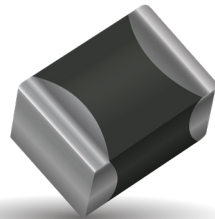


Low Capacitance +150°C Automotive Series Varistors

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

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



| AVX Part Number | V _w (DC) | V _w (AC) | V _B | I _L | E _T | I _p | 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

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



| PN | V _w (DC) | V _w (AC) | V _B | V _C | I _{VC} | I _{L1} | I _{L2} | E _T | I _p | Typ Cap | Cap Tol | V _{Jump} | P _{Diss} | Case Size |
|----------|---------------------|---------------------|----------------|----------------|-----------------|-----------------|-----------------|----------------|----------------|---------|---------|-------------------|-------------------|-----------|
| CANATL07 | 32 | 25 | 61±15% | 120 | 1 | 1 | <1 | 0.05 | 5 | 10 | ±50% | 27.5 | 0.003 | 0603 |

| | | | |
|---------------------|---|-------------------|---|
| V _w (DC) | DC Working Voltage [V] | I _{L2} | Typical leakage current at 28Vdc, 25°C [μA] |
| V _w (AC) | AC Working Voltage [V] | E _T | Transient Energy Rating [J, 10x1000μs] |
| V _B | Breakdown Voltage [V @ 1mA _{DC} , 25°C] | I _p | Peak Current Rating [A, 8x20μs] |
| V _C | Clamping Voltage [V @ I _{VC}] | Cap | Capacitance [pF] @ 1MHz and 0.5V _{RMS} |
| I _{VC} | Test Current for VC [A, 8x20μs] | V _{Jump} | Jump Start [V, 5 min] |
| I _{L1} | Maximum leakage current at the working voltage, 25°C [μA] | P _{Diss} | Max Power Dissipation [W] |

ANTENNAGUARD SERIES

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

| AVX Part Number | V _w (DC) | V _w (AC) | I _L | Cap | Cap Tolerance | Case Size |
|--------------------|---------------------|---------------------|----------------|-----|---------------|-----------|
| VCAT06AG18120YAT-- | ≤ 18 | ≤ 14 | 10 | 12 | +4, -2pF | 0603 |

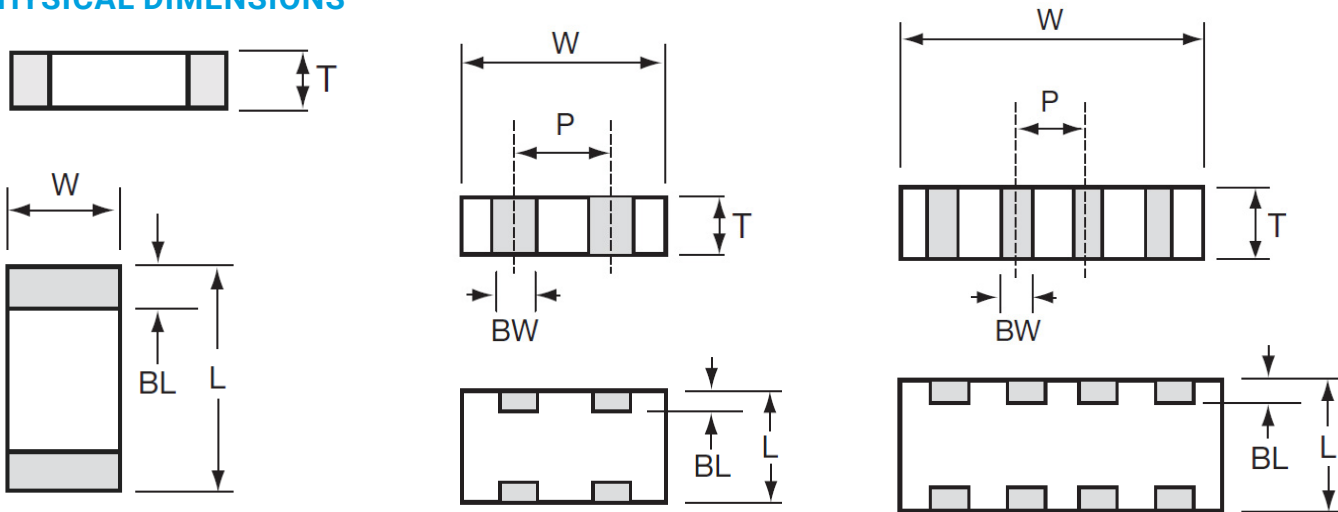
| | | | |
|---------------------|------------------------|----------------|---|
| V _w (DC) | DC Working Voltage [V] | I _L | Maximum leakage current at the working voltage [μA] |
| V _w (AC) | AC Working Voltage [V] | Cap | Capacitance [pF] @ 1MHz specified and 0.5V _{RMS} |

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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 ^{+0.25} _{-0.08} (0.008 ^{+0.10} _{-0.003}) | 0.76 REF (0.030 REF) |

S21 CHARACTERISTICS - CANATL07

