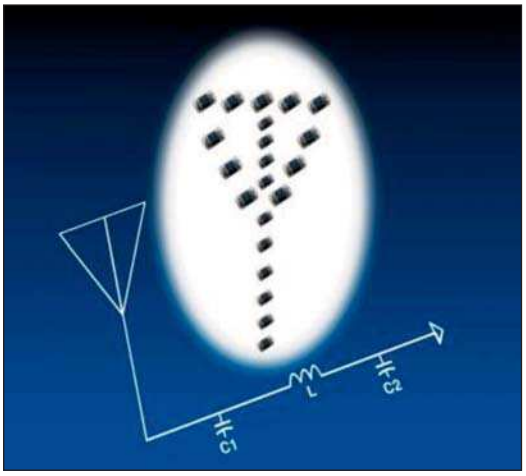
AntennaGuard Automotive Series

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

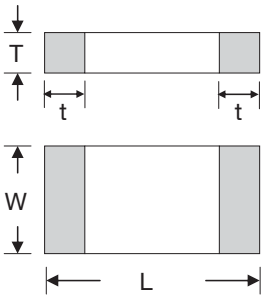
- AEC Q200 Qualified
- 25kV ESD rating
- Meet 27.5Vdc Jump Start requirements
- Multi-strike capability
- Sub 1nS response to ESD strike

RoHS COMPLIANT

HOW TO ORDER

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

PHYSICAL DIMENSIONS: mm (inches)



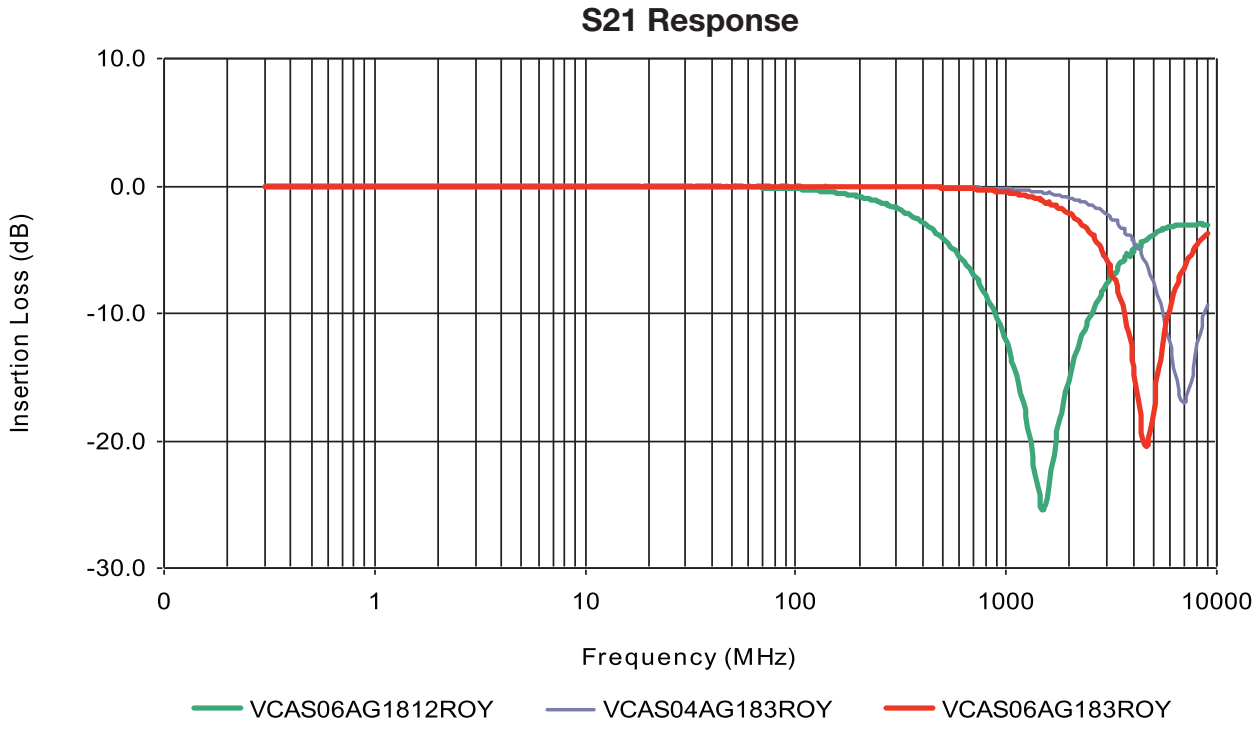
Size (EIA)	Length (L)	Width (W)	Max Thickness (T)	Land Length (t)
0402	1.00±0.10 (0.040±0.004)	0.50±0.10 (0.020±0.004)	0.60 (0.024)	0.25±0.15 (0.010±0.006)
0603	1.60±0.15 (0.063±0.006)	0.80±0.15 (0.031±0.006)	0.90 (0.035)	0.35±0.15 (0.014±0.006)

ELECTRIAL CHARACTERISTICS

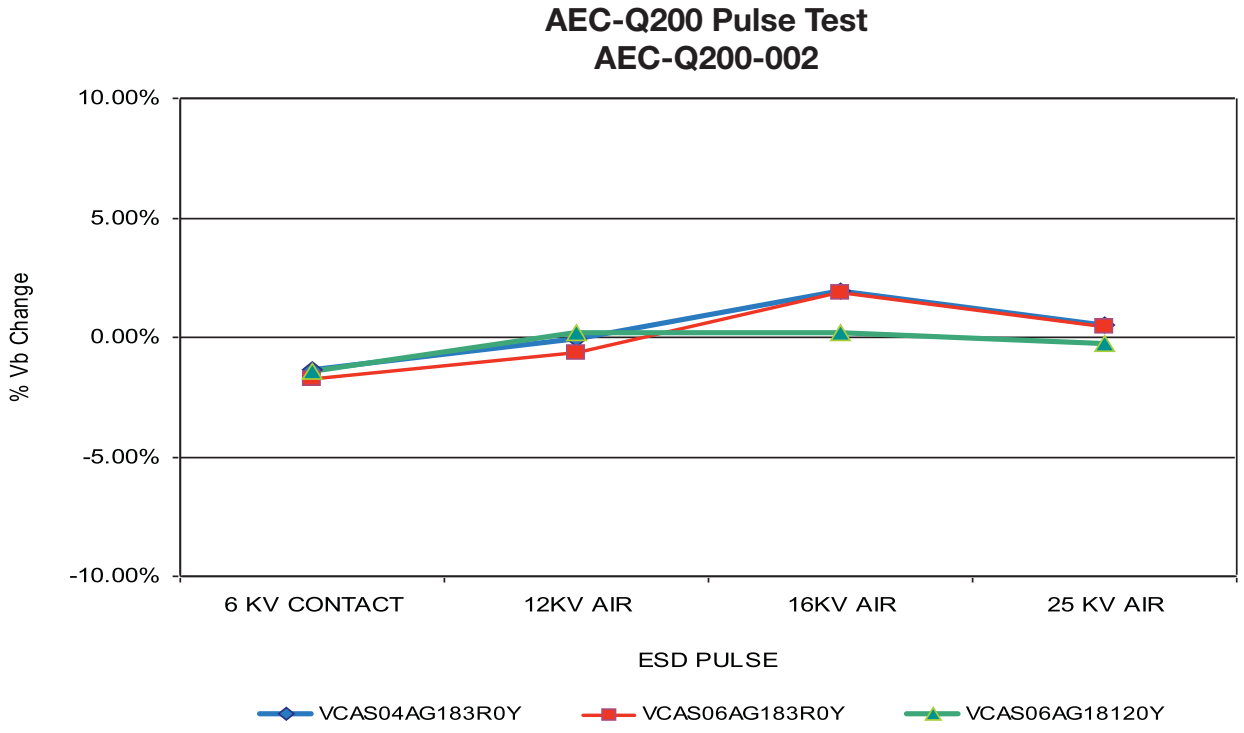
AVX Part Number	Working Voltage (DC)	Working Voltage (AC)	Maximum Leakage Current	Cap	Case Size	Elements	Jump Start
VCAS04AG183R0Y	≤18.0	≤14.0	0.1	3 max	0402	1	27.5
VCAS06AG183R0Y	≤18.0	≤14.0	0.1	3 max	0603	1	27.5
VCAS06AG18120Y	≤18.0	≤14.0	0.1	12^{+4}_{-2}	0603	1	27.5

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

S21 TRANSMISSION CHARACTERISTICS



ESD CHARACTERISTICS



ELECTRICAL TRANSIENT CONDUCTION