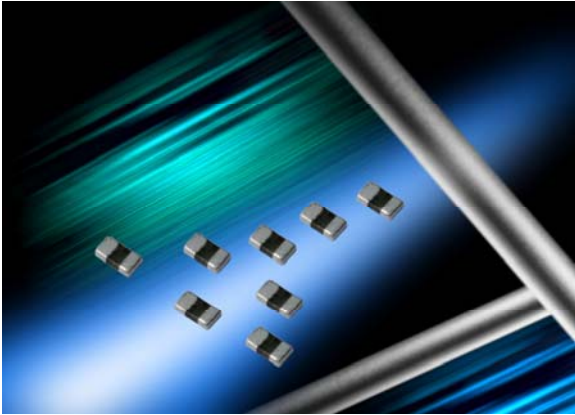




# High Temperature Automotive MultiLayer Varistor



AVX High Temperature Multi-Layer Varistors are designed for underhood applications. Products have been tested, qualified, and specified 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.

The CAN and AntennaGuard series are the first releases in a planned series to include higher voltages and a variety of case size. AEC Q200 data packages available.

AVX Part No.	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

AVX Part NO.	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]

V<sub>W</sub>(AC) AC Working Voltage [V]

V<sub>B</sub> Breakdown Voltage [V @ 1mA<sub>DC</sub>]

V<sub>C</sub> Clamping Voltage [V @ I<sub>VC</sub>]

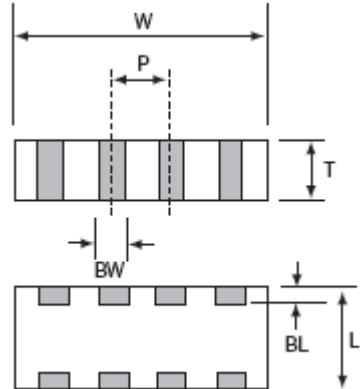
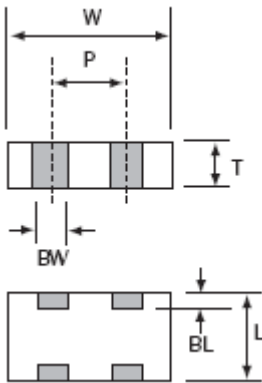
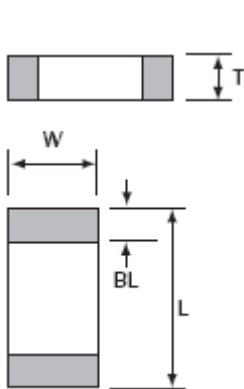
I<sub>VC</sub> Test Current for V<sub>C</sub> [A, 8x20μS]

I<sub>L</sub> Maximum leakage current at the working voltage [μA]

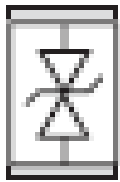
E<sub>T</sub> Transient Energy Rating [J, 10x1000μS]

I<sub>P</sub> Peak Current Rating [A, 8x20μS]

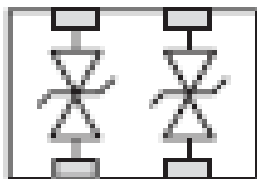
Cap Capacitance [pF] @ 1KHz specified and 0.5V<sub>RMS</sub>



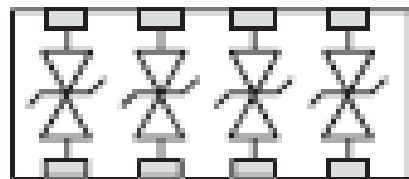
Size (EIA)	0603 Discrete	0405 - 2 Elements Array	0612 - 4 Elements Array
<b>L</b>	1.60±.15 (0.063±0.006)	1.00±0.15 (0.039±0.006)	1.60±0.20 (0.063±0.008)
<b>W</b>	0.80±0.15 (0.032±0.006)	1.37±0.15 (0.054±0.006)	3.20±0.20 (0.126±0.008)
<b>T</b>	0.90 Max (0.035 Max.)	0.66 Max (0.026 Max.)	1.22 Max (0.048 Max.)
<b>BW</b>	N/A	0.36±0.10 (0.014±0.004)	0.41±0.10 (0.016±0.004)
<b>BL</b>	0.35±0.15 (0.014±0.006)	0.20±0.10 (0.008±0.004)	0.18+0.25/-0.08 (0.007+.01/-0.003)
<b>P</b>	N/A	0.64 REF (0.025 REF)	0.76 REF (0.030 REF)



**0603  
Discrete**



**0405  
Array**



**0612  
Array**

No.	Item	Requirement	Test method
1	Operating Temp.	-55°C to +150° C	
2	Appearance/Dimensions	No visible damage Dimensions: see par. 6	Visual examination at 10% magnification Dimensions verification by class2 caliper
3	Peak Current	Breakdown voltage change shall not be more than $\pm 10\%$	a. Apply 1mA DC of each polarity to device terminals. Record polarity and magnitude of resultant voltage. b. Apply 8x20 $\mu$ S current pulse, peak value per standard parts table 5, to terminals with same polarity as Step (a). c. Apply 1mA DC to terminals, same polarity as Steps (a) and (b). Record magnitude of resultant voltage.
4	Transient Energy	Breakdown voltage change shall not be more than $\pm 10\%$	(a) Apply 1mA DC of each polarity to device terminals. Record polarity and magnitude of resultant voltage. (b) Apply 10x1000 $\mu$ S current pulse of amplitude sufficient to generate the energy as specified in standard parts table, 5(calculated by $E=0.0014V_p I_p$ , where $V_p$ is peak value of voltage and $I_p$ is peak current)
5	Solderability	The dipped surface shall be at least 95% covered with a new smooth solder coating.	Soak in eutectic solder bath of temperature at 230+/-5°C for 5sec.
6	Solder heat resistance	No mechanical damage. Forward Breakdown voltage change shall not be more than $\pm 10\%$	a. Read forward breakdown voltage. b. Soak in eutectic solder bath of temperature at 260+/-5°C. for 10+/-1sec. c. Natural cool down to +25°C d. Read forward breakdown voltage after 24+/-2 hours.
7	Humidity Life	Forward breakdown voltage change shall not be more than $\pm 10\%$	a. Read forward breakdown voltage. b. Leave device in chamber of +85+/-3°C, 85+5% relative humidity at 100% of working voltage for 1,000 $\pm$ 5hours. c. Read forward breakdown voltage after 3-4 hours conditioning at 25+/-5°C
8	Life Test	Forward breakdown voltage change shall not be more than $\pm 10\%$ and IL spec is allowed to increase by one order of magnitude	a. Read forward breakdown voltage. b. Apply 100% of working voltage at test temperature of 150+/-4°C for 1,000+48/-0hours. c. Read forward breakdown voltage after 24+/-2 hours conditioning at 25+/-5°C
9	Termination Strength	All components must stay in place.	a. Solder components onto substrate. b. Apply 500 grams lateral force across the body of the component.

## Данный компонент на территории Российской Федерации

### Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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