

## Dipped Axial Multilayer Ceramic Capacitors for 50 - 100 Vdc



**RoHS**  
COMPLIANT

**DIMENSIONS**



| <b>CAPACITOR DIMENSIONS AND WEIGHT</b> |                                  |                                   |            |
|--|----------------------------------|-----------------------------------|------------|
| SIZE                                   | Lb <sub>max</sub> <sup>(1)</sup> | Ø D <sub>max</sub> <sup>(1)</sup> | WEIGHT (g) |
| 15                                     | 3.8<br>(0.150)                   | 2.5<br>(0.100)                    | ≈ 0.14     |
| 20                                     | 5.0<br>(0.200)                   | 3.0<br>(0.120)                    | ≈ 0.15     |

**Note**

1. Dimensions between the parentheses are in inches

| <b>QUICK REFERENCE DATA</b> |               |                  |                  |
|-----------------------------|---------------|------------------|------------------|
| DESCRIPTION                 | VALUE         |                  |                  |
| Capacitance range           | 10 to 5600 pF | 100 pF to 1.0 µF | 0.1 µF to 1.0 µF |
| Rated DC voltage            | 50 V    100 V | 50 V    100 V    | 50 V    100 V    |
| Tolerance on capacitance    | ± 5 %, ± 10 % | ± 10 %, ± 20 %   | + 80 /- 20 %     |
| Dielectric Code             | C0G (NP0)     | X7R              | Y5V              |

| <b>ORDERING INFORMATION</b>                     |   |   |  |                   |   |                    |                           |
|---|---|---|--|-------------------|---|--------------------|---------------------------|
| A   | 103   | K   | 15   | X7R               | F   | 5                  | TAA                       |
| PRODUCT TYPE                                    | CAPACITANCE CODE  | CAP. TOLERANCE  | SIZE CODE                                      | TEMP. CHAR.       | RATED VOLTAGE                                     | LEAD DIA.          | PACKAGING                 |
| A = Mono-Axial                                  | Two significant digits followed by the number of zeros.<br>For example:<br>473 = 47000 pF | J = ± 5 %<br>K = ± 10 %<br>M = ± 20 %<br>Z = + 80 /- 20 % | 15 = 3.8 (0.15") max.<br>20 = 5.0 (0.20") max. | C0G<br>X7R<br>Y5V | F = 50 V <sub>DC</sub><br>H = 100 V <sub>DC</sub> | 5 = 0.5 mm (0.20") | TAA = T & R<br>UAA = AMMO |
| <b>Ordering Example: A-103-K-15-X7R-F-5-TAA</b> |   |   |  |                   |   |                    |                           |



**CAPACITANCE RANGE CHART  
C0G (NP0) DIELECTRIC**

| SIZE          |      | 15 |     | 20 |     |
|---------------|------|----|-----|----|-----|
| RATED VOLTAGE |      | 50 | 100 | 50 | 100 |
| VALUE         | CODE |    |     |    |     |
| 10 pF         | 100  |    |     |    |     |
| 12 pF         | 120  |    |     |    |     |
| 15 pF         | 150  |    |     |    |     |
| 18 pF         | 180  |    |     |    |     |
| 22 pF         | 220  |    |     |    |     |
| 27 pF         | 270  |    |     |    |     |
| 33 pF         | 330  |    |     |    |     |
| 39 pF         | 390  |    |     |    |     |
| 47 pF         | 470  |    |     |    |     |
| 56 pF         | 560  |    |     |    |     |
| 68 pF         | 680  |    |     |    |     |
| 82 pF         | 820  |    |     |    |     |
| 100 pF        | 101  |    |     |    |     |
| 120 pF        | 121  |    |     |    |     |
| 150 pF        | 151  |    |     |    |     |
| 180 pF        | 181  |    |     |    |     |
| 220 pF        | 221  |    |     |    |     |
| 270 pF        | 271  |    |     |    |     |
| 330 pF        | 331  |    |     |    |     |
| 390 pF        | 391  |    |     |    |     |
| 470 pF        | 471  |    |     |    |     |
| 560 pF        | 561  |    |     |    |     |
| 680 pF        | 681  |    |     |    |     |
| 820 pF        | 821  |    |     |    |     |
| 1000 pF       | 102  |    |     |    |     |
| 1200 pF       | 122  |    |     |    |     |
| 1500 pF       | 152  |    |     |    |     |
| 1800 pF       | 182  |    |     |    |     |
| 2200 pF       | 222  |    |     |    |     |
| 2700 pF       | 272  |    |     |    |     |
| 3300 pF       | 332  |    |     |    |     |
| 3900 pF       | 392  |    |     |    |     |
| 4700 pF       | 472  |    |     |    |     |
| 5600 pF       | 562  |    |     |    |     |

**X7R DIELECTRIC**

| SIZE          |      | 15 |     | 20 |     |
|---------------|------|----|-----|----|-----|
| RATED VOLTAGE |      | 50 | 100 | 50 | 100 |
| VALUE         | CODE |    |     |    |     |
| 100 pF        | 101  |    |     |    |     |
| 120 pF        | 121  |    |     |    |     |
| 150 pF        | 151  |    |     |    |     |
| 180 pF        | 181  |    |     |    |     |
| 220 pF        | 221  |    |     |    |     |
| 270 pF        | 271  |    |     |    |     |
| 330 pF        | 331  |    |     |    |     |
| 390 pF        | 391  |    |     |    |     |
| 470 pF        | 471  |    |     |    |     |
| 560 pF        | 561  |    |     |    |     |
| 680 pF        | 681  |    |     |    |     |
| 820 pF        | 821  |    |     |    |     |
| 1000 pF       | 102  |    |     |    |     |
| 1200 pF       | 122  |    |     |    |     |
| 1500 pF       | 152  |    |     |    |     |
| 1800 pF       | 182  |    |     |    |     |
| 2200 pF       | 222  |    |     |    |     |
| 2700 pF       | 272  |    |     |    |     |
| 3300 pF       | 332  |    |     |    |     |
| 3900 pF       | 392  |    |     |    |     |
| 4700 pF       | 472  |    |     |    |     |
| 5600 pF       | 562  |    |     |    |     |
| 6800 pF       | 682  |    |     |    |     |
| 8200 pF       | 822  |    |     |    |     |
| 0.01 μF       | 103  |    |     |    |     |
| 0.012 μF      | 123  |    |     |    |     |
| 0.015 μF      | 153  |    |     |    |     |
| 0.018 μF      | 183  |    |     |    |     |
| 0.022 μF      | 223  |    |     |    |     |
| 0.027 μF      | 273  |    |     |    |     |
| 0.033 μF      | 333  |    |     |    |     |
| 0.039 μF      | 393  |    |     |    |     |
| 0.047 μF      | 473  |    |     |    |     |
| 0.056 μF      | 563  |    |     |    |     |
| 0.068 μF      | 683  |    |     |    |     |
| 0.082 μF      | 823  |    |     |    |     |
| 0.10 μF       | 104  |    |     |    |     |
| 0.12 μF       | 124  |    |     |    |     |
| 0.15 μF       | 154  |    |     |    |     |
| 0.22 μF       | 224  |    |     |    |     |
| 0.33 μF       | 334  |    |     |    |     |
| 0.47 μF       | 474  |    |     |    |     |
| 0.68 μF       | 684  |    |     |    |     |
| 1.0 μF        | 105  |    |     |    |     |

**Y5V DIELECTRIC**

| SIZE          |      | 15 |     | 20 |     |
|---------------|------|----|-----|----|-----|
| RATED VOLTAGE |      | 50 | 100 | 50 | 100 |
| VALUE         | CODE |    |     |    |     |
| 0.01 μF       | 103  |    |     |    |     |
| 0.015 μF      | 153  |    |     |    |     |
| 0.022 μF      | 223  |    |     |    |     |
| 0.033 μF      | 333  |    |     |    |     |
| 0.047 μF      | 473  |    |     |    |     |
| 0.068 μF      | 683  |    |     |    |     |
| 0.10 μF       | 104  |    |     |    |     |
| 0.15 μF       | 154  |    |     |    |     |
| 0.22 μF       | 224  |    |     |    |     |
| 0.33 μF       | 334  |    |     |    |     |
| 0.47 μF       | 474  |    |     |    |     |
| 0.68 μF       | 684  |    |     |    |     |
| 1.0 μF        | 105  |    |     |    |     |



## PART NUMBER LISTING

| <b>MONO-AXIAL Y5V - 50 VDC CLEAR TEXT CODE</b> |                     |                        |           |
|--|---------------------|------------------------|-----------|
| CAP (pF)                                       | RATED VOLTAGE (Vdc) | + 80 /- 20 % TOLERANCE | PACKAGING |
| 10000  | 50 Vdc              | A103Z15Y5VF5TAA        | REEL      |
| 10000  |                     | A103Z15Y5VF5UAA        | AMMO      |
| 15000  |                     | A153Z15Y5VF5TAA        | REEL      |
| 15000  |                     | A153Z15Y5VF5UAA        | AMMO      |
| 22000  |                     | A223Z15Y5VF5TAA        | REEL      |
| 22000  |                     | A223Z15Y5VF5UAA        | AMMO      |
| 33000  |                     | A333Z15Y5VF5TAA        | REEL      |
| 33000  |                     | A333Z15Y5VF5UAA        | AMMO      |
| 47000  |                     | A473Z15Y5VF5TAA        | REEL      |
| 47000  |                     | A473Z15Y5VF5UAA        | AMMO      |
| 68000  |                     | A683Z15Y5VF5TAA        | REEL      |
| 68000  |                     | A683Z15Y5VF5UAA        | AMMO      |
| 100000   |                     | A104Z15Y5VF5TAA        | REEL      |
| 100000   |                     | A104Z15Y5VF5UAA        | AMMO      |
| 150000   |                     | A154Z15Y5VF5TAA        | REEL      |
| 150000   |                     | A154Z15Y5VF5UAA        | AMMO      |
| 220000   |                     | A224Z15Y5VF5TAA        | REEL      |
| 220000   |                     | A224Z15Y5VF5UAA        | AMMO      |
| 330000   |                     | A334Z15Y5VF5TAA        | REEL      |
| 330000   |                     | A334Z15Y5VF5UAA        | AMMO      |
| 470000   | A474Z20Y5VF5TAA     | REEL                   |           |
| 470000   | A474Z20Y5VF5UAA     | AMMO                   |           |
| 680000   | A684Z20Y5VF5TAA     | REEL                   |           |
| 680000   | A684Z20Y5VF5UAA     | AMMO                   |           |
| 1000000  | A105Z20Y5VF5TAA     | REEL                   |           |
| 1000000  | A105Z20Y5VF5UAA     | AMMO                   |           |

| <b>MONO-AXIAL X7R - 50 VDC CLEAR TEXT CODE</b> |                     |                 |                 |           |
|--|---------------------|-----------------|-----------------|-----------|
| CAP (pF)                                       | RATED VOLTAGE (Vdc) | 10 % TOLERANCE  | 20 % TOLERANCE  | PACKAGING |
| 100  | 50 Vdc              | A101K15X7RF5TAA | A101M15X7RF5TAA | REEL      |
| 100  |                     | A101K15X7RF5UAA | A101M15X7RF5UAA | AMMO      |
| 120  |                     | A121K15X7RF5TAA | A121M15X7RF5TAA | REEL      |
| 120  |                     | A121K15X7RF5UAA | A121M15X7RF5UAA | AMMO      |
| 150  |                     | A151K15X7RF5TAA | A151M15X7RF5TAA | REEL      |
| 150  |                     | A151K15X7RF5UAA | A151M15X7RF5UAA | AMMO      |
| 180  |                     | A181K15X7RF5TAA | A181M15X7RF5TAA | REEL      |
| 180  |                     | A181K15X7RF5UAA | A181M15X7RF5UAA | AMMO      |
| 220  |                     | A221K15X7RF5TAA | A221M15X7RF5TAA | REEL      |
| 220  |                     | A221K15X7RF5UAA | A221M15X7RF5UAA | AMMO      |
| 270  |                     | A271K15X7RF5TAA | A271M15X7RF5TAA | REEL      |
| 270  |                     | A271K15X7RF5UAA | A271M15X7RF5UAA | AMMO      |
| 330  |                     | A331K15X7RF5TAA | A331M15X7RF5TAA | REEL      |
| 330  |                     | A331K15X7RF5UAA | A331M15X7RF5UAA | AMMO      |
| 390  |                     | A391K15X7RF5TAA | A391M15X7RF5TAA | REEL      |
| 390  |                     | A391K15X7RF5UAA | A391M15X7RF5UAA | AMMO      |
| 470  |                     | A471K15X7RF5TAA | A471M15X7RF5TAA | REEL      |
| 470  |                     | A471K15X7RF5UAA | A471M15X7RF5UAA | AMMO      |
| 560  |                     | A561K15X7RF5TAA | A561M15X7RF5TAA | REEL      |
| 560  |                     | A561K15X7RF5UAA | A561M15X7RF5UAA | AMMO      |
| 680  | A681K15X7RF5TAA     | A681M15X7RF5TAA | REEL            |           |
| 680  | A681K15X7RF5UAA     | A681M15X7RF5UAA | AMMO            |           |



Dipped Axial Multilayer Ceramic Capacitors  
for 50 - 100 Vdc

| <b>MONO-AXIAL X7R - 50 VDC CLEAR TEXT CODE</b> |                            |                       |                       |                  |
|--|----------------------------|-----------------------|-----------------------|------------------|
| <b>CAP (pF)</b>                                | <b>RATED VOLTAGE (Vdc)</b> | <b>10 % TOLERANCE</b> | <b>20 % TOLERANCE</b> | <b>PACKAGING</b> |
| 820  | 50 Vdc                     | A821K15X7RF5TAA       | A821M15X7RF5TAA       | REEL             |
| 820  |                            | A821K15X7RF5UAA       | A821M15X7RF5UAA       | AMMO             |
| 1000   |                            | A102K15X7RF5TAA       | A102M15X7RF5TAA       | REEL             |
| 1000   |                            | A102K15X7RF5UAA       | A102M15X7RF5UAA       | AMMO             |
| 1200   |                            | A122K15X7RF5TAA       | A122M15X7RF5TAA       | REEL             |
| 1200   |                            | A122K15X7RF5UAA       | A122M15X7RF5UAA       | AMMO             |
| 1500   |                            | A152K15X7RF5TAA       | A152M15X7RF5TAA       | REEL             |
| 1500   |                            | A152K15X7RF5UAA       | A152M15X7RF5UAA       | AMMO             |
| 1800   |                            | A182K15X7RF5TAA       | A182M15X7RF5TAA       | REEL             |
| 1800   |                            | A182K15X7RF5UAA       | A182M15X7RF5UAA       | AMMO             |
| 2200   |                            | A222K15X7RF5TAA       | A222M15X7RF5TAA       | REEL             |
| 2200   |                            | A222K15X7RF5UAA       | A222M15X7RF5UAA       | AMMO             |
| 2700   |                            | A272K15X7RF5TAA       | A272M15X7RF5TAA       | REEL             |
| 2700   |                            | A272K15X7RF5UAA       | A272M15X7RF5UAA       | AMMO             |
| 3300   |                            | A332K15X7RF5TAA       | A332M15X7RF5TAA       | REEL             |
| 3300   |                            | A332K15X7RF5UAA       | A332M15X7RF5UAA       | AMMO             |
| 3900   |                            | A392K15X7RF5TAA       | A392M15X7RF5TAA       | REEL             |
| 3900   |                            | A392K15X7RF5UAA       | A392M15X7RF5UAA       | AMMO             |
| 4700   |                            | A472K15X7RF5TAA       | A472M15X7RF5TAA       | REEL             |
| 4700   |                            | A472K15X7RF5UAA       | A472M15X7RF5UAA       | AMMO             |
| 5600   |                            | A562K15X7RF5TAA       | A562M15X7RF5TAA       | REEL             |
| 5600   |                            | A562K15X7RF5UAA       | A562M15X7RF5UAA       | AMMO             |
| 6800   |                            | A682K15X7RF5TAA       | A682M15X7RF5TAA       | REEL             |
| 6800   |                            | A682K15X7RF5UAA       | A682M15X7RF5UAA       | AMMO             |
| 8200   |                            | A822K15X7RF5TAA       | A822M15X7RF5TAA       | REEL             |
| 8200   |                            | A822K15X7RF5UAA       | A822M15X7RF5UAA       | AMMO             |
| 10000  |                            | A103K15X7RF5TAA       | A103M15X7RF5TAA       | REEL             |
| 10000  |                            | A103K15X7RF5UAA       | A103M15X7RF5UAA       | AMMO             |
| 12000  |                            | A123K15X7RF5TAA       | A123M15X7RF5TAA       | REEL             |
| 12000  |                            | A123K15X7RF5UAA       | A123M15X7RF5UAA       | AMMO             |
| 15000  |                            | A153K15X7RF5TAA       | A153M15X7RF5TAA       | REEL             |
| 15000  |                            | A153K15X7RF5UAA       | A153M15X7RF5UAA       | AMMO             |
| 18000  |                            | A183K15X7RF5TAA       | A183M15X7RF5TAA       | REEL             |
| 18000  |                            | A183K15X7RF5UAA       | A183M15X7RF5UAA       | AMMO             |
| 22000  |                            | A223K15X7RF5TAA       | A223M15X7RF5TAA       | REEL             |
| 22000  |                            | A223K15X7RF5UAA       | A223M15X7RF5UAA       | AMMO             |
| 27000  |                            | A273K15X7RF5TAA       | A273M15X7RF5TAA       | REEL             |
| 27000  |                            | A273K15X7RF5UAA       | A273M15X7RF5UAA       | AMMO             |
| 33000  |                            | A333K15X7RF5TAA       | A333M15X7RF5TAA       | REEL             |
| 33000  |                            | A333K15X7RF5UAA       | A333M15X7RF5UAA       | AMMO             |
| 39000  | A393K15X7RF5TAA            | A393M15X7RF5TAA       | REEL                  |                  |
| 39000  | A393K15X7RF5UAA            | A393M15X7RF5UAA       | AMMO                  |                  |
| 47000  | A473K15X7RF5TAA            | A473M15X7RF5TAA       | REEL                  |                  |
| 47000  | A473K15X7RF5UAA            | A473M15X7RF5UAA       | AMMO                  |                  |
| 56000  | A563K15X7RF5TAA            | A563M15X7RF5TAA       | REEL                  |                  |
| 56000  | A563K15X7RF5UAA            | A563M15X7RF5UAA       | AMMO                  |                  |
| 68000  | A683K15X7RF5TAA            | A683M15X7RF5TAA       | REEL                  |                  |
| 68000  | A683K15X7RF5UAA            | A683M15X7RF5UAA       | AMMO                  |                  |
| 82000  | A823K15X7RF5TAA            | A823M15X7RF5TAA       | REEL                  |                  |
| 82000  | A823K15X7RF5UAA            | A823M15X7RF5UAA       | AMMO                  |                  |
| 100000   | A104K15X7RF5TAA            | A104M15X7RF5TAA       | REEL                  |                  |
| 100000   | A104K15X7RF5UAA            | A104M15X7RF5UAA       | AMMO                  |                  |
| 120000   | A124K20X7RF5TAA            | A124M20X7RF5TAA       | REEL                  |                  |

| <b>MONO-AXIAL X7R - 50 VDC CLEAR TEXT CODE</b> |                     |                 |                 |           |
|--|---------------------|-----------------|-----------------|-----------|
| CAP (pF)                                       | RATED VOLTAGE (Vdc) | 10 % TOLERANCE  | 20 % TOLERANCE  | PACKAGING |
| 120000   | 50 Vdc              | A124K20X7RF5UAA | A124M20X7RF5UAA | AMMO      |
| 150000   |                     | A154K20X7RF5TAA | A154M20X7RF5TAA | REEL      |
| 150000   |                     | A154K20X7RF5UAA | A154M20X7RF5UAA | AMMO      |
| 220000   |                     | A224K20X7RF5TAA | A224M20X7RF5TAA | REEL      |
| 220000   |                     | A224K20X7RF5UAA | A224M20X7RF5UAA | AMMO      |
| 330000   |                     | A334K20X7RF5TAA | A334M20X7RF5TAA | REEL      |
| 330000   |                     | A334K20X7RF5UAA | A334M20X7RF5UAA | AMMO      |
| 470000   |                     | A474K20X7RF5TAA | A474M20X7RF5TAA | REEL      |
| 470000   |                     | A474K20X7RF5UAA | A474M20X7RF5UAA | AMMO      |
| 680000   |                     | A684K20X7RF5TAA | A684M20X7RF5TAA | REEL      |
| 680000   |                     | A684K20X7RF5UAA | A684M20X7RF5UAA | AMMO      |
| 1000000  |                     | A105K20X7RF5TAA | A105M20X7RF5TAA | REEL      |
| 1000000  |                     | A105K20X7RF5UAA | A105M20X7RF5UAA | AMMO      |

| <b>MONO-AXIAL COG - 50 VDC CLEAR TEXT CODE</b> |                     |                 |                 |           |
|--|---------------------|-----------------|-----------------|-----------|
| CAP (pF)                                       | RATED VOLTAGE (VDC) | 5 % TOLERANCE   | 10 % TOLERANCE  | PACKAGING |
| 10   | 50 Vdc              | A100J15C0GF5TAA | A100K15C0GF5TAA | REEL      |
| 10   |                     | A100J15C0GF5UAA | A100K15C0GF5UAA | AMMO      |
| 12   |                     | A120J15C0GF5TAA | A120K15C0GF5TAA | REEL      |
| 12   |                     | A120J15C0GF5UAA | A120K15C0GF5UAA | AMMO      |
| 15   |                     | A150J15C0GF5TAA | A150K15C0GF5TAA | REEL      |
| 15   |                     | A150J15C0GF5UAA | A150K15C0GF5UAA | AMMO      |
| 18   |                     | A180J15C0GF5TAA | A180K15C0GF5TAA | REEL      |
| 18   |                     | A180J15C0GF5UAA | A180K15C0GF5UAA | AMMO      |
| 22   |                     | A220J15C0GF5TAA | A220K15C0GF5TAA | REEL      |
| 22   |                     | A220J15C0GF5UAA | A220K15C0GF5UAA | AMMO      |
| 27   |                     | A270J15C0GF5TAA | A270K15C0GF5TAA | REEL      |
| 27   |                     | A270J15C0GF5UAA | A270K15C0GF5UAA | AMMO      |
| 33   |                     | A330J15C0GF5TAA | A330K15C0GF5TAA | REEL      |
| 33   |                     | A330J15C0GF5UAA | A330K15C0GF5UAA | AMMO      |
| 39   |                     | A390J15C0GF5TAA | A390K15C0GF5TAA | REEL      |
| 39   |                     | A390J15C0GF5UAA | A390K15C0GF5UAA | AMMO      |
| 47   |                     | A470J15C0GF5TAA | A470K15C0GF5TAA | REEL      |
| 47   |                     | A470J15C0GF5UAA | A470K15C0GF5UAA | AMMO      |
| 56   |                     | A560J15C0GF5TAA | A560K15C0GF5TAA | REEL      |
| 56   |                     | A560J15C0GF5UAA | A560K15C0GF5UAA | AMMO      |
| 68   |                     | A680J15C0GF5TAA | A680K15C0GF5TAA | REEL      |
| 68   |                     | A680J15C0GF5UAA | A680K15C0GF5UAA | AMMO      |
| 82   |                     | A820J15C0GF5TAA | A820K15C0GF5TAA | REEL      |
| 82   |                     | A820J15C0GF5UAA | A820K15C0GF5UAA | AMMO      |
| 100  |                     | A101J15C0GF5TAA | A101K15C0GF5TAA | REEL      |
| 100  |                     | A101J15C0GF5UAA | A101K15C0GF5UAA | AMMO      |
| 120  |                     | A121J15C0GF5TAA | A121K15C0GF5TAA | REEL      |
| 120  |                     | A121J15C0GF5UAA | A121K15C0GF5UAA | AMMO      |
| 150  |                     | A151J15C0GF5TAA | A151K15C0GF5TAA | REEL      |
| 150  |                     | A151J15C0GF5UAA | A151K15C0GF5UAA | AMMO      |
| 180  |                     | A181J15C0GF5TAA | A181K15C0GF5TAA | REEL      |
| 180  |                     | A181J15C0GF5UAA | A181K15C0GF5UAA | AMMO      |
| 220  |                     | A221J15C0GF5TAA | A221K15C0GF5TAA | REEL      |
| 220  | A221J15C0GF5UAA     | A221K15C0GF5UAA | AMMO            |           |
| 270  | A271J15C0GF5TAA     | A271K15C0GF5TAA | REEL            |           |
| 270  | A271J15C0GF5UAA     | A271K15C0GF5UAA | AMMO            |           |
| 330  | A331J15C0GF5TAA     | A331K15C0GF5TAA | REEL            |           |



**Dipped Axial Multilayer Ceramic Capacitors  
for 50 - 100 Vdc**

| <b>MONO-AXIAL COG - 50 VDC CLEAR TEXT CODE</b> |                            |                      |                       |                  |
|--|----------------------------|----------------------|-----------------------|------------------|
| <b>CAP (pF)</b>                                | <b>RATED VOLTAGE (Vdc)</b> | <b>5 % TOLERANCE</b> | <b>10 % TOLERANCE</b> | <b>PACKAGING</b> |
| 330  | 50 Vdc                     | A331J15C0GF5UAA      | A331K15C0GF5UAA       | AMMO             |
| 390  |                            | A391J15C0GF5TAA      | A391K15C0GF5TAA       | REEL             |
| 390  |                            | A391J15C0GF5UAA      | A391K15C0GF5UAA       | AMMO             |
| 470  |                            | A471J15C0GF5TAA      | A471K15C0GF5TAA       | REEL             |
| 470  |                            | A471J15C0GF5UAA      | A471K15C0GF5UAA       | AMMO             |
| 560  |                            | A561J15C0GF5TAA      | A561K15C0GF5TAA       | REEL             |
| 560  |                            | A561J15C0GF5UAA      | A561K15C0GF5UAA       | AMMO             |
| 680  |                            | A681J15C0GF5TAA      | A681K15C0GF5TAA       | REEL             |
| 680  |                            | A681J15C0GF5UAA      | A681K15C0GF5UAA       | AMMO             |
| 820  |                            | A821J15C0GF5TAA      | A821K15C0GF5TAA       | REEL             |
| 820  |                            | A821J15C0GF5UAA      | A821K15C0GF5UAA       | AMMO             |
| 1000   |                            | A102J15C0GF5TAA      | A102K15C0GF5TAA       | REEL             |
| 1000   |                            | A102J15C0GF5UAA      | A102K15C0GF5UAA       | AMMO             |
| 1200   |                            | A122J15C0GF5TAA      | A122K15C0GF5TAA       | REEL             |
| 1200   |                            | A122J15C0GF5UAA      | A122K15C0GF5UAA       | AMMO             |
| 1500   |                            | A152J15C0GF5TAA      | A152K15C0GF5TAA       | REEL             |
| 1500   |                            | A152J15C0GF5UAA      | A152K15C0GF5UAA       | AMMO             |
| 1800   |                            | A182J15C0GF5TAA      | A182K15C0GF5TAA       | REEL             |
| 1800   |                            | A182J15C0GF5UAA      | A182K15C0GF5UAA       | AMMO             |
| 2200   |                            | A222J15C0GF5TAA      | A222K15C0GF5TAA       | REEL             |
| 2200   |                            | A222J15C0GF5UAA      | A222K15C0GF5UAA       | AMMO             |
| 2700   |                            | A272J20C0GF5TAA      | A272K20C0GF5TAA       | REEL             |
| 2700   |                            | A272J20C0GF5UAA      | A272K20C0GF5UAA       | AMMO             |
| 3300   |                            | A332J20C0GF5TAA      | A332K20C0GF5TAA       | REEL             |
| 3300   |                            | A332J20C0GF5UAA      | A332K20C0GF5UAA       | AMMO             |
| 3900   |                            | A392J20C0GF5TAA      | A392K20C0GF5TAA       | REEL             |
| 3900   |                            | A392J20C0GF5UAA      | A392K20C0GF5UAA       | AMMO             |
| 4700   |                            | A472J20C0GF5TAA      | A472K20C0GF5TAA       | REEL             |
| 4700   |                            | A472J20C0GF5UAA      | A472K20C0GF5UAA       | AMMO             |
| 5600   |                            | A562J20C0GF5TAA      | A562K20C0GF5TAA       | REEL             |
| 5600   | A562J20C0GF5UAA            | A562K20C0GF5UAA      | AMMO                  |                  |

| <b>MONO-AXIAL Y5V - 100 VDC CLEAR TEXT CODE</b> |                            |                               |                  |
|---|----------------------------|-------------------------------|------------------|
| <b>CAP (pF)</b>                                 | <b>RATED VOLTAGE (Vdc)</b> | <b>+ 80 /- 20 % TOLERANCE</b> | <b>PACKAGING</b> |
| 10000   | 100 Vdc                    | A103Z15Y5VH5TAA               | REEL             |
| 10000   |                            | A103Z15Y5VH5UAA               | AMMO             |
| 15000   |                            | A153Z15Y5VH5TAA               | REEL             |
| 15000   |                            | A153Z15Y5VH5UAA               | AMMO             |
| 22000   |                            | A223Z15Y5VH5TAA               | REEL             |
| 22000   |                            | A223Z15Y5VH5UAA               | AMMO             |
| 33000   |                            | A333Z15Y5VH5TAA               | REEL             |
| 33000   |                            | A333Z15Y5VH5UAA               | AMMO             |
| 47000   |                            | A473Z15Y5VH5TAA               | REEL             |
| 47000   |                            | A473Z15Y5VH5UAA               | AMMO             |
| 68000   |                            | A683Z15Y5VH5TAA               | REEL             |
| 68000   |                            | A683Z15Y5VH5UAA               | AMMO             |
| 100000  |                            | A104Z15Y5VH5TAA               | REEL             |
| 100000  |                            | A104Z15Y5VH5UAA               | AMMO             |
| 150000  |                            | A154Z20Y5VH5TAA               | REEL             |
| 150000  |                            | A154Z20Y5VH5UAA               | AMMO             |
| 220000  |                            | A224Z20Y5VH5TAA               | REEL             |
| 220000  |                            | A224Z20Y5VH5UAA               | AMMO             |



**MONO-AXIAL X7R - 100 VDC CLEAR TEXT CODE**

| CAP (pF) | RATED VOLTAGE (Vdc) | 10 % TOLERANCE  | 20 % TOLERANCE  | PACKAGING |
|----------|---------------------|-----------------|-----------------|-----------|
| 100      | 100 Vdc             | A101K15X7RH5TAA | A101M15X7RH5TAA | REEL      |
| 100      |                     | A101K15X7RH5UAA | A101M15X7RH5UAA | AMMO      |
| 120      |                     | A121K15X7RH5TAA | A121M15X7RH5TAA | REEL      |
| 120      |                     | A121K15X7RH5UAA | A121M15X7RH5UAA | AMMO      |
| 150      |                     | A151K15X7RH5TAA | A151M15X7RH5TAA | REEL      |
| 150      |                     | A151K15X7RH5UAA | A151M15X7RH5UAA | AMMO      |
| 180      |                     | A181K15X7RH5TAA | A181M15X7RH5TAA | REEL      |
| 180      |                     | A181K15X7RH5UAA | A181M15X7RH5UAA | AMMO      |
| 220      |                     | A221K15X7RH5TAA | A221M15X7RH5TAA | REEL      |
| 220      |                     | A221K15X7RH5UAA | A221M15X7RH5UAA | AMMO      |
| 270      |                     | A271K15X7RH5TAA | A271M15X7RH5TAA | REEL      |
| 270      |                     | A271K15X7RH5UAA | A271M15X7RH5UAA | AMMO      |
| 330      |                     | A331K15X7RH5TAA | A331M15X7RH5TAA | REEL      |
| 330      |                     | A331K15X7RH5UAA | A331M15X7RH5UAA | AMMO      |
| 390      |                     | A391K15X7RH5TAA | A391M15X7RH5TAA | REEL      |
| 390      |                     | A391K15X7RH5UAA | A391M15X7RH5UAA | AMMO      |
| 470      |                     | A471K15X7RH5TAA | A471M15X7RH5TAA | REEL      |
| 470      |                     | A471K15X7RH5UAA | A471M15X7RH5UAA | AMMO      |
| 560      |                     | A561K15X7RH5TAA | A561M15X7RH5TAA | REEL      |
| 560      |                     | A561K15X7RH5UAA | A561M15X7RH5UAA | AMMO      |
| 680      |                     | A681K15X7RH5TAA | A681M15X7RH5TAA | REEL      |
| 680      |                     | A681K15X7RH5UAA | A681M15X7RH5UAA | AMMO      |
| 820      |                     | A821K15X7RH5TAA | A821M15X7RH5TAA | REEL      |
| 820      |                     | A821K15X7RH5UAA | A821M15X7RH5UAA | AMMO      |
| 1000     |                     | A102K15X7RH5TAA | A102M15X7RH5TAA | REEL      |
| 1000     |                     | A102K15X7RH5UAA | A102M15X7RH5UAA | AMMO      |
| 1200     |                     | A122K15X7RH5TAA | A122M15X7RH5TAA | REEL      |
| 1200     |                     | A122K15X7RH5UAA | A122M15X7RH5UAA | AMMO      |
| 1500     |                     | A152K15X7RH5TAA | A152M15X7RH5TAA | REEL      |
| 1500     |                     | A152K15X7RH5UAA | A152M15X7RH5UAA | AMMO      |
| 1800     |                     | A182K15X7RH5TAA | A182M15X7RH5TAA | REEL      |
| 1800     |                     | A182K15X7RH5UAA | A182M15X7RH5UAA | AMMO      |
| 2200     | A222K15X7RH5TAA     | A222M15X7RH5TAA | REEL            |           |
| 2200     | A222K15X7RH5UAA     | A222M15X7RH5UAA | AMMO            |           |
| 2700     | A272K15X7RH5TAA     | A272M15X7RH5TAA | REEL            |           |
| 2700     | A272K15X7RH5UAA     | A272M15X7RH5UAA | AMMO            |           |
| 3300     | A332K15X7RH5TAA     | A332M15X7RH5TAA | REEL            |           |
| 3300     | A332K15X7RH5UAA     | A332M15X7RH5UAA | AMMO            |           |
| 3900     | A392K15X7RH5TAA     | A392M15X7RH5TAA | REEL            |           |
| 3900     | A392K15X7RH5UAA     | A392M15X7RH5UAA | AMMO            |           |
| 4700     | A472K15X7RH5TAA     | A472M15X7RH5TAA | REEL            |           |
| 4700     | A472K15X7RH5UAA     | A472M15X7RH5UAA | AMMO            |           |
| 5600     | A562K15X7RH5TAA     | A562M15X7RH5TAA | REEL            |           |
| 5600     | A562K15X7RH5UAA     | A562M15X7RH5UAA | AMMO            |           |
| 6800     | A682K15X7RH5TAA     | A682M15X7RH5TAA | REEL            |           |
| 6800     | A682K15X7RH5UAA     | A682M15X7RH5UAA | AMMO            |           |
| 8200     | A822K15X7RH5TAA     | A822M15X7RH5TAA | REEL            |           |
| 8200     | A822K15X7RH5UAA     | A822M15X7RH5UAA | AMMO            |           |
| 10000    | A103K15X7RH5TAA     | A103M15X7RH5TAA | REEL            |           |
| 10000    | A103K15X7RH5UAA     | A103M15X7RH5UAA | AMMO            |           |
| 12000    | A123K15X7RH5TAA     | A123M15X7RH5TAA | REEL            |           |
| 12000    | A123K15X7RH5UAA     | A123M15X7RH5UAA | AMMO            |           |



**Dipped Axial Multilayer Ceramic Capacitors  
for 50 - 100 Vdc**

| <b>MONO-AXIAL X7R - 100 VDC CLEAR TEXT CODE</b> |                            |                       |                       |                  |
|---|----------------------------|-----------------------|-----------------------|------------------|
| <b>CAP (pF)</b>                                 | <b>RATED VOLTAGE (Vdc)</b> | <b>10 % TOLERANCE</b> | <b>20 % TOLERANCE</b> | <b>PACKAGING</b> |
| 15000   | 100 Vdc                    | A153K15X7RH5TAA       | A153M15X7RH5TAA       | REEL             |
| 15000   |                            | A153K15X7RH5UAA       | A153M15X7RH5UAA       | AMMO             |
| 18000   |                            | A183K15X7RH5TAA       | A183M15X7RH5TAA       | REEL             |
| 18000   |                            | A183K15X7RH5UAA       | A183M15X7RH5UAA       | AMMO             |
| 22000   |                            | A223K15X7RH5TAA       | A223M15X7RH5TAA       | REEL             |
| 22000   |                            | A223K15X7RH5UAA       | A223M15X7RH5UAA       | AMMO             |
| 27000   |                            | A273K20X7RH5TAA       | A273M20X7RH5TAA       | REEL             |
| 27000   |                            | A273K20X7RH5UAA       | A273M20X7RH5UAA       | AMMO             |
| 33000   |                            | A333K20X7RH5TAA       | A333M20X7RH5TAA       | REEL             |
| 33000   |                            | A333K20X7RH5UAA       | A333M20X7RH5UAA       | AMMO             |
| 39000   |                            | A393K20X7RH5TAA       | A393M20X7RH5TAA       | REEL             |
| 39000   |                            | A393K20X7RH5UAA       | A393M20X7RH5UAA       | AMMO             |
| 47000   |                            | A473K20X7RH5TAA       | A473M20X7RH5TAA       | REEL             |
| 47000   |                            | A473K20X7RH5UAA       | A473M20X7RH5UAA       | AMMO             |
| 56000   |                            | A563K20X7RH5TAA       | A563M20X7RH5TAA       | REEL             |
| 56000   |                            | A563K20X7RH5UAA       | A563M20X7RH5UAA       | AMMO             |
| 68000   |                            | A683K20X7RH5TAA       | A683M20X7RH5TAA       | REEL             |
| 68000   |                            | A683K20X7RH5UAA       | A683M20X7RH5UAA       | AMMO             |
| 82000   |                            | A823K20X7RH5TAA       | A823M20X7RH5TAA       | REEL             |
| 82000   |                            | A823K20X7RH5UAA       | A823M20X7RH5UAA       | AMMO             |
| 100000  | A104K20X7RH5TAA            | A104M20X7RH5TAA       | REEL                  |                  |
| 100000  | A104K20X7RH5UAA            | A104M20X7RH5UAA       | AMMO                  |                  |

| <b>MONO-AXIAL COG - 100 VDC V CLEAR TEXT CODE</b> |                            |                      |                       |                  |
|---|----------------------------|----------------------|-----------------------|------------------|
| <b>CAP (pF)</b>                                   | <b>RATED VOLTAGE (Vdc)</b> | <b>5 % TOLERANCE</b> | <b>10 % TOLERANCE</b> | <b>PACKAGING</b> |
| 10  | 100 Vdc                    | A100J15C0GH5TAA      | A100K15C0GH5TAA       | REEL             |
| 10  |                            | A100J15C0GH5UAA      | A100K15C0GH5UAA       | AMMO             |
| 12  |                            | A120J15C0GH5TAA      | A120K15C0GH5TAA       | REEL             |
| 12  |                            | A120J15C0GH5UAA      | A120K15C0GH5UAA       | AMMO             |
| 15  |                            | A150J15C0GH5TAA      | A150K15C0GH5TAA       | REEL             |
| 15  |                            | A150J15C0GH5UAA      | A150K15C0GH5UAA       | AMMO             |
| 18  |                            | A180J15C0GH5TAA      | A180K15C0GH5TAA       | REEL             |
| 18  |                            | A180J15C0GH5UAA      | A180K15C0GH5UAA       | AMMO             |
| 22  |                            | A220J15C0GH5TAA      | A220K15C0GH5TAA       | REEL             |
| 22  |                            | A220J15C0GH5UAA      | A220K15C0GH5UAA       | AMMO             |
| 27  |                            | A270J15C0GH5TAA      | A270K15C0GH5TAA       | REEL             |
| 27  |                            | A270J15C0GH5UAA      | A270K15C0GH5UAA       | AMMO             |
| 33  |                            | A330J15C0GH5TAA      | A330K15C0GH5TAA       | REEL             |
| 33  |                            | A330J15C0GH5UAA      | A330K15C0GH5UAA       | AMMO             |
| 39  |                            | A390J15C0GH5TAA      | A390K15C0GH5TAA       | REEL             |
| 39  |                            | A390J15C0GH5UAA      | A390K15C0GH5UAA       | AMMO             |
| 47  |                            | A470J15C0GH5TAA      | A470K15C0GH5TAA       | REEL             |
| 47  |                            | A470J15C0GH5UAA      | A470K15C0GH5UAA       | AMMO             |
| 56  |                            | A560J15C0GH5TAA      | A560K15C0GH5TAA       | REEL             |
| 56  |                            | A560J15C0GH5UAA      | A560K15C0GH5UAA       | AMMO             |
| 68  | A680J15C0GH5TAA            | A680K15C0GH5TAA      | REEL                  |                  |
| 68  | A680J15C0GH5UAA            | A680K15C0GH5UAA      | AMMO                  |                  |
| 82  | A820J15C0GH5TAA            | A820K15C0GH5TAA      | REEL                  |                  |
| 82  | A820J15C0GH5UAA            | A820K15C0GH5UAA      | AMMO                  |                  |
| 100   | A101J15C0GH5TAA            | A101K15C0GH5TAA      | REEL                  |                  |
| 100   | A101J15C0GH5UAA            | A101K15C0GH5UAA      | AMMO                  |                  |
| 120   | A121J15C0GH5TAA            | A121K15C0GH5TAA      | REEL                  |                  |





| <b>MONO-AXIAL COG - 100 VDC V CLEAR TEXT CODE</b> |                            |                      |                       |                  |
|---|----------------------------|----------------------|-----------------------|------------------|
| <b>CAP (pF)</b>                                   | <b>RATED VOLTAGE (Vdc)</b> | <b>5 % TOLERANCE</b> | <b>10 % TOLERANCE</b> | <b>PACKAGING</b> |
| 120   | 100 Vdc                    | A121J15C0GH5UAA      | A121K15C0GH5UAA       | AMMO             |
| 150   |                            | A151J15C0GH5TAA      | A151K15C0GH5TAA       | REEL             |
| 150   |                            | A151J15C0GH5UAA      | A151K15C0GH5UAA       | AMMO             |
| 180   |                            | A181J15C0GH5TAA      | A181K15C0GH5TAA       | REEL             |
| 180   |                            | A181J15C0GH5UAA      | A181K15C0GH5UAA       | AMMO             |
| 220   |                            | A221J15C0GH5TAA      | A221K15C0GH5TAA       | REEL             |
| 220   |                            | A221J15C0GH5UAA      | A221K15C0GH5UAA       | AMMO             |
| 270   |                            | A271J15C0GH5TAA      | A271K15C0GH5TAA       | REEL             |
| 270   |                            | A271J15C0GH5UAA      | A271K15C0GH5UAA       | AMMO             |
| 330   |                            | A331J15C0GH5TAA      | A331K15C0GH5TAA       | REEL             |
| 330   |                            | A331J15C0GH5UAA      | A331K15C0GH5UAA       | AMMO             |
| 390   |                            | A391J15C0GH5TAA      | A391K15C0GH5TAA       | REEL             |
| 390   |                            | A391J15C0GH5UAA      | A391K15C0GH5UAA       | AMMO             |
| 470   |                            | A471J15C0GH5TAA      | A471K15C0GH5TAA       | REEL             |
| 470   |                            | A471J15C0GH5UAA      | A471K15C0GH5UAA       | AMMO             |
| 560   |                            | A561J15C0GH5TAA      | A561K15C0GH5TAA       | REEL             |
| 560   |                            | A561J15C0GH5UAA      | A561K15C0GH5UAA       | AMMO             |
| 680   |                            | A681J15C0GH5TAA      | A681K15C0GH5TAA       | REEL             |
| 680   |                            | A681J15C0GH5UAA      | A681K15C0GH5UAA       | AMMO             |
| 820   |                            | A821J15C0GH5TAA      | A821K15C0GH5TAA       | REEL             |
| 820   |                            | A821J15C0GH5UAA      | A821K15C0GH5UAA       | AMMO             |
| 1000  |                            | A102J20C0GH5TAA      | A102K20C0GH5TAA       | REEL             |
| 1000  |                            | A102J20C0GH5UAA      | A102K20C0GH5UAA       | AMMO             |
| 1200  |                            | A122J20C0GH5TAA      | A122K20C0GH5TAA       | REEL             |
| 1200  |                            | A122J20C0GH5UAA      | A122K20C0GH5UAA       | AMMO             |
| 1500  |                            | A152J20C0GH5TAA      | A152K20C0GH5TAA       | REEL             |
| 1500  |                            | A152J20C0GH5UAA      | A152K20C0GH5UAA       | AMMO             |
| 1800  |                            | A182J20C0GH5TAA      | A182K20C0GH5TAA       | REEL             |
| 1800  |                            | A182J20C0GH5UAA      | A182K20C0GH5UAA       | AMMO             |
| 2200  |                            | A222J20C0GH5TAA      | A222K20C0GH5TAA       | REEL             |
| 2200  |                            | A222J20C0GH5UAA      | A222K20C0GH5UAA       | AMMO             |
| 2700  |                            | A272J20C0GH5TAA      | A272K20C0GH5TAA       | REEL             |
| 2700  | A272J20C0GH5UAA            | A272K20C0GH5UAA      | AMMO                  |                  |
| 3300  | A332J20C0GH5TAA            | A332K20C0GH5TAA      | REEL                  |                  |
| 3300  | A332J20C0GH5UAA            | A332K20C0GH5UAA      | AMMO                  |                  |
| 3900  | A392J20C0GH5TAA            | A392K20C0GH5TAA      | REEL                  |                  |
| 3900  | A392J20C0GH5UAA            | A392K20C0GH5UAA      | AMMO                  |                  |
| 4700  | A472J20C0GH5TAA            | A472K20C0GH5TAA      | REEL                  |                  |
| 4700  | A472J20C0GH5UAA            | A472K20C0GH5UAA      | AMMO                  |                  |
| 5600  | A562J20C0GH5TAA            | A562K20C0GH5TAA      | REEL                  |                  |
| 5600  | A562J20C0GH5UAA            | A562K20C0GH5UAA      | AMMO                  |                  |



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Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «JONHON», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «FORSTAR».



## JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



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