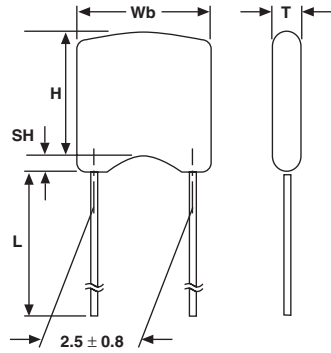


Dipped Radial Multilayer Ceramic Capacitors

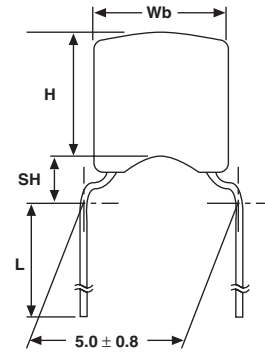
DIMENSIONS



RoHS
COMPLIANT

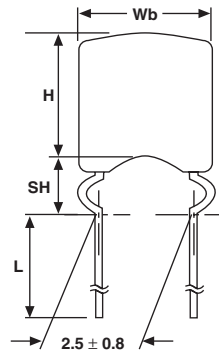


L2
Component outline for
Lead spacing 2.5 ± 0.8 mm
(straight leads)

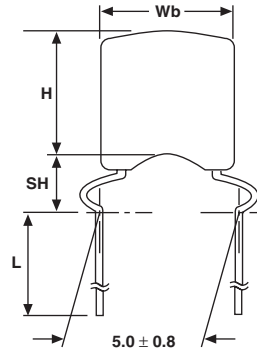


H5
Component outline for
Lead spacing 5.0 ± 0.8 mm
(flat bent leads)

L2 and H5 are preferred styles



K2
Component outline for
Lead spacing 2.5 ± 0.8 mm
(outside kink)



K5
Component outline for
Lead spacing 5.0 ± 0.8 mm
(outside kink)

| CAPACITOR DIMENSIONS AND WEIGHT | | | | | | | | |
|---------------------------------|-------------------|------------------|------------------|--------------------------|-----------------|-----------------|-----------------|------------|
| SIZE | Wb _{MAX} | H _{MAX} | T _{MAX} | MAX. SEATING HEIGHT (SH) | | | | WEIGHT (g) |
| | | | | L2 | H5 | K2 | K5 | |
| 15 | 4.0 (0.15) | 4.0 (0.15) | 2.5 (0.100) | 5.58 (0.220) | 6.50 (0.256) | 7.50 (0.295) | 7.50 (0.295) | ≈ 0.15 |
| 20 | 5.0 (0.20) | 5.0 (0.20) | 3.2 (0.13) | 6.58 (0.259) | 7.50 (0.295) | 8.50 (0.335) | 8.50 (0.335) | ≈ 0.16 |

Note

1. Bulk packed types have a standard lead length L = 25.4 mm (1.0 inch) minimum
2. Dimensions between parentheses are in inches
3. Thickness is defined as T



| QUICK REFERENCE DATA | | | | | | |
|--------------------------|----------------|-------|------------------|-------|------------------|-------|
| DESCRIPTION | VALUE | | | | | |
| Capacitance range | 10 to 6800 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 | |

| ORDERING INFORMATION | | | | | | | | | |
|----------------------|--|--|-----------------------|-------------------|---|--------------------|--|---|--------------------------------------|
| K | 103 | K | 15 | X7R | F | 5 | 3 | H | 5 |
| PRODUCT TYPE | CAPACITANCE CODE | CAPACITANCE TOLERANCE | SIZE CODE | TEMP. CHAR. | RATED VOLTAGE | LEAD DIAMETER | LEAD LENGTH/PACKAGING | LEAD STYLE | LEAD SPACING |
| K = Mono-Kap | Two significant digits followed by the number of zeros. example: 103 = 10,000 pF | J = ± 5 % K = ± 10 % M = ± 20 % Z = + 80 / - 20 % | Ref. mechanical spec. | C0G X7R Y5V | F = 50 V _{DC} H = 100 V _{DC} | 5 = 0.5mm (0.020") | 3 = bulk, with lead length of 30 ± 5.0 (1.25") T = Tape and Reel U = Ammo pack | L = Straight Lead H = High Seated assy | 2 = 2.5 (0.100") 5 = 5.0 (0.200") |



CAPACITANCE RANGE CHART COG (NPO) DIELECTRIC

| SIZE | | 15 | | 20 | |
|---------------|------|----|-----|----|-----|
| RATED VOLTAGE | | 50 | 100 | 50 | 100 |
| VALUE | CODE | | | | |
| 10pF | 100 | | | | |
| 12pF | 120 | | | | |
| 15pF | 150 | | | | |
| 18pF | 180 | | | | |
| 22pF | 220 | | | | |
| 27pF | 270 | | | | |
| 33pF | 330 | | | | |
| 39pF | 390 | | | | |
| 47pF | 470 | | | | |
| 56pF | 560 | | | | |
| 68pF | 680 | | | | |
| 82pF | 820 | | | | |
| 100pF | 101 | | | | |
| 120pF | 121 | | | | |
| 150pF | 151 | | | | |
| 180pF | 181 | | | | |
| 220pF | 221 | | | | |
| 270pF | 271 | | | | |
| 330pF | 331 | | | | |
| 390pF | 391 | | | | |
| 470pF | 471 | | | | |
| 560pF | 561 | | | | |
| 680pF | 681 | | | | |
| 820pF | 821 | | | | |
| 1000pF | 102 | | | | |
| 1200pF | 122 | | | | |
| 1500pF | 152 | | | | |
| 1800pF | 182 | | | | |
| 2200pF | 222 | | | | |
| 2700pF | 272 | | | | |
| 3300pF | 332 | | | | |
| 3900pF | 392 | | | | |
| 4700pF | 472 | | | | |
| 5600pF | 562 | | | | |
| 6800pF | 682 | | | | |
| 8200pF | 822 | | | | |
| 0.01μF | 103 | | | | |

Y5V DIELECTRIC

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

X7R DIELECTRIC

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



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