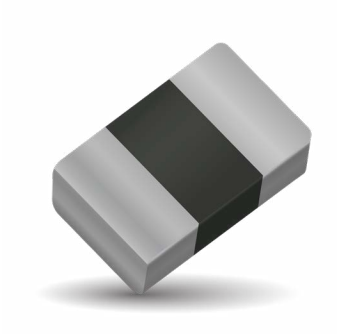
Miniature 0201 MLV

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

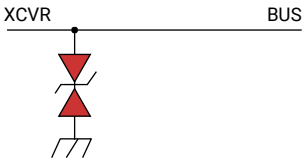


GENERAL DESCRIPTION

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.

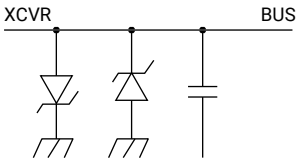
MultiLayer Varistors (MLVs)



MLV PROTECTION METHOD
SINGLE COMPONENT SOLUTION

TVS & EMI

TVS Diodes



DIODE PROTECTION METHOD
THREE COMPONENT SOLUTION

TVS & EMI

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 VB Version
- Bi-Directional protection
- Fastest response time to ESD strikes
- Multi-strike capability
- Ultra compact 0201 case size

HOW TO ORDER

VC	AS	0201	09	V	300	W	P
Varistor Clamp	Automotive Series	Chip Size 0201	Working Voltage 09 = 9V	Energy Rating V = 0.02J	Capacitance 300 = 32V	Package W = 7" 10kpcs	Termination P = Ni Barrier/ 100% Sn (matte)

RoHS COMPLIANT

MSL 1
Pb Free 260°C

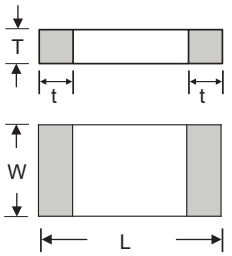
Part Number	V_W (DC)	V_W (AC)	V_B	V_C	I_{VC}	I_L	E_T	I_P	Cap
VC020103V101WP	3.5	2.0	4.76 min 8.84 max	14max	1	50	0.02	10	100pF ±30%
VC020103V121WP	3.5	2.0	4.76 min 8.84 max	14max	1	50	0.02	10	125pF ±30%
VC020103V151WP	3.5	2.0	4.76 min 8.84 max	14max	1	50	0.02	10	150pF ±30%
VC020105T150WP	5.6	4.0	10.0 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 Votage [V @ 1mADC]
V_C Clamping Votage [V @ IVC]
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

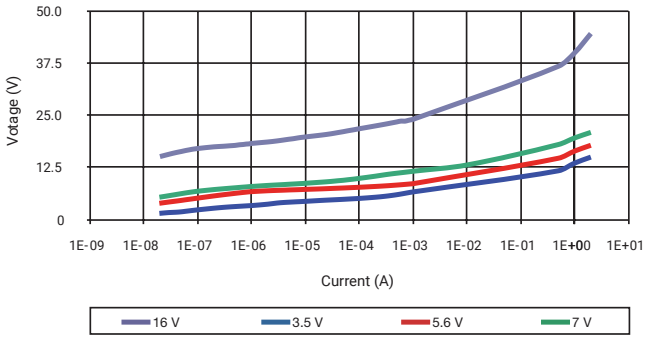
Multilayer Ceramic Transient Voltage Suppressors
ESD Protection for any Circuit with Board Space Constraints

PHYSICAL DIMENSIONSL: mm (inches)

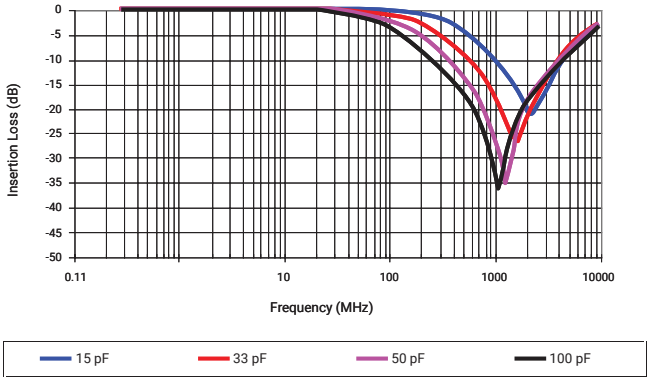


Size (EIA)	Length (L)	Width (W)	Max Thickness (T)	Terminal
0201	0.60±0.03 (0.024±0.001)	0.30±0.03 (0.011±0.001)	0.33 max. (0.013 max.)	0.15±0.05 (0.006±0.002)

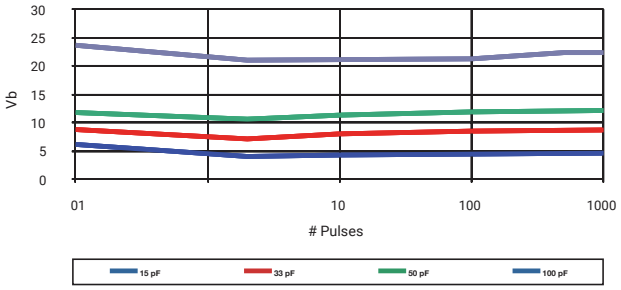
VOLTAGE/CURRENT CHARACTERISTICS



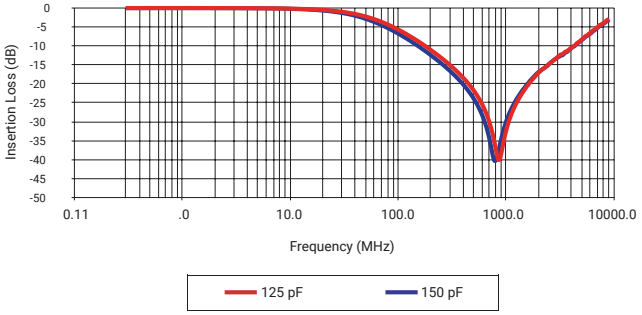
TRANSMISSION CHARACTEROSTICS 5.6VDC



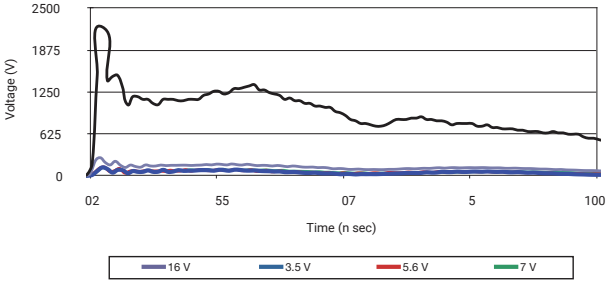
TYPICAL 8 KV ESD PERFORMANCE (150pF / 300Ohm IEC Network)



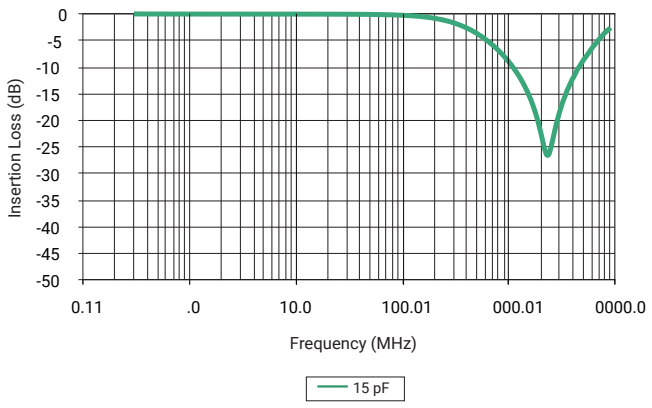
3.5VDC



8 kV CONTACTED ESD PULSE 1 Mohm Input (150pF / 300ohm IEC Network)



16Vdc



Mouser Electronics

Authorized Distributor

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

KYOCERA AVX:

VC020105T150WP VC020105T330WP VC020105T101WP VC020105T500WP VC020103V101WP VC020103V121WP VC020103V151WP VC020116T150WP VC020105V101WP VC020107V101WP