



# THE DATASHEET OF SA102C221MAA

# AXIAL LEADS

## SpinGuard®/SA Series

### GENERAL INFORMATION

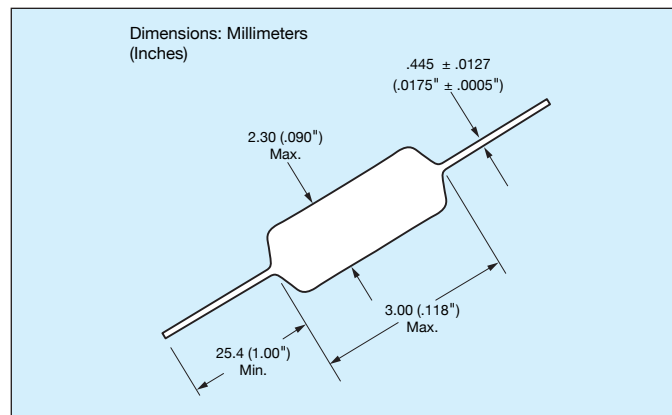
#### SA Series

#### Conformally Coated Axial Leaded MLC

**Temperature Coefficients:** COG (NP0), X7R, X5R, Z5U  
10, 50, 100, 200 Volts

**Case Material:** Epoxy (Flame Retardant to UL Bulletin 492, Par. 280)

**Lead Material:** Solderable



### HOW TO ORDER

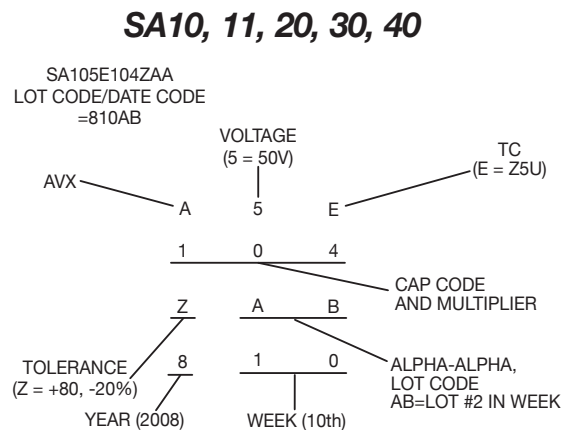
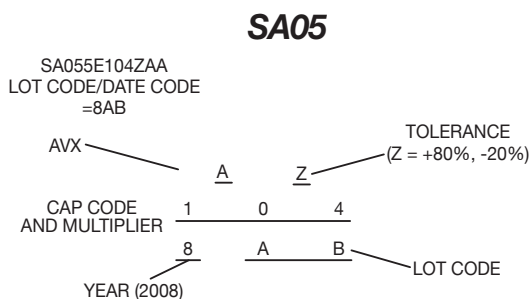
| SA10                                         | 5                                          | E                                              | 104                                                                                                                                                                                                                                    | Z                                                                                                                                                                                                     | A                   | R                                                                                                  |
|----------------------------------------------|--------------------------------------------|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------------------------------------------------------------------------------|
| <b>Conformal Axial Size</b>                  | <b>Voltage</b>                             | <b>Dielectric</b>                              | <b>Capacitance</b>                                                                                                                                                                                                                     | <b>Capacitance Tolerance</b>                                                                                                                                                                          | <b>Failure Rate</b> | <b>Leads</b>                                                                                       |
| SA05<br>SA10<br>SA11<br>SA20<br>SA30<br>SA40 | Z = 10V<br>5 = 50V<br>1 = 100V<br>2 = 200V | A = COG (NP0)<br>C = X7R<br>D = X5R<br>E = Z5U | First two digits are the significant figures of capacitance. Third digit indicates the additional number of zeros. For example, order 100,000 pF as 104. (For values below 10pF use "R" in place of decimal point, e.g., 1R4 = 1.4pF.) | COG (NP0):<br>C = ±.25pF<br>D = ±.5pF<br>F = ±1%<br>G = ±2%<br>J = ±5%<br>K = ±10%<br>X7R:<br>J = ±5%<br>K = ±10%<br>M = ±20%<br>X5R:<br>K = ±10%<br>M = ±20%<br>Z5U:<br>M = ±20%<br>Z = +80%<br>-20% | A = Not Applicable  | Standard (Solderable)<br>R = RoHS Compliant<br>A = Standard<br>Solderable<br>(Also RoHS Compliant) |



Please select correct termination style.

### MARKING (EXAMPLE)

SpinGuard marking includes full date code/lot code identification. A first in the industry, this format provides complete traceability to all manufacturing processes involving the basic chip and final assembly. Total Shipment traceability is also provided.



### PACKAGING REQUIREMENTS

- A = Standard Reels (see Page 49)
- B = 1000 piece reels (distributors only, tight tolerance only)
- C = Ammo Pack (see Page 49)
- D thru J = See Special Lead Configurations (Page 41)
- M = 26mm tape and reel
- N = 26mm ammo pack
- R = RoHS, Standard reels (See page 49)



# AXIAL LEADS/

## SpinGuard® - SA Series - X7R Dielectric



### SIZE AND CAPACITANCE SPECIFICATIONS

Dimensions: Millimeters (Inches)



| Style          |                      | SA05             |     |    | SA10             |     |    | SA11             |    | SA20             |    | SA30             |    | SA40             |    |
|----------------|----------------------|------------------|-----|----|------------------|-----|----|------------------|----|------------------|----|------------------|----|------------------|----|
| Length (L)     |                      | 3.00<br>(.118")  |     |    | 4.32<br>(.170")  |     |    | 4.32<br>(.170")  |    | 6.60<br>(.260")  |    | 7.37<br>(.290")  |    | 10.16<br>(.400") |    |
| Diameter (D)   |                      | 2.30<br>(.090")  |     |    | 2.54<br>(.100")  |     |    | 3.05<br>(.120")  |    | 2.54<br>(.100")  |    | 3.81<br>(.150")  |    | 3.81<br>(.150")  |    |
| Lead Diameter  |                      | .445<br>(.0175") |     |    | .445<br>(.0175") |     |    | .445<br>(.0175") |    | .445<br>(.0175") |    | .445<br>(.0175") |    | .445<br>(.0175") |    |
| Lead Length    |                      | 25.4<br>(1.00")  |     |    | 25.4<br>(1.00")  |     |    | 25.4<br>(1.00")  |    | 25.4<br>(1.00")  |    | 25.4<br>(1.00")  |    | 25.4<br>(1.00")  |    |
| Cap.<br>in. pF | Typical<br>Part Nos. | WVDC             |     |    | WVDC             |     |    | WVDC             |    | WVDC             |    | WVDC             |    | WVDC             |    |
|                |                      | 200              | 100 | 50 | 200              | 100 | 50 | 100              | 50 | 100              | 50 | 100              | 50 | 100              | 50 |
| 220            | SA102C221KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 270            | SA102C271KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 330            | SA102C331KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 390            | SA102C391KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 470            | SA102C471KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 560            | SA101C561KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 680            | SA101C681KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 820            | SA101C821KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 1000           | SA101C102KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 1200           | SA101C122KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 1500           | SA101C152KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 1800           | SA101C182KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 2200           | SA101C222KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 2700           | SA101C272KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 3300           | SA101C332KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 3900           | SA101C392KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 4700           | SA101C472KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 5600           | SA101C562KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 6800           | SA101C682KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 8200           | SA105C822KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 10,000         | SA105C103KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 12,000         | SA105C123KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 15,000         | SA105C153KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 18,000         | SA105C183KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 22,000         | SA105C223KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 27,000         | SA105C273KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 33,000         | SA105C333KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 39,000         | SA105C393KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 47,000         | SA105C473KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 56,000         | SA115C563KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 68,000         | SA115C683KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 82,000         | SA115C823KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 100,000        | SA115C104KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 120,000        | SA305C124KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 150,000        | SA305C154KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 180,000        | SA305C184KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 220,000        | SA305C224KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 270,000        | SA305C274KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 330,000        | SA305C334KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 470,000        | SA405C474KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |
| 1,000,000      | SA305C105KAR         |                  |     |    |                  |     |    |                  |    |                  |    |                  |    |                  |    |

For other tolerances see Part No. Codes  
For other voltages see Part No. Codes  
Style

= Industry preferred values



## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- ⊖ View [SA102C221MAA](#) on WIN SOURCE
- ⊖ [AVX Corp/Kyocera Corp](#) Information

## Optimize Your Supply Chain with WIN SOURCE Solutions

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- ✓ Cost Control Management
- ✓ Shortage Management
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- ✓ Excess Inventory Management