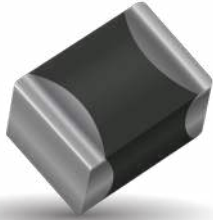


# Low Capacitance +150°C Automotive Series Varistors

## 150°C Rated Varistors with Low Signal Distortion / Low Capacitance



### GENERAL DESCRIPTION

AVX Low Capacitance High Temperature Multi-Layer Varistors are designed for High Temperature applications up to 150°C. The MLV advantage is EMI/RFI attenuation in the off state. This allows designers the ability to combine the circuit protection and EMI/RFI attenuation function into a single highly reliable device. Low Capacitance Varistors have low signal distortion, low loss and low capacitance.

### FEATURES

- Operating Temperature: -55°C to +150°C
- AEC Q200 qualified
- ESD rating to 25kV contact
- EMI/RFI attenuation in off state
- Excellent current and energy handling

### APPLICATIONS

- Under hood
- Down Hole Drilling
- High temperature applications
- Communication Bus
- Sensors
- RF Circuits
- Capacitance sensitive applications and more

### HOW TO ORDER CAN SERIES

<b>CAN</b>	<b>AT</b>	<b>01</b>	<b>R</b>	<b>P</b>
Type	Series	Case Size	Packaging	Termination
Controlled Area Network Varistor	Automotive High Temperature	01 = 0603 02 = 0405 2-Element 04 = 0612 4-Element	D = 7" (1000 pcs) R = 7" (4,000 pcs) T = 13" (10,000 pcs)	P = Ni Barrier/ 100% Sn (matte)



AVX Part Number	V <sub>w</sub> (DC)	V <sub>w</sub> (AC)	V <sub>B</sub>	I <sub>L</sub>	E <sub>T</sub>	I <sub>p</sub>	Cap	Case Size	Elements
CANAT01--	≤ 18	≤ 14	120	10	0.015	4	22	0603	1
CANAT02--	≤ 18	≤ 14	70	10	0.015	4	22	0405	2
CANAT04--	≤ 18	≤ 14	100	10	0.015	4	22	0612	4

### CANATL SERIES

<b>CAN</b>	<b>ATL</b>	<b>07</b>	<b>R</b>	<b>P</b>
Type	Series	Case Size	Packaging	Termination
Controlled Area Network Varistor	Automotive High Temperature Low Leakage	07 = 0603	D = 7" (1000 pcs) R = 7" (4,000 pcs) T = 13" (10,000 pcs)	P = Ni Barrier/100% Sn



PN	V <sub>w</sub> (DC)	V <sub>w</sub> (AC)	V <sub>B</sub>	V <sub>C</sub>	I <sub>VC</sub>	I <sub>L1</sub>	I <sub>L2</sub>	E <sub>T</sub>	I <sub>p</sub>	Typ Cap	Cap Tol	V <sub>Jump</sub>	P <sub>Diss</sub>	Case Size
CANATL07	32	25	61±15%	120	1	1	<1	0.05	5	10	±50%	27.5	0.003	0603

V <sub>w</sub> (DC)	DC Working Voltage [V]	I <sub>L2</sub>	Typical leakage current at 28Vdc, 25°C [μA]
V <sub>w</sub> (AC)	AC Working Voltage [V]	E <sub>T</sub>	Transient Energy Rating [J, 10x1000μs]
V <sub>B</sub>	Breakdown Voltage [V @ 1mA <sub>DC</sub> , 25°C]	I <sub>p</sub>	Peak Current Rating [A, 8x20μs]
V <sub>C</sub>	Clamping Voltage [V @ I <sub>VC</sub> ]	Cap	Capacitance [pF] @ 1MHz and 0.5V <sub>RMS</sub>
I <sub>VC</sub>	Test Current for VC [A, 8x20μs]	V <sub>Jump</sub>	Jump Start [V, 5 min]
I <sub>L1</sub>	Maximum leakage current at the working voltage, 25°C [μA]	P <sub>Diss</sub>	Max Power Dissipation [W]

### ANTENNAGUARD SERIES

<b>VCAT</b>	<b>06</b>	<b>AG</b>	<b>18</b>	<b>120</b>	<b>Y</b>	<b>A</b>	<b>T</b>	<b>1</b>	<b>A</b>
Type	Case Size	Varistor Series	Working Voltage	Cap	Non-Std. Cap Tolerance	N/A	Termination Finish	Reel Size	Reel Quantity
High Temperature Varistor	04 = 0402 06 = 0603	AntennaGuard	18 = 18Vdc				P = Ni Barrier/ 100% Sn	1 = 7" 3 = 13"	A = 4000 or 10,000

AVX Part Number	V <sub>w</sub> (DC)	V <sub>w</sub> (AC)	I <sub>L</sub>	Cap	Cap Tolerance	Case Size
VCAT06AG18120YAT--	≤ 18	≤ 14	10	12	+4, -2pF	0603

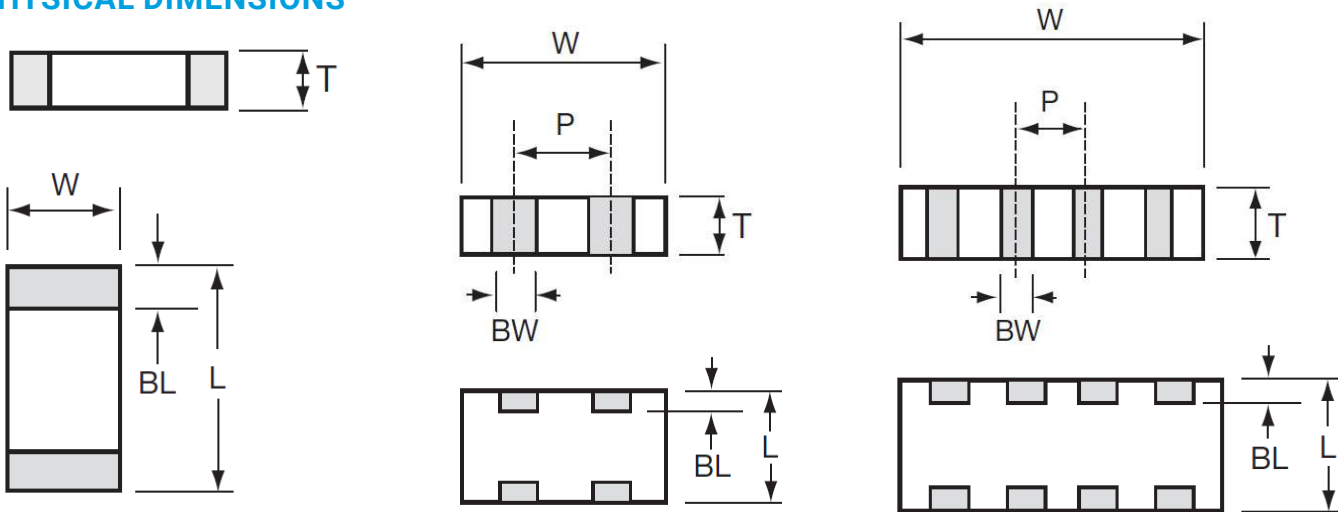
V <sub>w</sub> (DC)	DC Working Voltage [V]	I <sub>L</sub>	Maximum leakage current at the working voltage [μA]
V <sub>w</sub> (AC)	AC Working Voltage [V]	Cap	Capacitance [pF] @ 1MHz specified and 0.5V <sub>RMS</sub>

# Low Capacitance +150°C Automotive Series Varistors

## 150°C Rated Varistors with Low Signal Distortion / Low Capacitance



### PHYSICAL DIMENSIONS



### 0603 DISCRETE DIMENSIONS

mm (inches)

L	W	T	BW	BL	P
1.60±0.15 (0.063±0.006)	0.80±0.15 (0.032±0.006)	0.90 MAX (0.035 MAX)	N/A	0.35±0.15 (0.014±0.006)	N/A

### 0405 2 ELEMENTS ARRAY DIMENSIONS

mm (inches)

L	W	T	BW	BL	P
1.00±0.15 (0.039±0.006)	1.37±0.15 (0.054±0.006)	0.66 MAX (0.026 MAX)	0.36±0.10 (0.014±0.004)	0.20±0.10 (0.008±0.004)	0.64 REF (0.025 REF)

### 0612 4 ELEMENTS ARRAY DIMENSIONS

mm (inches)

L	W	T	BW	BL	P
1.60±0.20 (0.063±0.008)	3.20±0.20 (0.126±0.008)	1.22 MAX (0.048 MAX)	0.41±0.10 (0.016±0.004)	0.18 <sup>+0.25</sup> <sub>-0.08</sub> (0.008 <sup>+0.10</sup> <sub>-0.003</sub> )	0.76 REF (0.030 REF)

### S21 CHARACTERISTICS - CANATL07

