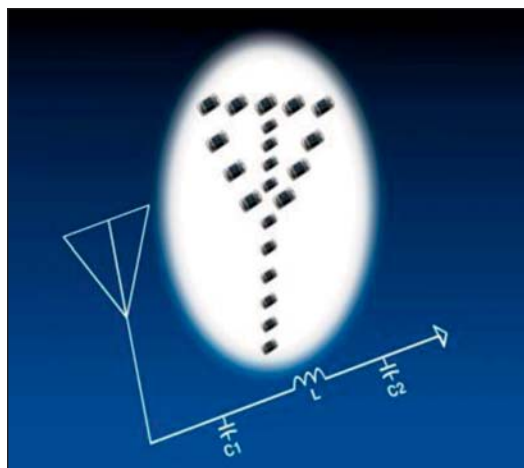


AntennaGuard 0402/0603 Automotive Series

AVX Low Capacitance Automotive Varistors

ESD Protection for Automotive Circuits Sensitive to Capacitance



GENERAL DESCRIPTION

AVX 0402/0603 Automotive AntennaGuard products are an ultra low capacitance extension to the Automotive TransGuard® Series and are intended for use in RF and other capacitance sensitive circuits.

These low capacitance values have low insertion loss, low leakage current and unsurpassed reliability compared to diode options. These advantages combined with size advantages and bi-directional protection make the AntennaGuard the right choice for automotive applications including RF circuits, sensors, high-speed signal transmission lines, etc...



GENERAL CHARACTERISTICS

- Operating Temperature: -55°C to +125°C
- Working Voltage: ≤18Vdc
- Case Size: 0402, 0603

FEATURES

- AEC Q200 Qualified
- 25kV ESD rating
- Meet 27.5Vdc Jump Start requirements
- Multi-strike capability
- Sub 1nS response to ESD strike

APPLICATIONS

- RF Circuit
- Sensors
- Antennas
- Data lines
- Keyless entry
- Capacitance sensitive applications

HOW TO ORDER

VC	AS	06	AG	18	3R0	Y	A	T	1	A
Varistor Chip	Series	Case Size	Type	Working Voltage	Capacitance	Non-Std Cap Tol	Not Applicable	Termination	Reel Size	Reel Qty
	AS = Automotive	04 = 0402 06 = 0603		18 = 18.0VDC	2R0 = 2pF 3R0 = 3pF 120 = 12pF	C = ±0.25pF (2R0) Y = Max (for 3pF) Y = +4/-2pF (for 12pF)		T = Ni/Sn Plated	1 = 7" reel 3 = 13" reel W = 7" reel (0402 only)	A = 4K or 10K pcs (i.e.: 1A = 4,000 3A = 10,000 WA = 10,000)

ELECTRIAL CHARACTERISTICS

AVX Part Number	V _w (DC)	V _w (AC)	I _L	Cap	Cap Tolerance	V _{Jump}	Case Size
VCAS04AG183R0YAT_ _	≤ 18	≤ 14	0.1	3	Max	27.5	0402
VCAS06AG182R0CAT_ _	≤ 18	≤ 14	0.1	2	±0.25pF	27.5	0603
VCAS06AG183R0YAT_ _	≤ 18	≤ 14	0.1	3	Max	27.5	0603
VCAS06AG18120YAT_ _	≤ 18	≤ 14	0.1	12	+4, -2pF	27.5	0603

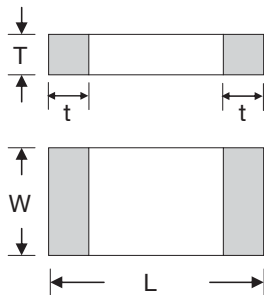
Termination Finish Code
Packaging Code

V _w (DC)	DC Working Voltage (V)
V _w (AC)	AC Working Voltage (V)
I _L	Maximum Leakage Current at the Working Voltage (μA)
Cap	Maximum Capacitance (pF) @ 1 MHz and 0.5 Vrms; VC06AG18120YAT capacitance tolerance: +4, -2pF
V _{Jump}	Jump Start (V)

AntennaGuard 0402/0603 Automotive Series

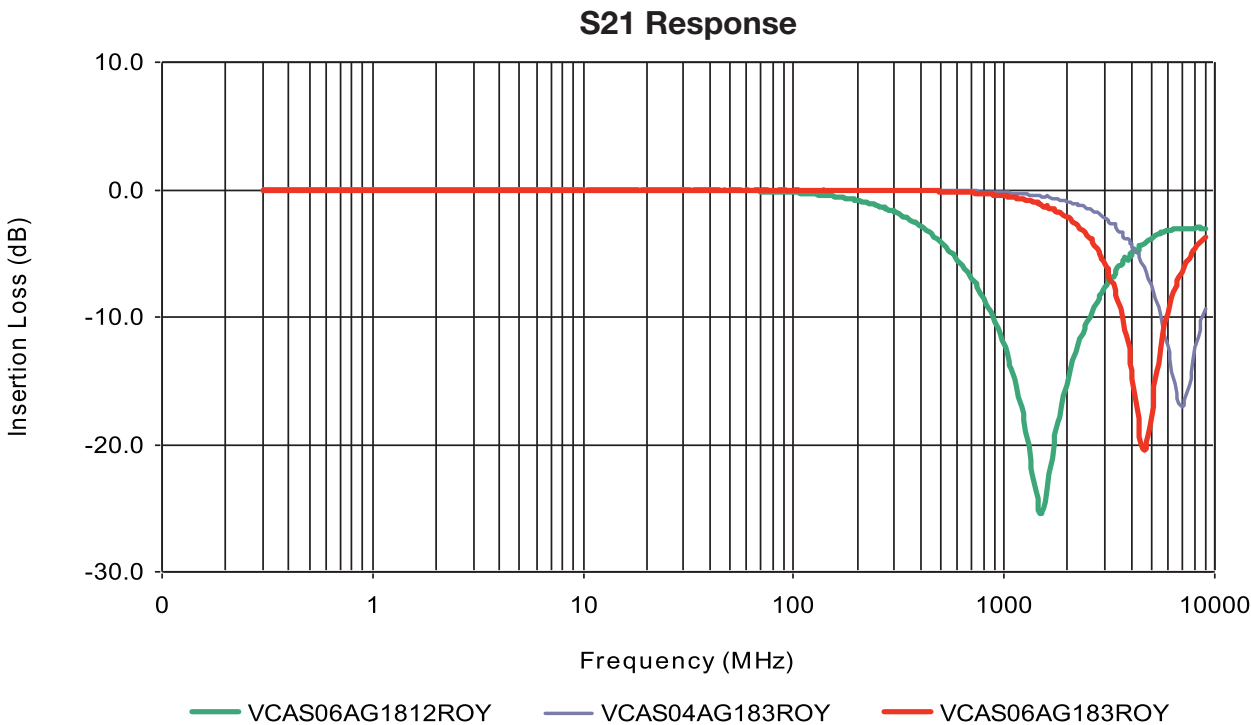
AVX Low Capacitance Automotive Varistors
ESD Protection for Automotive Circuits Sensitive to Capacitance

PHYSICAL DIMENSIONS: mm (inches)



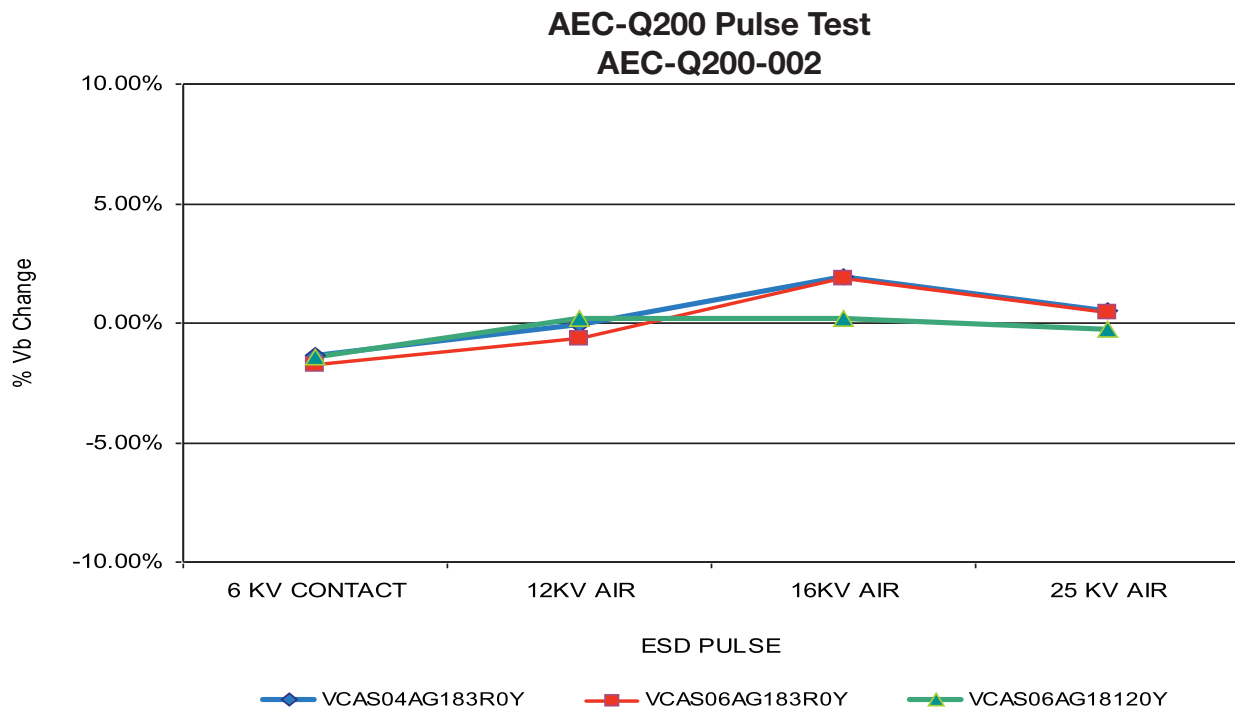
Size (EIA)	Length (L)	Width (W)	Max Thickness (T)	Land Length (t)
0402	1.00±0.10 (0.040±0.004)	0.50±0.10 (0.020±0.004)	0.60 (0.024)	0.25±0.15 (0.010±0.006)
0603	1.60±0.15 (0.063±0.006)	0.80±0.15 (0.031±0.006)	0.90 (0.035)	0.35±0.15 (0.014±0.006)

S21 TRANSMISSION CHARACTERISTICS



AVX Low Capacitance Automotive Varistors ESD Protection for Automotive Circuits Sensitive to Capacitance

ESD CHARACTERISTICS



ELECTRICAL TRANSIENT CONDUCTION

