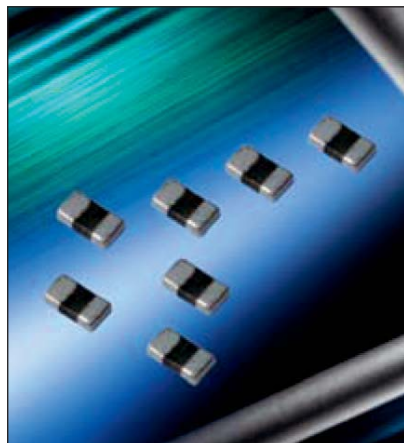


Miniature 0201 MLV

AVX Multilayer Ceramic Transient Voltage Suppressors

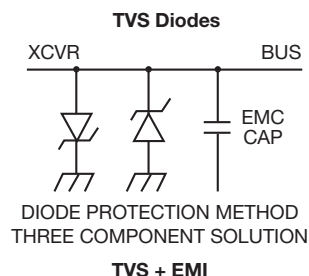
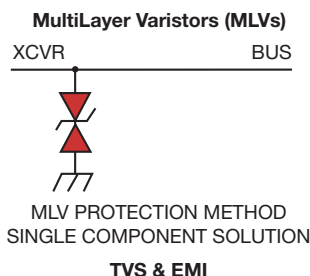
ESD Protection for any Circuit with Board Space Constraints



GENERAL DESCRIPTION

AVX 0201 Multi-Layer Varistors are designed for circuits where board space is a premium. 0201 MLV offer bi-directional ESD protection in the smallest package available today. The added advantage is EMI/RFI attenuation. 0201 MLV can replace 2 diodes and the EMC capacitor for a one chip solution.

The miniature size and one chip solution team to offer designers the best in ESD protection and EMI filtering in one ultra compact device.



GENERAL CHARACTERISTICS

Operating Temperature: -55°C to +125°C

- Working Voltage: 3.5Vdc - 16Vdc
- Case Size: 0201

APPLICATIONS

- Cell phone
- PDA
- Camera modules
- Embedded components
- Hearing aid
- Any circuit with space constraints

FEATURES

- Capacitance 15pF to 150pF
- Low V_B Version
- Bi-Directional protection
- Fastest response time to ESD strikes
- Multi-strike capability
- Ultra compact 0201 case size

HOW TO ORDER

VC
Varistor
Chip

0201
Chip Size
0201

03
Working
Voltage
03 = 3.5V

V
Energy
Rating
V = 0.02J

151
Capacitance
151 = 150pF

W
Packaging
W = 7"
10kpcs

P
Termination
P = Ni Barrier/
100% Sn (matte)



AVX Part Number	V _W (DC)	V _W (AC)	V _B	V _C	I _{VC}	I _L	E _T	I _P	Cap
VC020103V101WP	3.5	2.0	4.76 min 8.84 max	14max	1	50	0.02	10	100pF ±30%
VC020103V121WP	3.5	2.0	4.76 min 8.84 max	14max	1	50	0.02	10	125pF ±30%
VC020103V151WP	3.5	2.0	4.76 min 8.84 max	14max	1	50	0.02	10	150pF ±30%
VC020105T150WP	5.6	4.0	10.0 min 15.6 max	35max	1	50	0.01	2	15pF ±30%
VC020105T330WP	5.6	4.0	10.0 min 15.6 max	35max	1	50	0.01	4	33pF ±30%
VC020105T500WP	5.6	4.0	10.0 min 15.6 max	35max	1	50	0.01	5	50pF ±30%
VC020105T101WP	5.6	4.0	10.0 min 15.6 max	35max	1	50	0.01	5	100pF ±30%
VC020105V101WP	5.6	4.0	6.4 min 9.6 max	17max	1	50	0.02	4	100pF ±30%
VC020107V101WP	7.0	5.6	9.6 min 14.4 max	20max	1	50	0.02	5	100pF ±30%
VC020116T150WP	16	11	21.7 min 29.3 max	45max	1	50	0.01	1	15pF ±30%

V_W(DC) DC Working Voltage [V]

V_W(AC) AC Working Voltage [V]

V_B Breakdown Voltage [V @ 1mA DC]

V_C Clamping Voltage [V @ I_{VC}]

I_{VC} Test Current for VC [A, 8x20μS]

I_L Maximum leakage current at the working voltage [μA]

E_T Transient Energy Rating [J, 10x1000μS]

I_P Peak Current Rating [A, 8x20μS]

Cap Capacitance [pF] @ 1KHz specified and 0.5VRMS

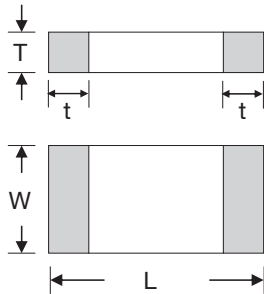


Miniature 0201 MLV



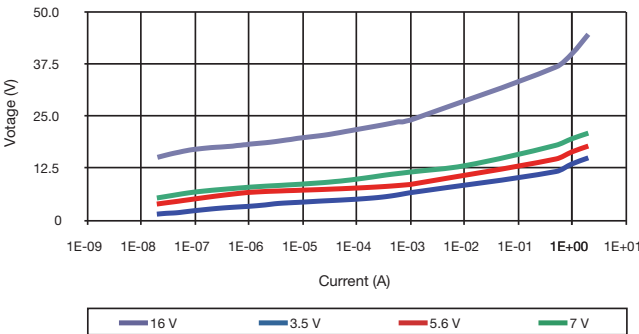
AVX Multilayer Ceramic Transient Voltage Suppressors
ESD Protection for any Circuit with Board Space Constraints

PHYSICAL DIMENSIONS: mm (inches)

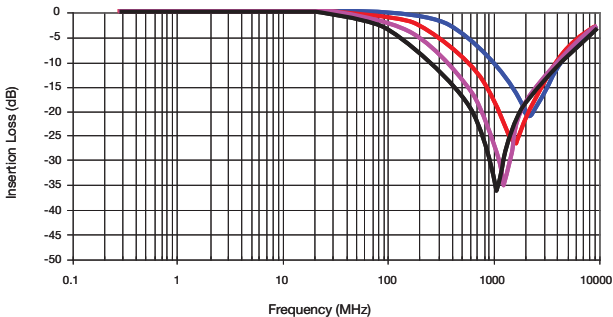


Size (EIA)	Length (L)	Width (W)	Max Thickness (T)	Terminal (t)
0201	0.60±0.03 (0.024±.001)	0.30±0.03 (0.011±0.001)	0.33 max. (0.013 max.)	0.15±0.05 (0.006±0.002)

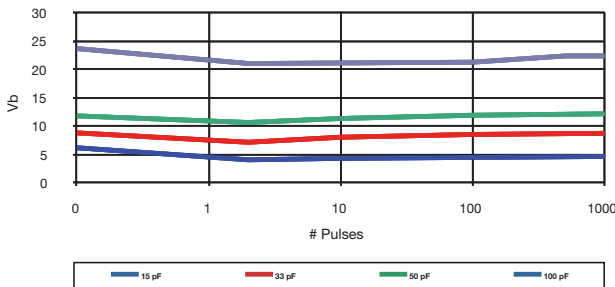
VOLTAGE/CURRENT CHARACTERISTICS



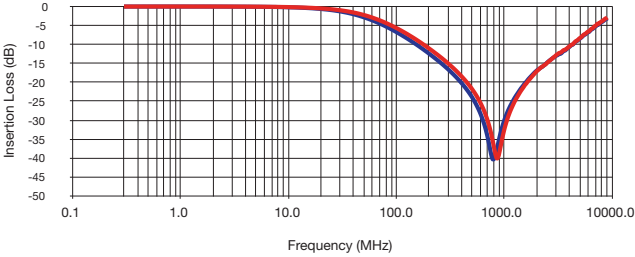
TRANSMISSION CHARACTERISTICS 5.6Vdc



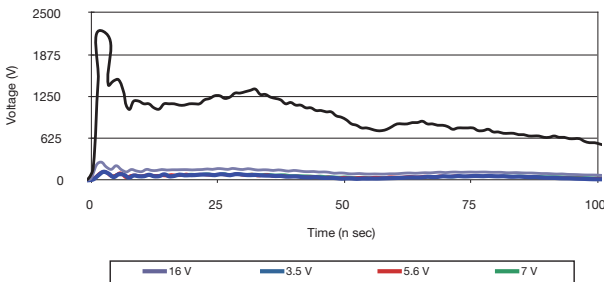
TYPICAL 8 KV ESD PERFORMANCE (150pF / 300ohm IEC Network)



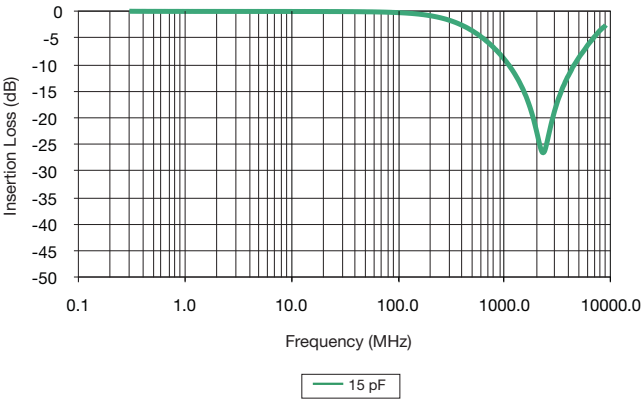
3.5Vdc



8kV CONTACT ESD vs PULSE 1 Mohm Input (150pF / 330ohm Network)



16Vdc



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[AVX:](#)

[VC020105T150WP](#) [VC020105T330WP](#) [VC020105T101WP](#) [VC020105T500WP](#) [VC020103V101WP](#)
[VC020103V121WP](#) [VC020103V151WP](#) [VC020116T150WP](#) [VC020105V101WP](#) [VC020107V101WP](#)