

Automotive Sub pF AG Series

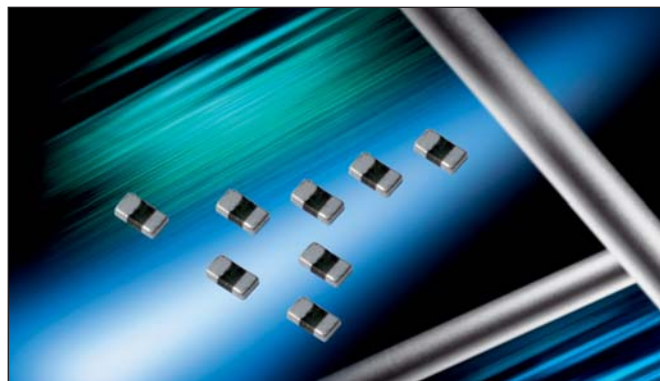


AVX Ultra-low Capacitance Automotive Varistor for ESD Protection for Automotive Circuits Sensitive to Capacitance

GENERAL DESCRIPTION

AVX offers ultra-low capacitance ESD protection in the Sub 1pF range for use in automotive circuits that are sensitive to capacitance. The Automotive Sub pF Varistor (ASPV) is available in 0.8pF capacitance value in a compact 0402 low profile package. ASPV devices provide excellent response time to ESD strikes to protect sensitive circuits from over voltage.

The development of new information processing technologies call for ever increasing digital system speeds. Higher speeds necessitate the use of ultra-low capacitance values in order to minimize signal distortion.



FEATURES

- High Reliability
- Capacitance <1pF
- Bi-Directional protection
- Fastest response time to ESD strikes
- Multi-strike capability
- Low insertion loss
- Low profile 0402 case size
- AEC-Q 200 Qualified

APPLICATIONS

- Antennas, RF circuits
- Optics
- HDMI, Firewire, Thunderbolt
- High speed communication bus
- GPS
- Camera link
- Sensors
- Touch screen interfaces
- Circuits sensitive to capacitance

HOW TO ORDER

VC	AS	H4	AG	16	0R8	M	A	T	W	A
Varistor Chip	Automotive Series	Chip Size Low Profile 0402	Varistor Series AG Series Ultra-low Capacitance	Working Voltage 16 = 16V	Capacitance 0R8 = 0.8pF	Tolerance M = $\pm 20\%$	N/A	Termination T = Ni Barrier/ 100% Sn	Reel Size W = 7"	Reel Quantity A = 10k

ANTENNAGUARD CATALOG PART NUMBERS/ELECTRICAL VALUES

AVX Part Number	V _w (DC)	V _B	I _L	Cap	Cap Tolerance	3db Freq (MHz)	Case Size
VCASH4AG160R8MA	≤ 16	125	1	0.8	$\pm 20\%$	5800	LP 0402

V_w(DC) DC Working Voltage (V)

V_B Typical Breakdown Voltage (V @ 1mA_{DC})

I_L Typical leakage current at the working voltage

Cap Typical capacitance (pF) @ frequency specified and 0.5V_{RMS}

Freq Frequency at which capacitance is measured (M = 1MHz)

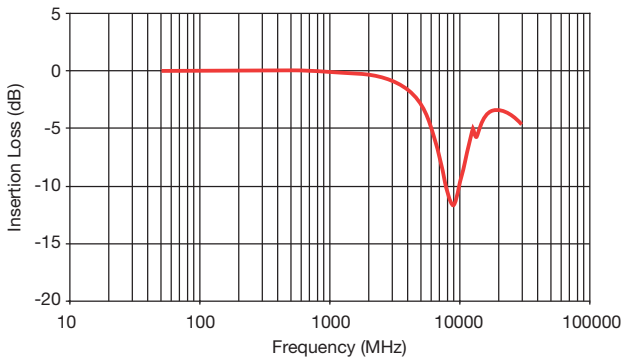


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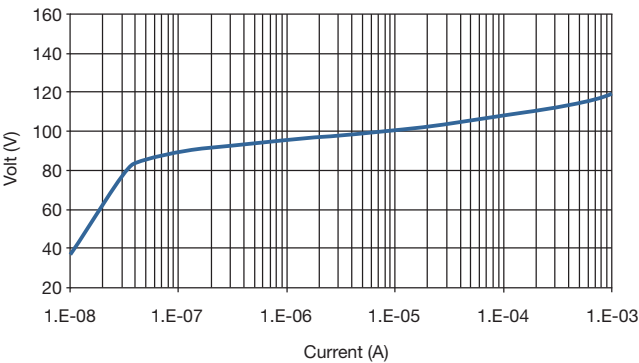


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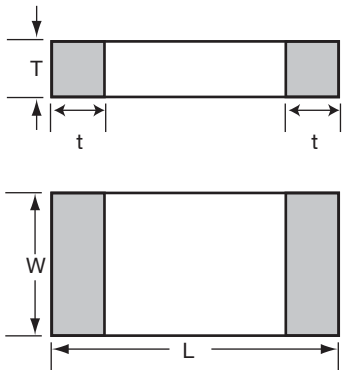
S21 Transmission Characteristics -SPV



V/I Curve - SPV



DIMENSIONS



mm (inches)

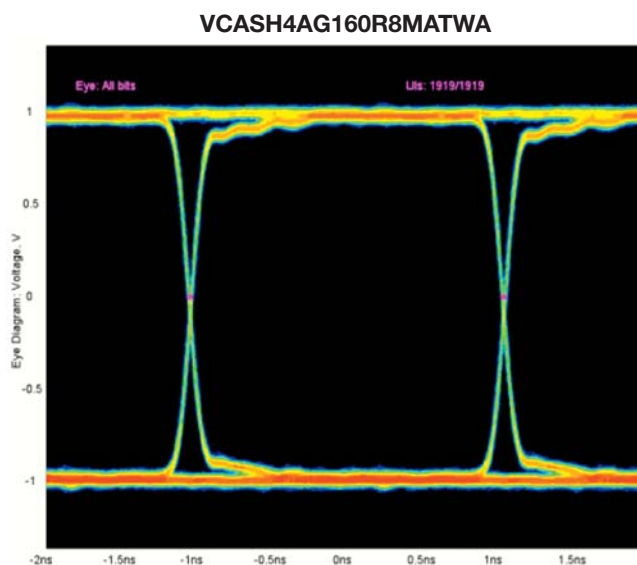
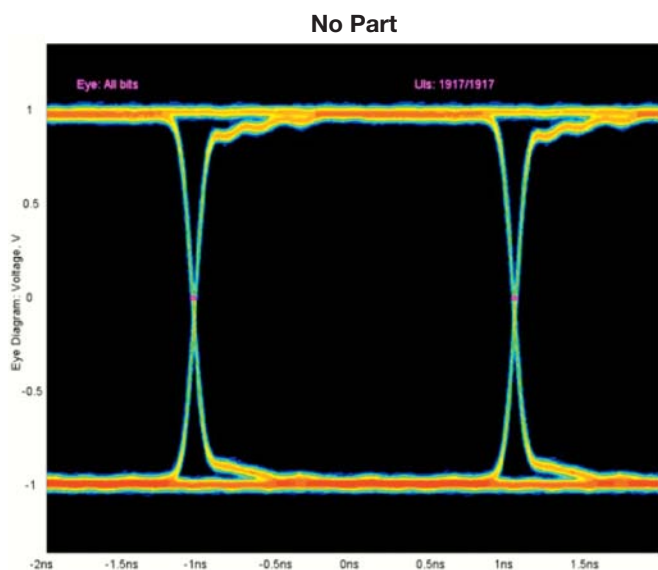
Size (EIA)	0402
Length (L)	1.00 ±0.10 (0.040 ± 0.004)
Width (W)	0.50 ±0.10 (0.020 ±0.004)
Max Thickness (T)	0.35 (0.014)
Terminal (t)	0.25±0.15 (0.010±0.006)

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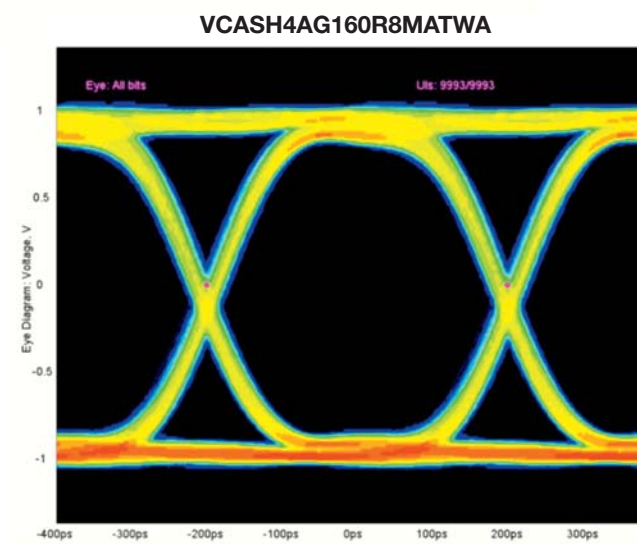
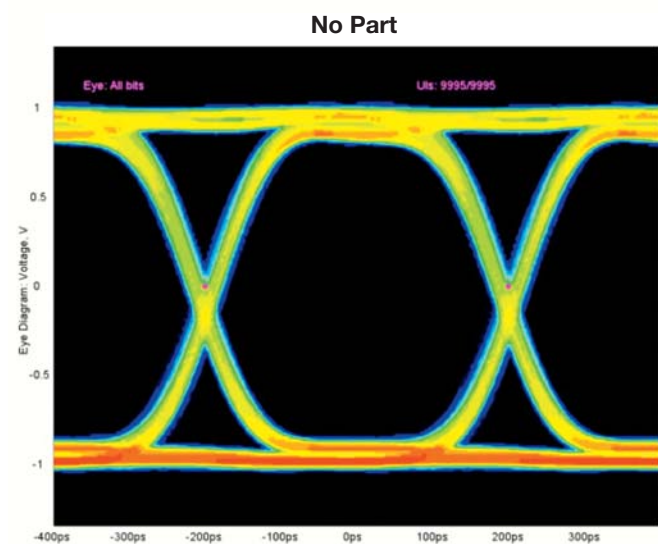


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EYE DIAGRAM - USB-HS (480MHZ) TEST



EYE DIAGRAM - PCI-E (2.5GHZ) TEST



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[VCASH4AG160R8MATWA](#)