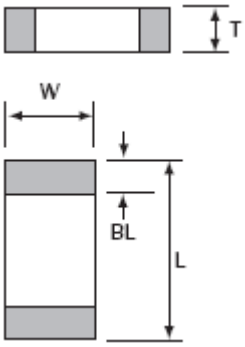
Automotive StaticGuard



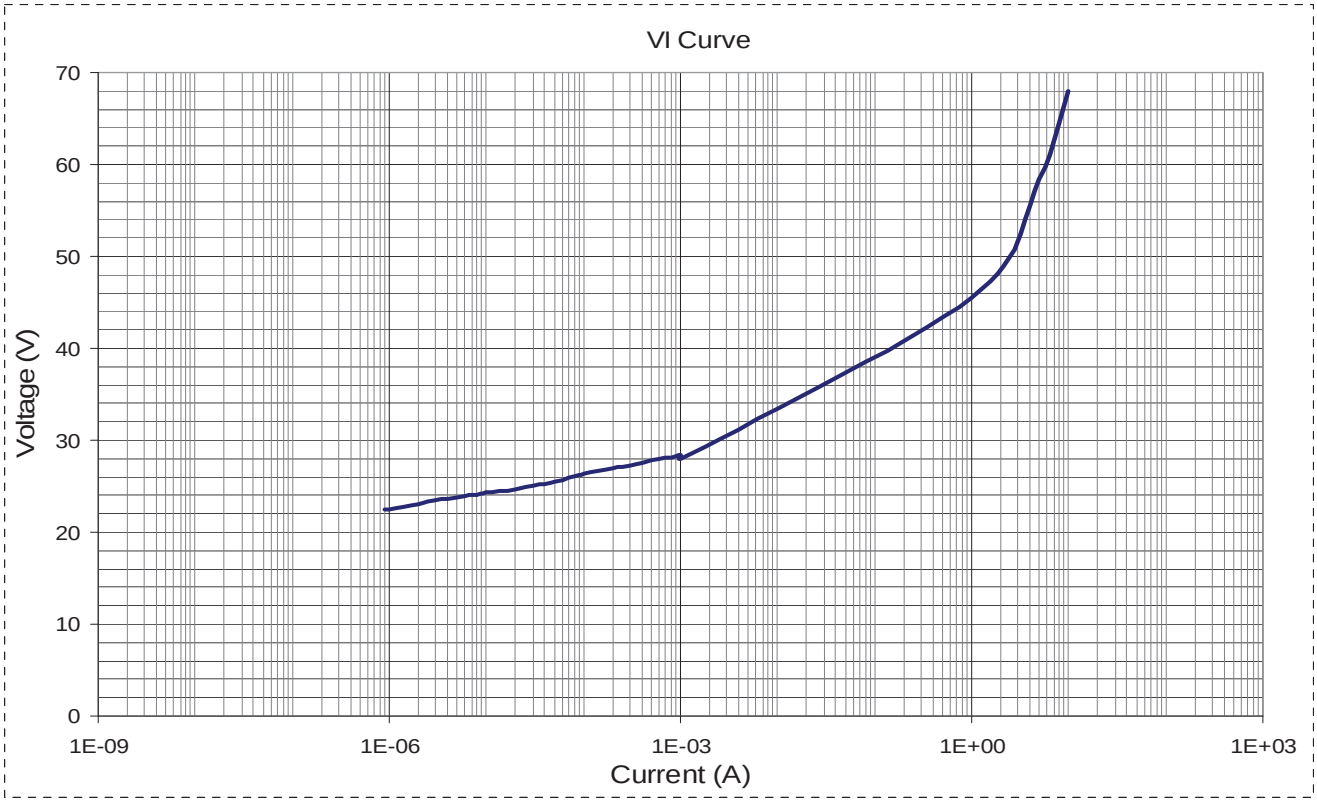
Size (EIA)	0402	0603	0805
L	1.00 ±0.10 (0.040 ±0.004)	1.60±.15 (0.063±0.006)	2.01±.20 (0.079±0.008)
W	0.50 ±0.10 (0.020 ±0.004)	0.80±0.15 (0.032±0.006)	1.25±0.20 (0.049±0.008)
T	0.60 Max. (0.024 Max.)	0.90 Max (0.035 Max.)	1.02 Max (0.040 Max.)
BL	0.25 ±0.15 (0.010 ±0.006)	0.35±0.15 (0.014±0.006)	0.71 Max (0.028 Max)

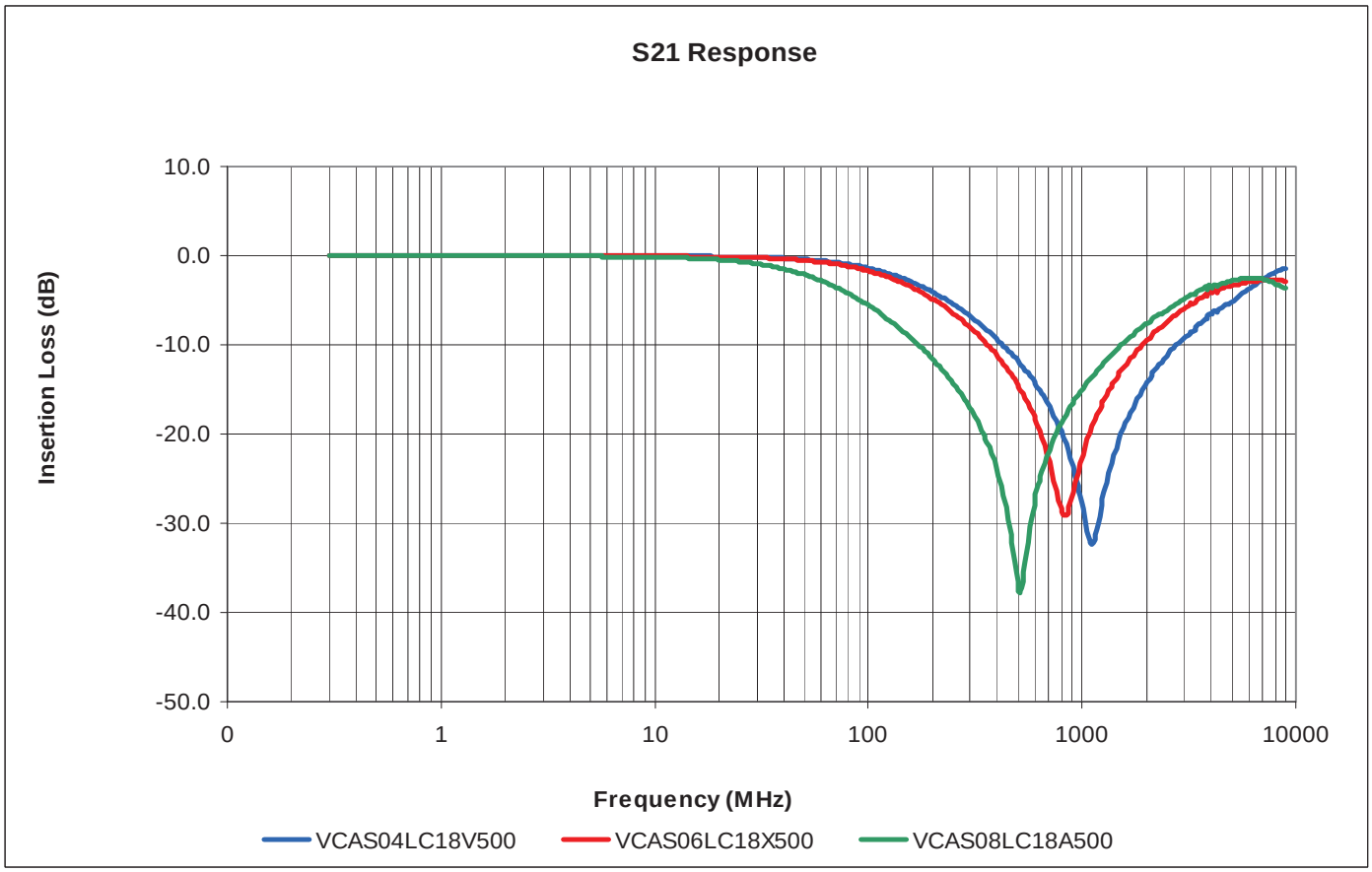
VC	AS	06	LC	18	X	500	R	P
Varistor Chip	Series AS = Automotive	Case 04=0402 06 = 0603 08 = 0805	Low Cap Design	Working Voltage 18=18VDC	Energy Rating A=0.1J V=0.02J X=0.05J	Clamping Voltage 500=50V	Package D=1000 R=4000 T=1000 W=0402 10000	Termination P=Ni/Sn

AVX Part Number	Working Voltage (DC)	Working Voltage (AC)	Clamping Voltage	Test Current For Vc	Maximum Leakage Current	Transient Energy Rating	Peak Current Rating	Typical Capacitance	Case Size	Jump Start	Power Dissipation
VCAS04LC18V500	≤ 18	≤ 14	50	1	10	0.02	15	40	0402	27.5	0.0004
VCAS06LC18X500	≤ 18	≤ 14	50	1	10	0.05	30	50	0603	27.5	0.001
VCAS08LC18A500	≤ 18	≤ 14	50	1	10	0.10	30	80	0805	27.5	0.002

V_W(DC) DC Working Voltage [V]
Vw(AC) AC Working Voltage [V]
V_C Clamping Voltage [V @ 1mA]
I_{VC} Test Current for V_C

I_L Maximum leakage current at the working voltage [µA]
E_t Transient Energy Rating [J, 10x1000µS]
I_P Peak Current Rating [A, 8x20µS]
Cap Typical capacitance [pF] @ frequency specified and $0.5V_{RMS}$


VI Curve
70
60
50
40
30
20
10
0
Voltage (V)
1E-09
1E-06
1E-03
1E+00
1E+03
Current (A)


S21 Response
10.0
0.0
-10.0
-20.0
-30.0
-40.0
-50.0
Insertion Loss (dB)
0
1
10
100
1000
10000
Frequency (MHz)
VCAS04LC18V500
VCAS06LC18X500
VCAS08LC18A500

No.	Item	Requirement	Test Method
1	Operating Temp.	-55°C to +125° C	
2	Appearance/Dimensions	No visible damage Dimensions: see par 6	Visual examination at 10% magnification Dimensions verification by class2 caliper
3	Solderability	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.
4	Solder heat resistance	No mechanical damage. Capacitance: 3 pF Leakage: <100nA	a. Read capacitance and leakage. b. Soak in eutectic solder bath of temperature at 260+/-5°C. for 10+/-1sec. c. Natural cool down to +25°C d. Read capacitance and leakage after 24+/-2 hours.

5	Humidity Life	Capacitance: 3 pF Leakage: <100nA	a. Read capacitance and leakage. b. Leave device in chamber of +85+/-3°C, 85+/5% relative humidity for 1,000± 5hours. c. Read capacitance and leakage after 3-4 hours conditioning at 25+/-5°C
6	Life Test	Capacitance: 3 pF Leakage: <100nA	a. Read capacitance and leakage. b. Apply 100% of working voltage at test temperature of 125+/-4°C for 1,000+48/-0hours. c. Read capacitance and leakage after 24+/-2 hours conditioning at 25+/- 5°C