805, 1206. Current ratings 250 mA to
High accuracy, surface mount, high speed 5 A feedthru filter. Case sizes 0402, 0603, 0805, 1205, 1210. Current ratings 250 mA to 5 A.
Bidirectional Transient Voltage Suppressors for USB Applications (USB Series)
Bidirectional transient voltage suppressor intended for USB applications.
Available configurations: 0402 and 0603 discrete; 0405 two element array; 0612 four element array.
Bidirectional Transient Voltage Suppressors for Load Dump & Arm Start Applications (Medium Power Automotive Series)
Bidirectional transient voltage suppressor intended for load dump and arm start applications. Current ratings 0.1 to 15 Amps. Case sizes: 0402, 0603, 0805, 1206. Energy ratings 0.5 to 12 joules.
Bidirectional Transient Voltage Suppressors for Telecom Applications (Medium Power Feedthru)
Bidirectional Transient Voltage Suppressors for Medium Power Automotive (Medium Power Automotive Series)
Bidirectional transient voltage suppressor. Steady state operating voltages of 3.3 volts to 18 volts. Case sizes: 0405, 0508, 0603, 0805, 1206.
Available configurations: 0402, 0603 and 0805 discrete; 0405 two element array; 0612 four element array.
Bidirectional Transient Voltage Suppressors for Low Leakage CMOS Applications in 0603 Package (UltraGuard)
Low leakage, bidirectional transient voltage suppressor intended for CMOS battery powered designs. Steady state operating voltages of 1.8, 2.7, 3.3, 5.0, 12.0, 1.5 to 15 Volts. Case size: 0603.
Bidirectional Transient Voltage Suppressors for Low Leakage CAN Applications in 0603 Package
Low leakage, bidirectional transient voltage suppressor intended for low leakage CAN based controller area networks. Current ratings 0.1 to 5 Amps. Case sizes: 0402, 0603, 0805, 1206. Energy ratings 0.25, 0.5 to 12 joules.
Bidirectional Transient Voltage Suppressors for EMI Filters (TransFeed)
Bidirectional Transient Voltage Suppressors for Low Speed High Speed CAN Networks (GaN BiFET Series)
## Applications Guide
### Circuit Protection & Signal Integrity

#### APPLICATIONS
- ESD
  - Inrush Current Limit
  - Long Wave Transient
- USB Filtering
  - ESD Protection - Latch
- Hard Drive
- Telecom
- UL 60601-1
- IEC 61000-4-5
- Telecom Protection
- Over Current Protection
- Diode Replacement
- Zener Replacement
- Military A-A-55682
- Radiation Resistance
- Automotive
  - ISO 7637
  - MIL-STD-461E
  - MIL-STD-706C
  - Military Negative Temperature Coefficient Thermistors
  - Military Positive Temperature Coefficient Thermistors
  - Military Positive Temperature Coefficient Thermistors
  - Negative Temperature Coefficient Thermistors
  - Positive Temperature Coefficient Thermistors
- Medical (EN 60601)
- High Speed Data Line Protection
- Temperature Sensing
- Low Leakage Circuit

#### DATA
- Data Sheet
- Technical Notes
- Reliability Data
- Distributed Element Model
- Temperature Dependence

---

## Product Capability Chart
### Circuit Protection & Signal Integrity

#### Fast Blow SMT Fuse (Surface Mount Fuse)
- AVX PRODUCTS
  - SMT Broadband LCT Filter (Feedthru)
  - SMT Broadband LCT Filter Array (Feedthru Array)
  - SMT High Current Broadband LCT Filter (High Current Feedthru)

#### Bidirectional Transient Voltage Suppressors & EMI Filters (TransGuard)
- Bidirectional Transient Voltage Suppressors for USB Applications (USB Series)
- Bidirectional Transient Voltage Suppressors for Low Leakage CMOS Applications (UltraGuard)
- Bidirectional Transient Voltage Suppressors for High Energy Transients (Medium Power MLV)
- Bidirectional Transient Voltage Suppressors for Load Dump & Jump Start Auto Applications
- Bidirectional Transient Voltage Suppressors for Telecom Applications (Medium Power MLV for Telecom)

#### Leaded Negative Temperature Coefficient Thermistors
- General Purpose Radial Leaded Power MOV (Metal Oxide Varistors)

#### Low Capacitance SMT Bidirectional Transient Voltage Suppressors & EMI Filters (StatusGuard)
- SMT Bidirectional LCT Transient Voltage Suppressor Filters (TransFeed)

#### Low Capacitance Bidirectional Transient Voltage Suppressors (AntennaGuard)
- Bidirectional Transient Voltage Suppressors for Low, Medium & High Speed CAN Networks (CAN BUS)

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# Applications Guide

## Circuit Protection & Signal Integrity

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## Product Capability Chart

### Circuit Protection & Signal Integrity

- **Fast Blow SMT Fuse (Surface Mount Fuse)**
- **SMT Broadband LCT Filter (Feedthru)**
- **SMT Broadband LCT Filter Array (Feedthru Array)**
- **SMT High Current Broadband LCT Filter (High Current Feedthru)**
- **SMT Bidirectional Transient Voltage Suppressors & EMI Filters (TransGuard)**
- **SMT Bidirectional Transient Voltage Suppressors & EMI Filters Arrays (MultiGuard)**
- **Low Capacitance SMT Bidirectional Transient Voltage Suppressors & EMI Filters (StaticGuard)**
- **SMT Bidirectional LCT Transient Voltage Suppressor Filters (TransFeed)**
- **Low Capacitance Bidirectional Transient Voltage Suppressors (AntennaGuard)**
- **Bidirectional Transient Voltage Suppressors for Low, Medium & High Speed CAN Networks (CAN BUS)**

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## Applications Guide

### Circuit Protection & Signal Integrity

#### Applications

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**Circuit Protection & Signal Integrity**

**Bi-directional Transient Voltage Suppressors**

- **For USB Applications (USB Series)**

- **For High Speed and Slow Speed CAN Circuitry**
  - Available configurations: 0402, 0508, 0603, 0805, 1206, 1210, 1812.

**Low Impedance Bidirectional Transient Voltage Suppressors (Anti-EMI)**

- **For Low Leakage CMOS Applications**
  - Low leakage, bidirectional transient voltage suppressor intended for CMOS battery powered designs. Minimal loading of the circuit is 0.1 pF.

**Low Capacitance Bidirectional Transient Voltage Suppressors**

- **Discrete Filter**
  - 0603 package, 4 element array filter in T configuration. Relatively narrow band, high attenuation.

- **SMT Filters**
  - 0612, 0805, 1206.

**Suppressors & EMI Filters (StaticGuard)**

- **Low Capacitance SMT Bidirectional Transient Voltage Suppressors**
  - 0612.

**Voltages**

- Steady state operating voltages of 5.6 volts to 18 volts. Case sizes: 0405, 0508, 0603, 0805, 1206, 1210, 1212, 1812, 2220.

**Contact:**

[www.avx.com](http://www.avx.com)
**AVX Signal Integrity**

**Introduction**

AVX offers a wide range of signal integrity solutions designed to protect high-speed digital and analog signals. From discrete components to integrated circuit (IC) protection, AVX's products are engineered to maintain signal integrity in a variety of applications.

**Product Line Overview**

1. **Bidirectional Transient Voltage Suppressors (SMT & EMI Filters)**: These devices are designed to prevent voltage spikes caused by power surges or other transient events. They are available in a variety of packages and configurations, offering protection for high-speed digital and analog signals.

2. **Low-Capacitance Bidirectional Transient Voltage Suppressors (EcoGuard)**: Optimized for low leakage currents, these suppressors are ideal for CMOS battery-powered designs, ensuring minimal power consumption while providing robust protection.

3. **Steady State Operating Voltages**
   - **Low Leakage CMOS Applications (UltraGuard)**: Available in a range of packages, including 0402, 0508, and 0612, these suppressors are specifically designed for CMOS battery-powered devices, offering low leakage CMOS protection.
   - **High Power Automotive Applications (Medium Power Automotive) and High Energy Transients (Medium Power MLV)**: These suppressors are engineered for high power automotive applications and high energy transients, respectively, ensuring durable protection in challenging environments.

4. **Telecom Applications**
   - **Telecom Transient Suppressor Filters (Telecom)**: These filters are designed to protect telecom networks against damaging voltage transients, ensuring reliable signal transmission.

5. **USB Applications**
   - **USB Series** Transient Voltage Suppressors: Specialized for USB applications, these suppressors are designed to provide protection against transient voltage surges in Universal Serial Bus (USB) environments.

**Contact Information**

For more information or to inquire about specific products and solutions, please contact AVX or visit their website at http://www.avx.com.

**AVX Locations**

- **North America**
  - AVX Myrtle Beach, SC
  - AVX Northwest, WA
  - AVX South Central, TX

- **Europe**
  - AVX Limited, England
  - AVX/VX Electronics, Germany

- **Asia-Pacific**
  - AVX/Kyocera, Singapore
  - AVX/Kyocera, Korea

- **China**
  - AVX/Kyocera, Shanghai, China
  - AVX/Kyocera, Tianjin, China

**Contact: AVX Corporation**

Contact details are available on the AVX website or through their offices listed above.

---

**Technical Specifications**

- **Bidirectional Transient Voltage Suppressors**
  - High accuracy, low leakage transient voltage suppressors. Suitable for various electronic devices, offering protection against high-speed digital and analog signals.

- **Low-Capacitance Bidirectional Transient Voltage Suppressors**
  - Designed for low leakage CMOS applications, ensuring minimal power consumption and optimal performance in CMOS battery-powered designs.

- **SMT Transient Voltage Suppressors**
  - Available in a range of packages, including 0402, 0603, 0805, 1206, and 0612, providing durable protection across various applications.

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**AVX Signals**

- **Signal Integrity**
  - Ensuring optimal signal performance and robust protection against voltage surges and transients.

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**AVX Technologies**

- **Signal Integrity Solutions**
  - A comprehensive portfolio of signal protection and conditioning products, designed to meet the needs of today’s high-speed digital and analog systems.