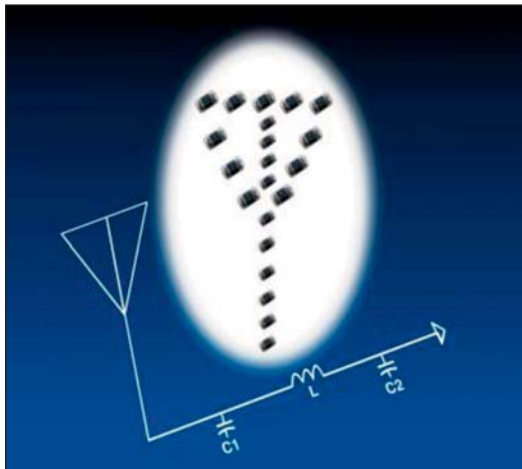


AntennaGuard Automotive Series



Multilayer Varistors for Automotive Applications



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...

FEATURES

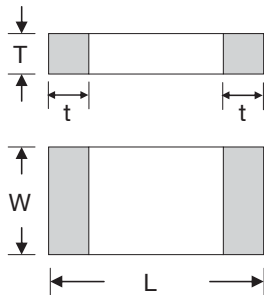
- AEC Q200 Qualified
- 25kV ESD rating
- Meet 27.5Vdc Jump Start requirements
- Multi-strike capability
- Sub 1nS response to ESD strike



HOW TO ORDER

VC Varistor Chip	AS Series AS = Automotive	06 Case Size 04 = 0402 06 = 0603 08 = 0805	AG Type	18 Working Voltage 18 = 18.0VDC	3R0 Capactance 3R0 = 3pF 120 = 12pF	Y Non-Std Cap Tol Y = Max	A Not Applicable	T Termination T = Ni/Sn Plated 1 = pd/Ag/Pt	R Reel T = Ni/Sn Plated 1 = pd/Ag/Pt	P Reel A = 4K or 10K
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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)

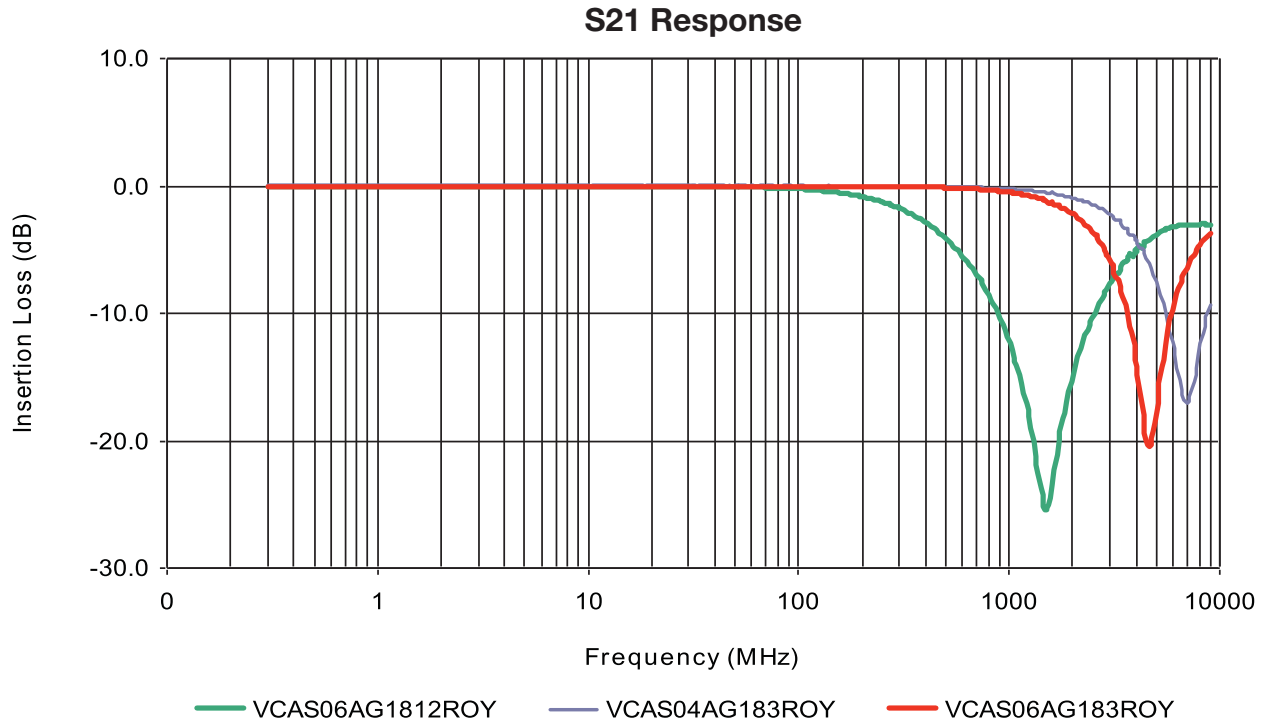
ELECTRIAL CHARACTERISTICS

AVX Part Number	Working Voltage (DC)	Working Voltage (AC)	Maximum Leakage Current	Cap	Case Size	Elements	Jump Start
VCAS04AG183R0Y	≤18.0	≤14.0	0.1	3 max	0402	1	27.5
VCAS06AG183R0Y	≤18.0	≤14.0	0.1	3 max	0603	1	27.5
VCAS06AG18120Y	≤18.0	≤14.0	0.1	12 ^{±2}	0603	1	27.5

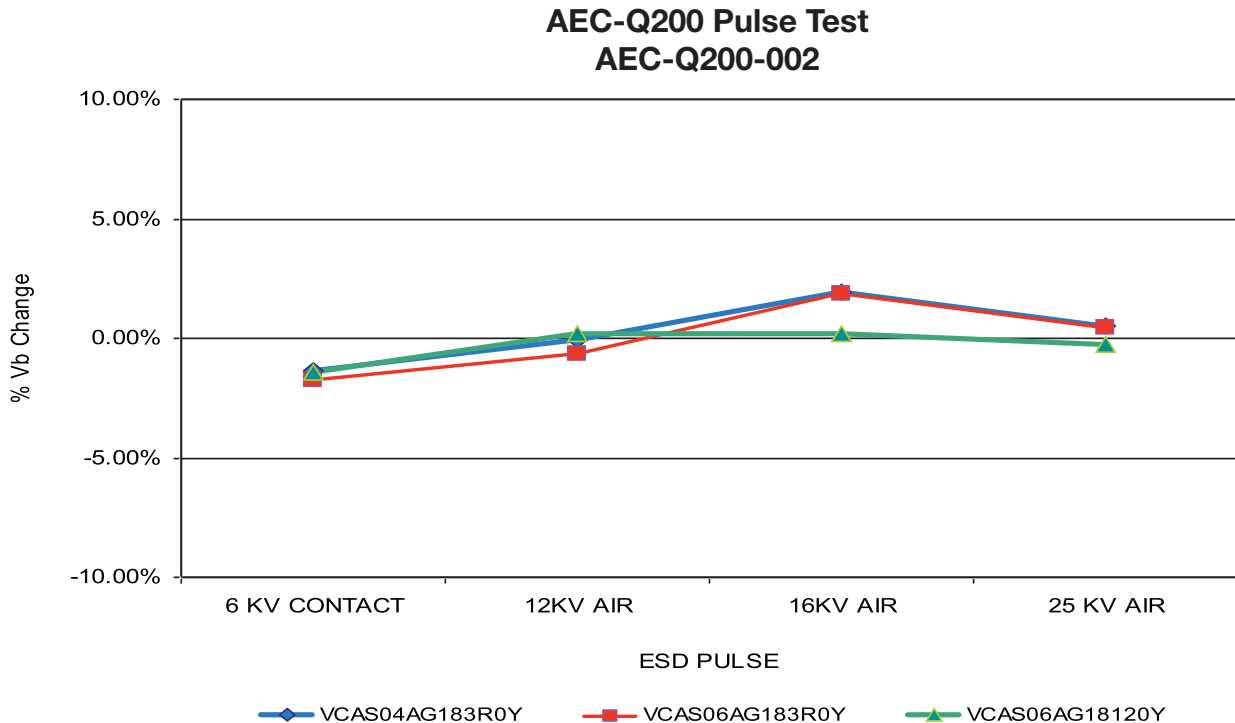
- V_w (DC) DC Working Voltage (V)
- V_w (AC) AC Working Voltage (V)
- I_L Maximum Leakage Current at the Working Voltage (μ A)
- Cap Capacitance (pF) @ frequency specified and $0.5 V_{RMS}$
- Jump Start Maximum Jump start voltage at 5 minutes



S21 TRANSMISSION CHARACTERISTICS



ESD CHARACTERISTICS



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ELECTRICAL TRANSIENT CONDUCTION

