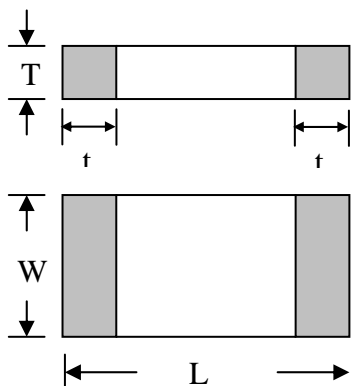
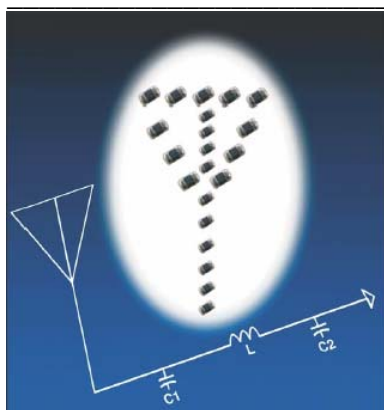




# VCH4AG100R8MATWA



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

## VCH4

Varistor Chip  
Chip Size  
Thin 0402

## AG

Varistor Series  
AntennaGuard

## 10

Working  
Voltage  
10 = 10V

## 0R8

Capacitance  
Value  
0R8 = 0.8pf

## M

Tolerance  
M = ±20%

## A

N/A

## I

Termination  
T = Ni/Sn Alloy

## W

Reel  
Size  
W = 7"

## A

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	≤10	125	<10 nA	0.8	M	0402

### V<sub>w</sub>(DC)

DC Working Voltage [V]

### V<sub>B</sub>

Typical Breakdown Votage [V @ 1mA<sub>DC</sub>]

### I<sub>L</sub>

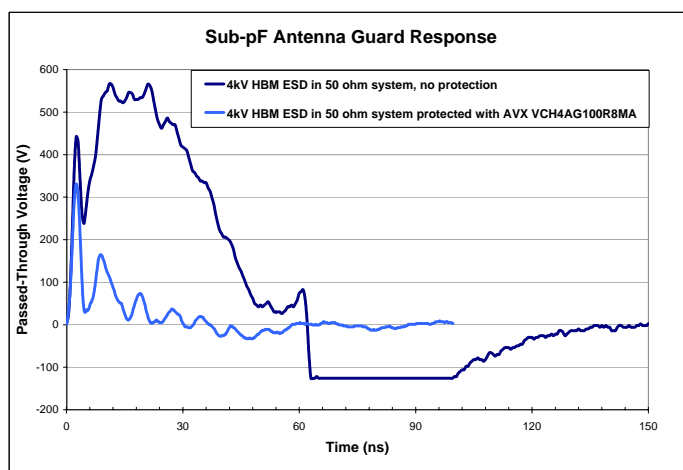
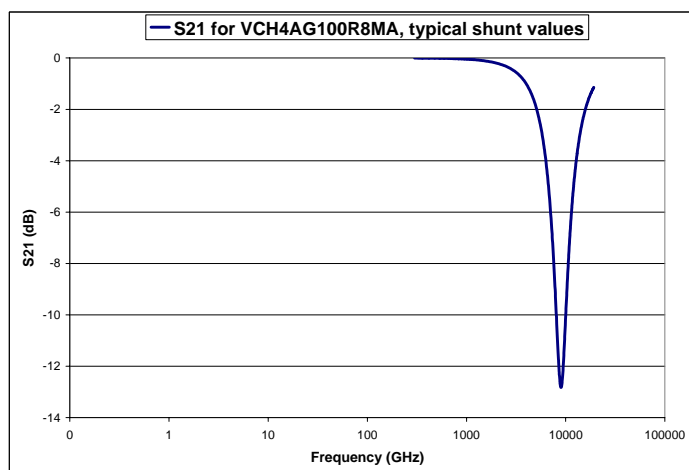
Typical leakage current at the working voltage

### Cap

Typical capacitance [pF] @ frequency specified and 0.5V<sub>RMS</sub>

### Freq

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 $\pm 10\%$	a. Read forward breakdown voltage. b. Soak in eutectic solder bath of temperature at 260+/-5°C. for 10+/-1sec. c. Natural cool down to +25°C d. Read forward breakdown voltage after 24+/-2 hours.
<b>ESD</b>	IL @ RV <100nA	a. Read IL b. 1k pulses @ 8kV contact (8 X 20uS waveform) c. Read IL
<b>Life Test</b>	Forward breakdown voltage change shall not be more than $\pm 10\%$	a. Read forward breakdown voltage. b. Apply 100% of working voltage at test temperature of 125+/-4°C for 1,000+48/-0hours. c. Read forward breakdown voltage after 24+/-2 hours conditioning at 25+/-5°C
<b>Termination Strength</b>	All components must stay in place.	a. Solder components onto substrate. b. Apply 500 grams lateral force across the body of the component.
<b>Thermal Shock</b>	Forward breakdown voltage change shall not be more than $\pm 10\%$	Step 1: -55°C $\pm 2^\circ\text{C}$ for 30 $\pm 3$ min Step 2: Room temp for $\leq 3$ min Step 3: +125°C $\pm 2^\circ\text{C}$ for 30 $\pm 3$ min Step 4: Room temp for $\leq 3$ min Repeat for 100 cycles and measure after 24 hours at room temperature