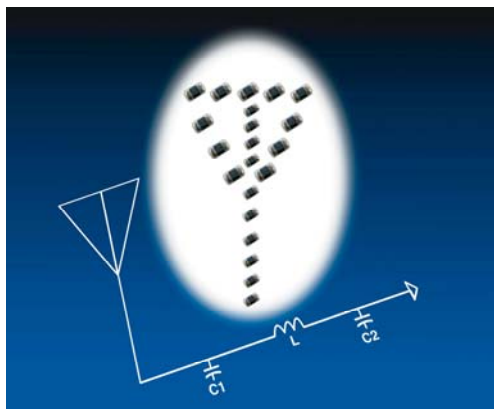
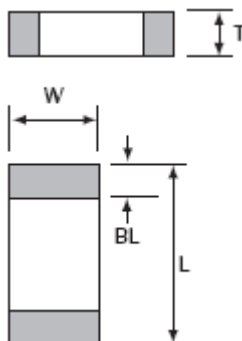




# Automotive AntennaGuard



| Size (EIA) | 0402                         | 0603                       |
|------------|------------------------------|----------------------------|
| <b>L</b>   | 1.00 ±0.10<br>(0.040 ±0.004) | 1.60±.15<br>(0.063±0.006)  |
| <b>W</b>   | 0.50 ±0.10<br>(0.020 ±0.004) | 0.80±0.15<br>(0.032±0.006) |
| <b>T</b>   | 0.60 Max.<br>(0.024 Max.)    | 0.90 Max<br>(0.035 Max.)   |
| <b>BL</b>  | 0.25 ±0.15<br>(0.010 ±0.006) | 0.35±0.15<br>(0.014±0.006) |

| <u>VC</u>        | <u>AS</u>     | <u>06</u>                               | <u>AG</u> | <u>18</u>                      | <u>3R0</u>                         | <u>Y</u>                    | <u>A</u>          | <u>I</u>                                        | <u>1</u>                                     | <u>A</u>               |
|------------------|---------------|-----------------------------------------|-----------|--------------------------------|------------------------------------|-----------------------------|-------------------|-------------------------------------------------|----------------------------------------------|------------------------|
| Varistor<br>Chip | Series<br>AS= | Case<br>04=0402<br>Automotive 06 = 0603 | Type      | Working<br>Voltage<br>18=18VDC | Capacitance<br>3R0=3pF<br>120=12pF | Non-Std<br>Cap Tol<br>Y=Max | Not<br>Applicable | Termination<br>T=Ni/Sn<br>plated<br>1= Pd/Ag/Pt | Reel<br>1=7"<br>3=13"<br>W=7"<br>(0402 only) | Reel<br>A=4k<br>or 10k |

| AVX<br>Part Number | Working<br>Voltage<br>(DC) | Working<br>Voltage<br>(AC) | Maximum<br>Leakage<br>Current | Typical<br>Capacitance | Case<br>Size | Elements | Jump<br>Start |
|--------------------|----------------------------|----------------------------|-------------------------------|------------------------|--------------|----------|---------------|
| VCAS04AG183R0Y     | ≤ 18                       | ≤ 14                       | 0.1                           | 3                      | 0402         | 1        | 27.5          |
| VCAS06AG183R0Y     | ≤ 18                       | ≤ 14                       | 0.1                           | 3                      | 0603         | 1        | 27.5          |
| VCAS06AG18120Y     | ≤ 18                       | ≤ 14                       | 0.1                           | 12                     | 0603         | 1        | 27.5          |

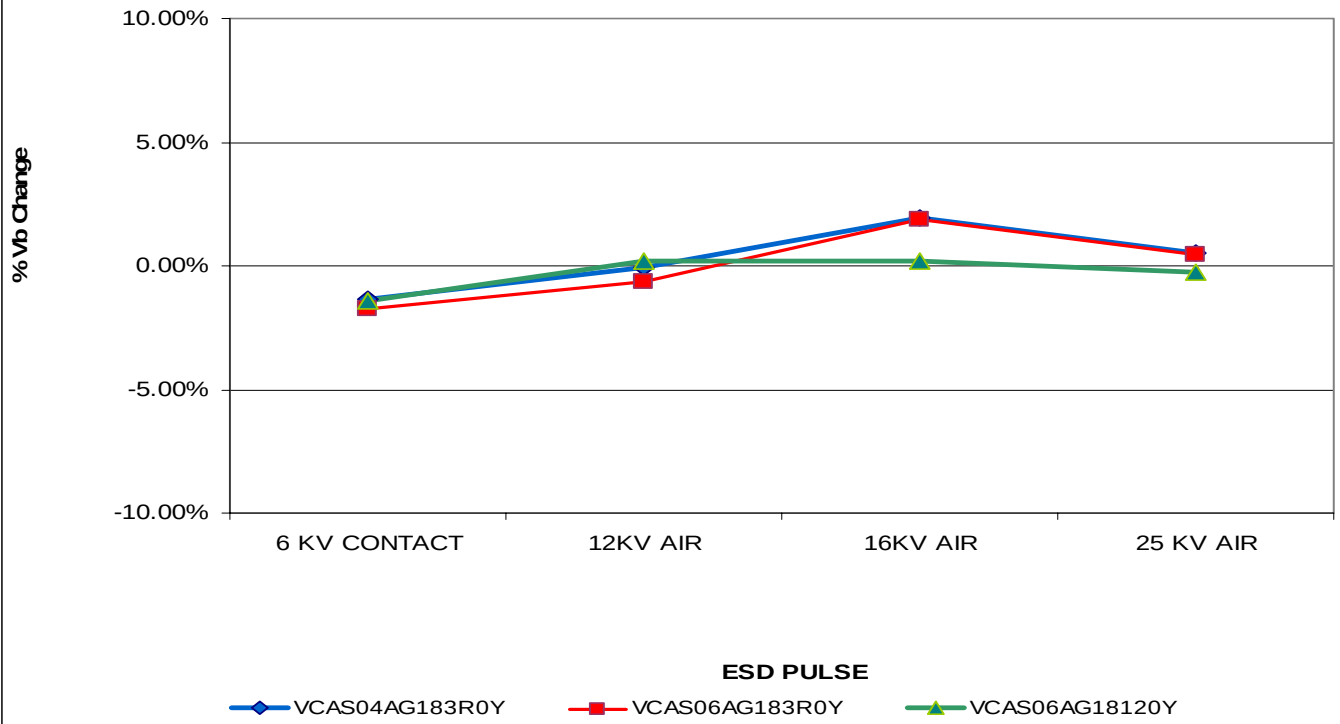
**V<sub>w</sub>(DC)** DC Working Voltage [V]

**V<sub>w</sub>(AC)** AC Working Voltage [V]

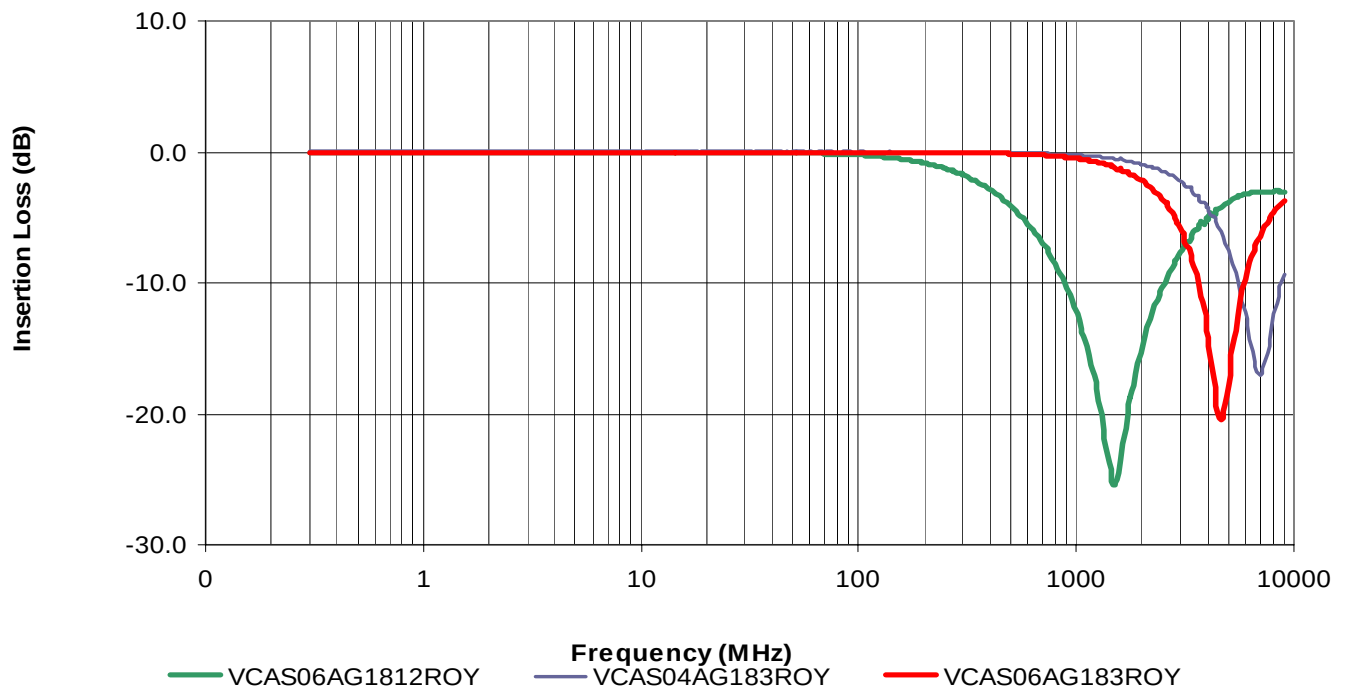
**I<sub>L</sub>** Maximum leakage current at the working voltage [μA]

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

**AEC-Q200 Pulse Test  
AEC-Q200-002**



**S21 Response**



| No. | Item                   | Requirement                                                                        | Test Method                                                                                                                                                                                                 |
|-----|------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Operating Temp.        | -55°C to +125° C                                                                   |                                                                                                                                                                                                             |
| 2   | Appearance/Dimensions  | No visible damage<br>Dimensions: see par 6                                         | Visual examination at 10% magnification<br>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<br>Leakage: <100nA                         | a. Read capacitance and leakage.<br>b. Soak in eutectic solder bath of temperature at 260+/-5°C. for 10+/-1sec.<br>c. Natural cool down to +25°C<br>d. Read capacitance and leakage after 24+/-2 hours.     |
| 5   | Humidity Life          | Capacitance: 3 pF<br>Leakage: <100nA                                               | a. Read capacitance and leakage.<br>b. Leave device in chamber of +85+/-3°C, 85+/-5% relative humidity for 1,000± 5hours.<br>c. Read capacitance and leakage after 3-4 hours conditioning at 25+/-5°C       |
| 6   | Life Test              | Capacitance: 3 pF<br>Leakage: <100nA                                               | a. Read capacitance and leakage.<br>b. Apply 100% of working voltage at test temperature of 125+/-4°C for 1,000+48/-0hours.<br>c. Read capacitance and leakage after 24+/-2 hours conditioning at 25+/- 5°C |