COOPER Bussmann

Protect High Speed Data Circuits from ESD Damage without Distorting Data

Introducing the PolySurg™ 42510ESDA-TR1 4-Channel ESD Suppressor in a 2510 Size SMD Device

- **Maintains Signal Integrity**

  The ultra-low capacitance (0.1pF typical) leaves high speed data circuits untouched so ICs can function as designed.

- **Protects ICs from ESD Damage**

  Low trigger voltage and clamping voltage delivers enhanced ESD protection for very sensitive ICs.

- **Fast Response**

  The polymer based Voltage Variable Material (VVM) reacts in less than 1ns to suppress damaging ESD strikes away from the IC allowing for continued operation.

- **Environmentally Friendly**

  Cooper Bussmann offers ESD suppressors that are RoHS compliant and halogen free, making them a great choice for any global application.

42510ESDA-TR1 Specifications

Catalog Symbols: 42510ESDA-TR1

Packaging: 5000 per Reel

Technology: Polymer Voltage Variable Material ESD Suppressor

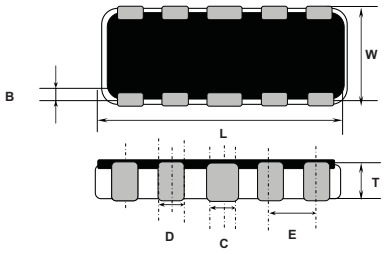
Electrical Characteristics:

- Working Voltage: 12Vdc
- Clamp Voltage: 30V Typical
- Trigger Voltage 300V Typical
- Capacitance @ 1MHz: 0.1pF Typical
- Response Time: <1ns
- ESD Pulse Withstand: >100 Pulses Minimal

ESD Capability:

- IEC61000-4-2 Direct Discharge: 8kV
- IEC61000-4-2 Air Discharge: 15kV

Product Dimensions - mm



B	C	D	E	L	T	W
0.2 ±0.1	0.3 ±0.05	0.2 ±0.05	0.5 ±0.05	2.5 ±0.1	0.5 ±0.1	1.0 ±0.1

Apply the 42510ESDA-TR1 ESD Array to the High Speed Signal Interface of the following:

- USB 2.0
- IEEE 1394
- HDMI
- DVI

Typical Applications:

- Digital video equipment
- Mobile phone
- GPS Antenna
- Bluetooth communication equipment antenna circuit
- IEEE 1394
- DVI HDMI

Design Considerations:

- Follow the recommend soldering conditions to avoid deforming product deforming
- Do not use in high temperature, high humidity and corrosive atmospheres like sulfide or chloride gas which could damage the solderability
- MSL(Moisture Sensitivity Levels) level according to J-STD-020 standard: Level 2 (Floor Life 1 year under condition <30°C/65%RH)
- Solderability requirement according to IPC/JEDEC J-STD-002C, Test D, test B1, use Sn/Ag/Cu (96.5/3.0/0.5) or equivalent solder and use activated flux #5 or equivalent flux.

Order samples online - www.cooperbussmann.com

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