

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

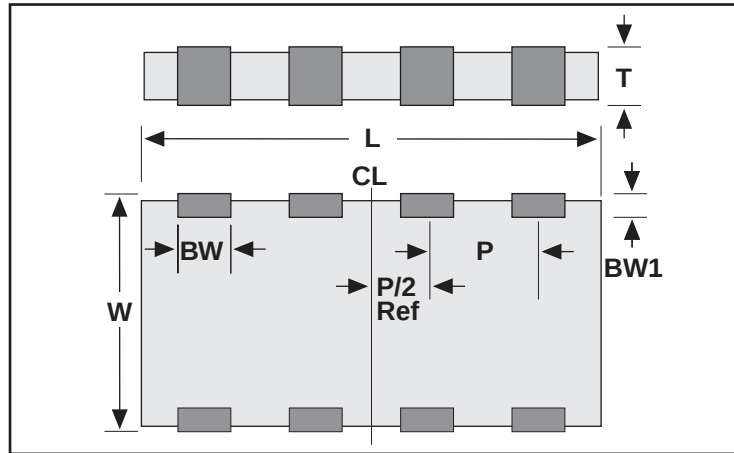


Table 1
EIA Dimensions – Millimeters (Inches)

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	C	1632	C	103	K	5	R	A	C	END METALLIZATION
EIA SIZE CODE										C-Standard (Tin-plated nickel barrier)
SPECIFICATION										FAILURE RATE LEVEL
C - Standard										A- Not Applicable
CAPACITANCE CODE										TEMPERATURE CHARACTERISTIC
Expressed in Picofarads (pF)										Designated by Capacitance
First two digits represent significant figures.										Change Over Temperature Range
Third digit specifies number of zeros. (Use 9 for 1.0 thru 9.9pF. (Example: 2.2pF = 229										G – C0G (NP0) (±30 PPM/°C)
										R – X7R (±15%)
CAPACITANCE TOLERANCE										VOLTAGE
K – ±10%; M – ±20% Standard Tolerances										5 = 50v; 3 = 25v; 4 = 16v; 8=10v
Contact factory for any special requirements.										

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		

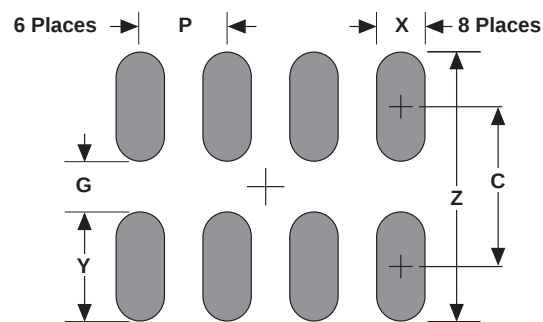
- (1) To complete the KEMET part number, insert the alpha code for the tolerance desired.
K = ±10% and M = ±20% – standard tolerance. Contact factory for any special requirements.
(2) To complete the KEMET part number, insert appropriate number for voltage desired:
"5" = 50 volts, "3" = 25 volts, "4"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

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

$Z = L_{min} + 2J_t + T_t$
 $G = S_{max} - 2J_h - T_h$
 $X = W_{min} + 2J_s + T_s$
 $T_t, T_h, T_s = \text{Combined tolerances}$

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

KEMET:

C1632C100K1GACTU	C1632C100K2GACTU	C1632C100K4GACTU	C1632C100K5GACTU	C1632C150K4GACTU
C1632C150K5GACTU	C1632C101K3GACTU	C1632C101K5GACTU	C1632C101M5GACTU	C1632C102K3RACTU
C1632C102K4RACTU	C1632C102K5RACTU	C1632C102K8RACTU	C1632C102M3RACTU	C1632C102M5RACTU
C1632C103K3RACTU	C1632C103K4RACTU	C1632C103K5RACTU	C1632C153K5RACTU	C1632C153M5RACTU
C1632C181K4GACTU	C1632C181K5GACTU	C1632C151K4GACTU	C1632C151K5GACTU	C1632C330K5GACTU
C1632C470K3GACTU	C1632C470K5GACTU	C1632C470M5GACTU	C1632C471K4RACTU	C1632C471K5GACTU
C1632C471K5RACTU	C1632C471M3GACTU	C1632C471M4RACTU	C1632C471M5RACTU	C1632C472K5RACTU
C1632C472M1RACTU	C1632C473K4RACTU	C1632C473K8RACTU	C1632C473M4RACTU	C1632C560K5GACTU
C1632C220M5GACTU	C1632C221K5GACTU	C1632C221M5GACTU	C1632C222K4RACTU	C1632C222K5RACTU
C1632C223K5RACTU	C1632C223M3RACTU	C1632C223M5RACTU	C1632C270K5GACTU	C1632C683K4RACTU
C1632C683M4RACTU	C1632C820K2GACTU	C1632C103M3RACTU	C1632C103M5RACTU	C1632C104K4RACTU
C1632C120K5GACTU	C1632C121K5GACTU	C1632C220K2GACTU	C1632C220K3GACTU	C1632C220K5GACTU
C1632C390K5GACTU	C1632C331K5GACTU	C1632C331K5RACTU	C1632C331M5RACTU	C1632C332K5RACTU
C1632C561K2RACTU	C1632C680K5GACTU	C1632C104M4RACTU	C1632C332K1RACTU	C1632C680K8GACTU
C1632C220K4GACTU	C1632C391K5GACTU	C1632C680M3GACTU	C1632C101K1GACTU	C1632C220M3GACTU
C1632C270K8GACTU	C1632C100M5GACTU	C1632C101K8GACTU	C1632C470K8GACTU	C1632C220K8GACTU
C1632C330K8GACTU	C1632C331M5GACTU	C1632C104K8RACTU	C1632C472K3RACTU	C1632C222K1RACTU
C1632C103M3RACTM	C1632C102M1RACTU	C1632C472M5RACTU	C1632C103M4RACTU	
C1632C102M5RACTM	C1632C104M8RACTU	C1632C562M5RACTU	C1632C103K8RACTU	C1632C182M5RACTU
C1632C333K4RACTU	C1632C103M5RACAUTO	C1632C471K5GAC3124	C1632C104K4RAC7210	
C1632C181K5GAC7800	C1632C104M4RACAUTO			