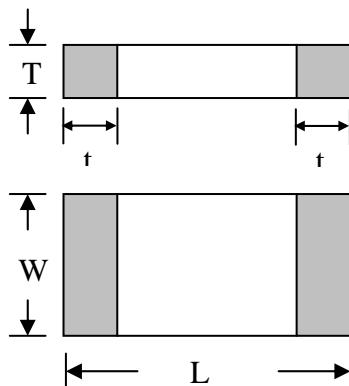
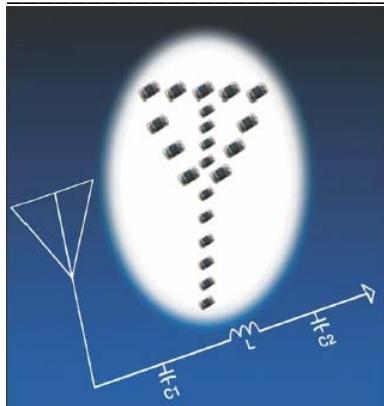




# VCH4AG100R8MATWA

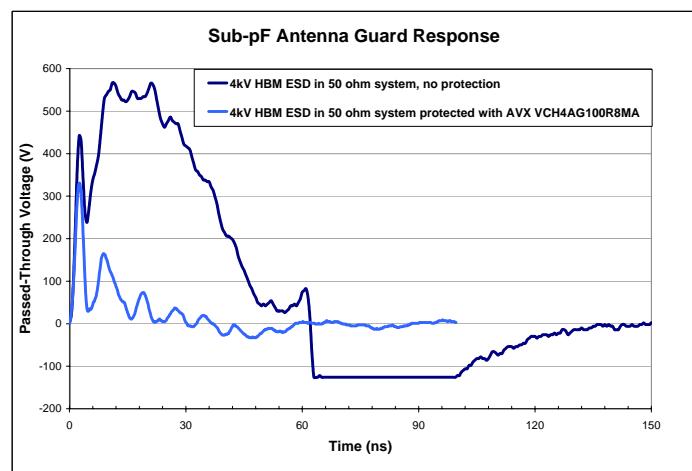
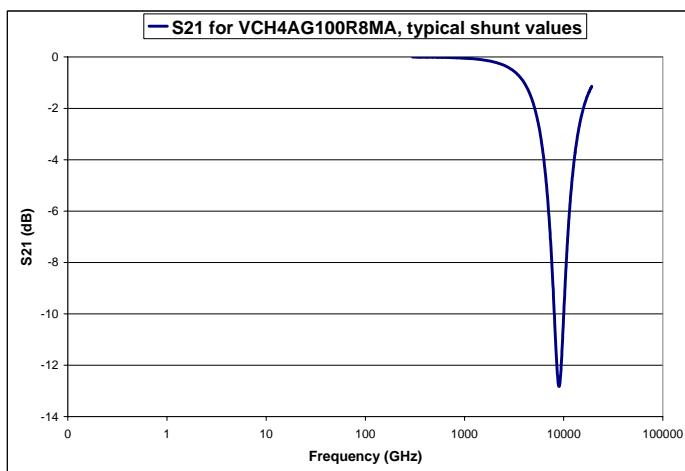


Size (EIA)		0402
Length (L)	mm (in)	1.00 $\pm$ 0.10 (0.040 $\pm$ 0.004)
Width (W)	mm (in)	0.50 $\pm$ 0.10 (0.020 $\pm$ 0.004)
Max Thickness (T)	mm (in)	0.35 (0.014)
Terminal (t)	mm (in)	0.25 $\pm$ 0.15 (0.010 $\pm$ 0.006)

<u>VCH4</u>	<u>AG</u>	<u>10</u>	<u>0R8</u>	<u>M</u>	<u>A</u>	<u>T</u>	<u>W</u>	<u>A</u>
Varistor Chip Chip Size Thin 0402	Varistor Series AntennaGuard	Working Voltage 10 = 10V	Capacitance Value 0R8 = 0.8pf	Tolerance M = $\pm$ 20%	N/A	Termination T = Ni/Sn Alloy	Reel Size W = 7"	Reel Qty A = 4k

AVX Part Number	V <sub>W</sub> (DC)	V <sub>B</sub>	I <sub>L</sub>	Cap	Freq	Case Size
VCH4AG100R8MA	$\leq$ 10	125	<10 nA	0.8	M	0402

<b>V<sub>W</sub>(DC)</b>	DC Working Voltage [V]
<b>V<sub>B</sub></b>	Typical Breakdown Voltage [V @ 1mA <sub>DC</sub> ]
<b>I<sub>L</sub></b>	Typical leakage current at the working voltage
<b>Cap</b>	Typical capacitance [pF] @ frequency specified and 0.5V <sub>RMS</sub>
<b>Freq</b>	Frequency at which capacitance is measured [M = 1MHz]



Parameter/Test	Requirement	Test method
<b>Operating Range</b>	-55°C to +125° C	
<b>Appearance/Dimensions</b>	No visible damage Dimensions: see par. 6	Visual examination at 10% magnification Dimensions verification by class2 caliper
<b>Solderability</b>	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.
<b>Solder Heat Resistance</b>	No mechanical damage. Forward Breakdown voltage change shall not be more than $\pm 10\%$	<ol style="list-style-type: none"> <li>Read forward breakdown voltage.</li> <li>Soak in eutectic solder bath of temperature at 260+-5°C. for 10+-1sec.</li> <li>Natural cool down to +25°C</li> <li>Read forward breakdown voltage after 24+-2 hours.</li> </ol>
<b>ESD</b>	IL @ RV <100nA	<ol style="list-style-type: none"> <li>Read IL</li> <li>1k pulses @ 8kV contact (8 X 20uS waveform)</li> <li>Read IL</li> </ol>
<b>Life Test</b>	Forward breakdown voltage change shall not be more than $\pm 10\%$	<ol style="list-style-type: none"> <li>Read forward breakdown voltage.</li> <li>Apply 100% of working voltage at test temperature of 125+-4°C for 1,000+48/-0hours.</li> <li>Read forward breakdown voltage after 24+-2 hours conditioning at 25+-5°C</li> </ol>
<b>Termination Strength</b>	All components must stay in place.	<ol style="list-style-type: none"> <li>Solder components onto substrate.</li> <li>Apply 500 grams lateral force across the body of the component.</li> </ol>
<b>Thermal Shock</b>	Forward breakdown voltage change shall not be more than $\pm 10\%$	<p>Step 1: <math>-55^{\circ}\text{C} \pm 2^{\circ}\text{C}</math> for <math>30 \pm 3</math> min  Step 2: Room temp for <math>\leq 3</math> min  Step 3: <math>+125^{\circ}\text{C} \pm 2^{\circ}\text{C}</math> for <math>30 \pm 3</math> min  Step 4: Room temp for <math>\leq 3</math> min  Repeat for 100 cycles and measure after 24 hours at room temperature</p>