

FEATURES

- Four individual capacitors inside one 1206 monolithic structure
- Saves board and inventory space
- One placement instead of four - less costly
- Easier to handle and solder than 4 smaller chips
- Tape and reel per EIA 481-1

Capacitor Outline Drawing

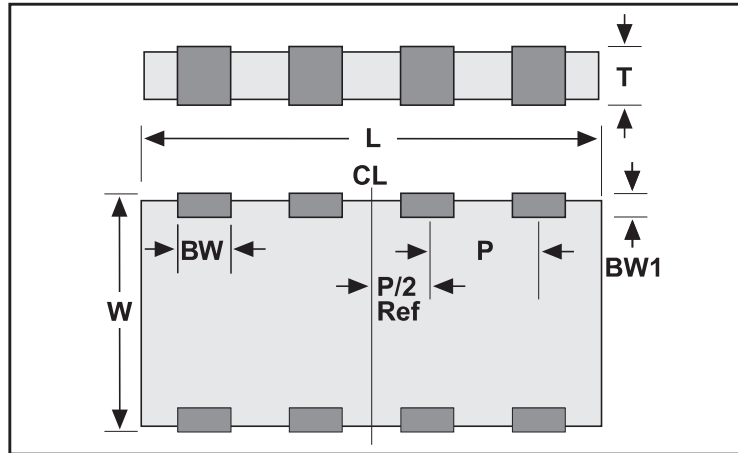


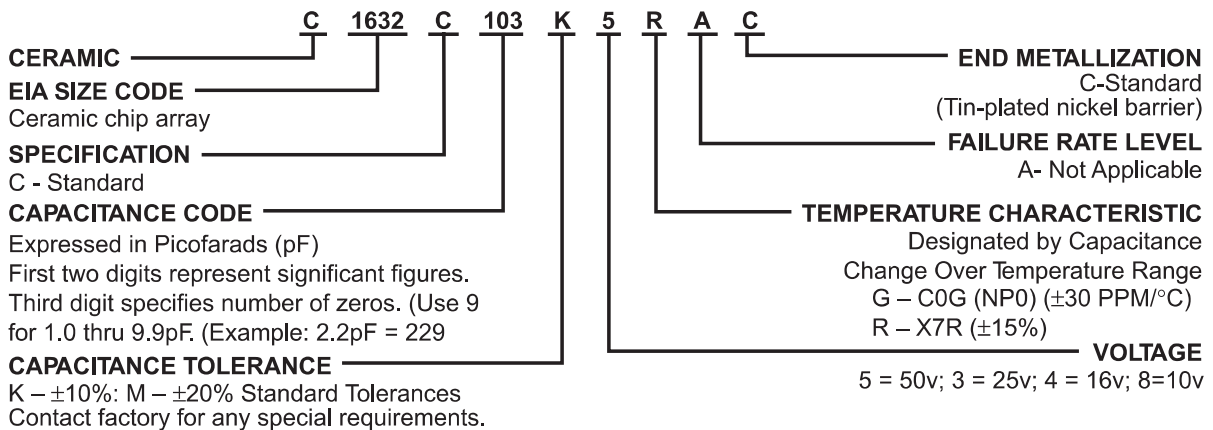
Table 1
EIA Dimensions – Millimeters (Inches)

| Size Code | Length L | Width W | Thickness T (max.) | Bandwidth BW | Bandwidth BW1 | Pitch P |
|-----------|------------------------------|----------------------------|-------------------------------|-------------------------------|------------------------------|------------------------------|
| 1632 | 3.2 (0.126) ± 0.2 (0.008) | 1.6 (.063) ± 0.2 (.008) | 0.7 - 1.35 (0.027 - 0.053) | 0.40 (0.016) ± 0.2 (0.008) | 0.1 - 0.5 (0.004 - 0.020) | 0.8 (0.031) ± 0.1 (0.004) |

Notes:

1. Metric is controlling - English for reference only.
2. Pitch (P) tolerances are non-cumulative along the package.
3. Thickness (T) depends on capacitance.

Ceramic Array Ordering Information



Ceramic Capacitor Array

Table 2a
C0G Dielectric – Capacitance Range

| Capacitance Values (pF) | KEMET Part Number | Capacitance Tolerance | 10V 16V | 25V | 50V | 100V | 200V |
|-------------------------|--------------------|-----------------------|------------|-----|-----|------|------|
| 10 | C1632C100(1)(2)GAC | K,M | 100 | 100 | 100 | 100 | 100 |
| 12 | C1632C120(1)(2)GAC | K,M | 120 | 120 | 120 | 120 | 120 |
| 15 | C1632C150(1)(2)GAC | K,M | 150 | 150 | 150 | 150 | 150 |
| 18 | C1632C180(1)(2)GAC | K,M | 180 | 180 | 180 | 180 | 180 |
| 22 | C1632C220(1)(2)GAC | K,M | 220 | 220 | 220 | 220 | 220 |
| 27 | C1632C270(1)(2)GAC | K,M | 270 | 270 | 270 | 270 | 270 |
| 33 | C1632C330(1)(2)GAC | K,M | 330 | 330 | 330 | 330 | 330 |
| 39 | C1632C390(1)(2)GAC | K,M | 390 | 390 | 390 | 390 | 390 |
| 47 | C1632C470(1)(2)GAC | K,M | 470 | 470 | 470 | 470 | 470 |
| 56 | C1632C560(1)(2)GAC | K,M | 560 | 560 | 560 | 560 | 560 |
| 68 | C1632C680(1)(2)GAC | K,M | 680 | 680 | 680 | 680 | 680 |
| 82 | C1632C820(1)(2)GAC | K,M | 820 | 820 | 820 | 820 | 820 |
| 100 | C1632C101(1)(2)GAC | K,M | 101 | 101 | 101 | 101 | |
| 120 | C1632C121(1)(2)GAC | K,M | 121 | 121 | 121 | 121 | |
| 150 | C1632C151(1)(2)GAC | K,M | 151 | 151 | 151 | 151 | |
| 180 | C1632C181(1)(2)GAC | K,M | 181 | 181 | 181 | 181 | |
| 220 | C1632C221(1)(2)GAC | K,M | 221 | 221 | 221 | | |
| 270 | C1632C271(1)(2)GAC | K,M | 271 | 271 | 271 | | |
| 330 | C1632C331(1)(2)GAC | K,M | 331 | 331 | 331 | | |
| 390 | C1632C391(1)(2)GAC | K,M | 391 | 391 | 391 | | |
| 470 | C1632C471(1)(2)GAC | K,M | 471 | 471 | 471 | | |

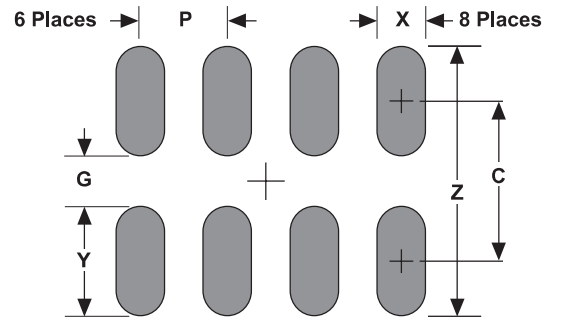
- (1) To complete the KEMET part number, insert the alpha code for the tolerance desired.
K = ±10% and M = ±20% – standard tolerance. Contact factory for any special requirements.
(2) To complete the KEMET part number, insert appropriate number for voltage desired:
"5" = 50 volts, "3" = 25 volts, "4" = 16 volts, and "8" = 10 volts.

Table 2b
X7R Dielectric – Capacitance Range

| Capacitance Values (pF) | KEMET Part Number | Capacitance Tolerance | 10V 16V | 25V | 50V | 100V | 200V |
|-------------------------|--------------------|-----------------------|------------|-----|-----|------|------|
| 330 | C1632C331(1)(2)RAC | K,M | 331 | 331 | 331 | 331 | 331 |
| 390 | C1632C391(1)(2)RAC | K,M | 391 | 391 | 391 | 391 | 391 |
| 470 | C1632C471(1)(2)RAC | K,M | 471 | 471 | 471 | 471 | 471 |
| 560 | C1632C561(1)(2)RAC | K,M | 561 | 561 | 561 | 561 | 561 |
| 680 | C1632C681(1)(2)RAC | K,M | 681 | 681 | 681 | 681 | |
| 820 | C1632C821(1)(2)RAC | K,M | 821 | 821 | 821 | 821 | |
| 1000 | C1632C102(1)(2)RAC | K,M | 102 | 102 | 102 | 102 | |
| 1200 | C1632C122(1)(2)RAC | K,M | 122 | 122 | 122 | 122 | |
| 1500 | C1632C152(1)(2)RAC | K,M | 152 | 152 | 152 | 152 | |
| 1800 | C1632C182(1)(2)RAC | K,M | 182 | 182 | 182 | 182 | |
| 2200 | C1632C222(1)(2)RAC | K,M | 222 | 222 | 222 | 222 | |
| 2700 | C1632C272(1)(2)RAC | K,M | 272 | 272 | 272 | 272 | |
| 3300 | C1632C332(1)(2)RAC | K,M | 332 | 332 | 332 | 332 | |
| 3900 | C1632C392(1)(2)RAC | K,M | 392 | 392 | 392 | 392 | |
| 4700 | C1632C472(1)(2)RAC | K,M | 472 | 472 | 472 | 472 | |
| 5600 | C1632C562(1)(2)RAC | K,M | 562 | 562 | 562 | | |
| 6800 | C1632C682(1)(2)RAC | K,M | 682 | 682 | 682 | | |
| 8200 | C1632C822(1)(2)RAC | K,M | 822 | 822 | 822 | | |
| 10,000 | C1632C103(1)(2)RAC | K,M | 103 | 103 | 103 | | |
| 12,000 | C1632C123(1)(2)RAC | K,M | 123 | 123 | 123 | | |
| 15,000 | C1632C153(1)(2)RAC | K,M | 153 | 153 | 153 | | |
| 18,000 | C1632C183(1)(2)RAC | K,M | 183 | 183 | 183 | | |
| 22,000 | C1632C223(1)(2)RAC | K,M | 223 | 223 | 223 | | |
| 27,000 | C1632C273(1)(2)RAC | K,M | 273 | | | | |
| 33,000 | C1632C333(1)(2)RAC | K,M | 333 | | | | |
| 39,000 | C1632C393(1)(2)RAC | K,M | 393 | | | | |
| 47,000 | C1632C473(1)(2)RAC | K,M | 473 | | | | |
| 56,000 | C1632C563(1)(2)RAC | K,M | 563 | | | | |
| 68,000 | C1632C683(1)(2)RAC | K,M | 683 | | | | |
| 82,000 | C1632C823(1)(2)RAC | K,M | 823 | | | | |
| 100,000 | C1632C104(1)(2)RAC | K,M | 104 | | | | |

- (1) To complete the KEMET part number, insert the alpha code for the tolerance desired.
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1632 Ceramic Array Land Pattern Layout



Additional pad dimension information is available in KEMET Technical Bulletin F-2100.

Land Pattern Dimensions - Ceramic Chip Capacitor Arrays - mm

| Dimension | Reflow Solder | | | | |
|-----------|---------------|------|------|--------|--------|
| | Z | G | X | Y(ref) | C(ref) |
| 3216 | 2.80 | 0.40 | 0.52 | 1.20 | 1.60 |

Calculation Formula
 $Z = L_{min} + 2J_t + T_t$
 $G = S_{max} - 2J_h - T_h$
 $X = W_{min} + 2J_s + T_s$
 Tt, Th, Ts = Combined tolerances