

# Ceramic Capacitors

## For General Use

### SMD

## C Series

### FEATURES

- High capacitance has been achieved through precision technologies that enable the use of multiple thinner ceramic dielectric layers.
- A monolithic structure ensures superior mechanical strength and reliability.
- High-accuracy automatic mounting is facilitated through the maintenance of very precise dimensional tolerances.
- Composed of only ceramics and metals, these capacitors provide extremely dependable performance, exhibiting virtually no degradation even when subjected to temperature extremes.
- Low stray capacitance ensures high conformity with nominal values, thereby simplifying the circuit design process.
- Low residual inductance assures superior frequency characteristics.

### PRODUCT IDENTIFICATION

C 1005 CH 1H 100 D □  
 (1) (2) (3) (4) (5) (6) (7)

#### (1) Series name

#### (2) Dimensions L×W

0603	0.6×0.3mm
1005	1.0×0.5mm
1608	1.6×0.8mm
2012	2.0×1.25mm
3216	3.2×1.6mm

#### (3) Capacitance temperature characteristics

##### Class 1 (Temperature compensation)

Temperature characteristics	Capacitance change	Temperature range
C0G	0±30ppm/°C	-55 to +125°C

##### Class 2 (Temperature stable and general purpose)

Temperature characteristics	Capacitance change	Temperature range
X7R	±15%	-55 to +125°C
X5R	±15%	-55 to +85°C
Y5V	+22, -82%	-30 to +85°C

#### (4) Rated voltage E<sub>dc</sub>

0J	6.3V
1A	10V
1C	16V
1E	25V
1H	50V

#### (5) Nominal capacitance

The capacitance is expressed in three digit codes and in units of pico farads (pF).

The first and second digits identify the first and second significant figures of the capacitance.

The third digit identifies the multiplier.

R designates a decimal point.

010	1pF
100	10pF
102	1000pF
0R5	0.5pF

#### (6) Capacitance tolerance

Symbol	Tolerance	Applicable capacitance range
C	±0.25pF	10pF or less
D	±0.5pF	
J	±5%	Over 10pF
K	±10%	
M	±20%	
Z	+80, -20%	

#### (7) Packaging style

T	Taping (reel)
B	Bulk

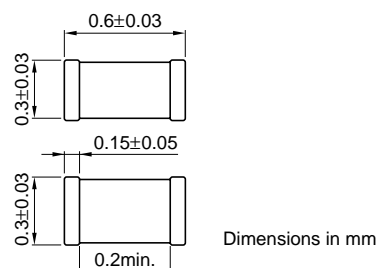
# Ceramic Capacitors

For General Use  
SMD

## C Series

### C0603 (EIA:CC0201) TYPE

#### SHAPES AND DIMENSIONS



#### CAPACITANCE RANGES:

##### CLASS 1 (TEMPERATURE COMPENSATION)

#### TEMPERATURE CHARACTERISTICS: C0G(0±30ppm/°C)

RATED VOLTAGE E<sub>dc</sub>: 25V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
0.5*	±0.25pF	0.3±0.03	C0603C0G1E0R5C
0.75*	±0.25pF	0.3±0.03	C0603C0G1E0R75C
1	±0.25pF	0.3±0.03	C0603C0G1E010C
1.5	±0.25pF	0.3±0.03	C0603C0G1E1R5C
2	±0.25pF	0.3±0.03	C0603C0G1E020C
3	±0.25pF	0.3±0.03	C0603C0G1E030C
4	±0.25pF	0.3±0.03	C0603C0G1E040C
5	±0.25pF	0.3±0.03	C0603C0G1E050C
6	±0.5pF	0.3±0.03	C0603C0G1E060D
7	±0.5pF	0.3±0.03	C0603C0G1E070D
8	±0.5pF	0.3±0.03	C0603C0G1E080D
9	±0.5pF	0.3±0.03	C0603C0G1E090D
10	±0.5pF	0.3±0.03	C0603C0G1E100D
12	±5%	0.3±0.03	C0603C0G1E120J
15	±5%	0.3±0.03	C0603C0G1E150J
18	±5%	0.3±0.03	C0603C0G1E180J
20	±5%	0.3±0.03	C0603C0G1E200J
22	±5%	0.3±0.03	C0603C0G1E220J
27	±5%	0.3±0.03	C0603C0G1E270J
33	±5%	0.3±0.03	C0603C0G1E330J
39	±5%	0.3±0.03	C0603C0G1E390J
47	±5%	0.3±0.03	C0603C0G1E470J
56	±5%	0.3±0.03	C0603C0G1E560J
68	±5%	0.3±0.03	C0603C0G1E680J
82	±5%	0.3±0.03	C0603C0G1E820J
100	±5%	0.3±0.03	C0603C0G1E101J

#### CAPACITANCE RANGES:

##### CLASS 2

#### TEMPERATURE CHARACTERISTICS: X5R (±15%)

RATED VOLTAGE E<sub>dc</sub>: 25V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
100	±10%	0.3±0.03	C0603X5R1E101K
150*	±10%	0.3±0.03	C0603X5R1E151K
220	±10%	0.3±0.03	C0603X5R1E221K
330*	±10%	0.3±0.03	C0603X5R1E331K
470	±10%	0.3±0.03	C0603X5R1E471K
680*	±10%	0.3±0.03	C0603X5R1E681K
1000	±10%	0.3±0.03	C0603X5R1E102K
1500*	±10%	0.3±0.03	C0603X5R1E152K
2200	±10%	0.3±0.03	C0603X5R1E222K

RATED VOLTAGE E<sub>dc</sub>: 16V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
3300*	±10%	0.3±0.03	C0603X5R1C332K
4700	±10%	0.3±0.03	C0603X5R1C472K

RATED VOLTAGE E<sub>dc</sub>: 10V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
6800*	±10%	0.3±0.03	C0603X5R1A682K

RATED VOLTAGE E<sub>dc</sub>: 6.3V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
10000	±10%	0.3±0.03	C0603X5R0J103K

#### TEMPERATURE CHARACTERISTICS: Y5V (+22, -82%)

RATED VOLTAGE E<sub>dc</sub>: 25V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
1000	+80, -20%	0.3±0.03	C0603Y5V1E102Z

RATED VOLTAGE E<sub>dc</sub>: 16V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
10000	+80, -20%	0.3±0.03	C0603Y5V1C103Z

\* These products marked \* are nonstandard.

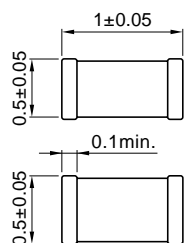
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# Ceramic Capacitors

For General Use  
SMD

## C Series

### C1005 (EIA:CC0402) TYPE SHAPES AND DIMENSIONS



Dimensions in mm

### CAPACITANCE RANGES: CLASS 1 (TEMPERATURE COMPENSATION) TEMPERATURE CHARACTERISTICS: C0G(0±30ppm/°C)

RATED VOLTAGE E<sub>dc</sub>: 50V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
0.5*	±0.25pF	0.5±0.05	C1005C0G1H0R5C
0.75*	±0.25pF	0.5±0.05	C1005C0G1HR75C
1	±0.25pF	0.5±0.05	C1005C0G1H010C
1.5	±0.25pF	0.5±0.05	C1005C0G1H1R5C
2	±0.25pF	0.5±0.05	C1005C0G1H020C
3	±0.25pF	0.5±0.05	C1005C0G1H030C
4	±0.25pF	0.5±0.05	C1005C0G1H040C
5	±0.25pF	0.5±0.05	C1005C0G1H050C
6	±0.5pF	0.5±0.05	C1005C0G1H060D
7	±0.5pF	0.5±0.05	C1005C0G1H070D
8	±0.5pF	0.5±0.05	C1005C0G1H080D
9	±0.5pF	0.5±0.05	C1005C0G1H090D
10	±0.5pF	0.5±0.05	C1005C0G1H100D
12	±5%	0.5±0.05	C1005C0G1H120J
15	±5%	0.5±0.05	C1005C0G1H150J
18	±5%	0.5±0.05	C1005C0G1H180J
22	±5%	0.5±0.05	C1005C0G1H220J
27	±5%	0.5±0.05	C1005C0G1H270J
33	±5%	0.5±0.05	C1005C0G1H330J
39	±5%	0.5±0.05	C1005C0G1H390J
47	±5%	0.5±0.05	C1005C0G1H470J
56	±5%	0.5±0.05	C1005C0G1H560J
68	±5%	0.5±0.05	C1005C0G1H680J
82	±5%	0.5±0.05	C1005C0G1H820J
100	±5%	0.5±0.05	C1005C0G1H101J
120	±5%	0.5±0.05	C1005C0G1H121J

### CAPACITANCE RANGES:

#### CLASS 2

### TEMPERATURE CHARACTERISTICS: X7R (±15%)

RATED VOLTAGE E<sub>dc</sub>: 50V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
220	±10%	0.5±0.05	C1005X7R1H221K
330*	±10%	0.5±0.05	C1005X7R1H331K
470	±10%	0.5±0.05	C1005X7R1H471K
680*	±10%	0.5±0.05	C1005X7R1H681K
1000	±10%	0.5±0.05	C1005X7R1H102K
1500*	±10%	0.5±0.05	C1005X7R1H152K
2200	±10%	0.5±0.05	C1005X7R1H222K
3300*	±10%	0.5±0.05	C1005X7R1H332K
4700	±10%	0.5±0.05	C1005X7R1H472K
6800*	±10%	0.5±0.05	C1005X7R1H682K

RATED VOLTAGE E<sub>dc</sub>: 25V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
10000	±10%	0.5±0.05	C1005X7R1E103K
15000*	±10%	0.5±0.05	C1005X7R1E153K
22000	±10%	0.5±0.05	C1005X7R1E223K

RATED VOLTAGE E<sub>dc</sub>: 16V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
33000*	±10%	0.5±0.05	C1005X7R1C333K
47000	±10%	0.5±0.05	C1005X7R1C473K

### TEMPERATURE CHARACTERISTICS: X5R (±15%)

RATED VOLTAGE E<sub>dc</sub>: 10V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
68000*	±10%	0.5±0.05	C1005X5R1A683K
100000	±10%	0.5±0.05	C1005X5R1A104K

### TEMPERATURE CHARACTERISTICS: Y5V (+22, -82%)

RATED VOLTAGE E<sub>dc</sub>: 16V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
100000	+80, -20%	0.5±0.05	C1005Y5V1C104Z

RATED VOLTAGE E<sub>dc</sub>: 10V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
220000	+80, -20%	0.5±0.05	C1005Y5V1A224Z

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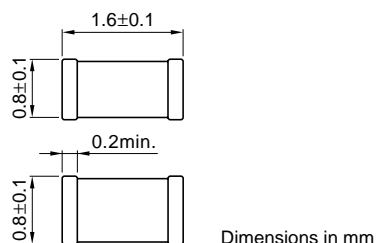
# Ceramic Capacitors

## For General Use

### SMD

## C Series

### C1608 (EIA:CC0603) TYPE SHAPES AND DIMENSIONS



### CAPACITANCE RANGES: CLASS 1 (TEMPERATURE COMPENSATION) TEMPERATURE CHARACTERISTICS: C0G(0±30ppm/°C)

RATED VOLTAGE E<sub>dc</sub>: 50V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
0.5*	±0.25pF	0.8±0.1	C1608C0G1H0R5C
0.75*	±0.25pF	0.8±0.1	C1608C0G1HR75C
1	±0.25pF	0.8±0.1	C1608C0G1H010C
1.5	±0.25pF	0.8±0.1	C1608C0G1H1R5C
2	±0.25pF	0.8±0.1	C1608C0G1H020C
3	±0.25pF	0.8±0.1	C1608C0G1H030C
4	±0.25pF	0.8±0.1	C1608C0G1H040C
5	±0.25pF	0.8±0.1	C1608C0G1H050C
6	±0.5pF	0.8±0.1	C1608C0G1H060D
7	±0.5pF	0.8±0.1	C1608C0G1H070D
8	±0.5pF	0.8±0.1	C1608C0G1H080D
9	±0.5pF	0.8±0.1	C1608C0G1H090D
10	±0.5pF	0.8±0.1	C1608C0G1H100D
12	±5%	0.8±0.1	C1608C0G1H120J
15	±5%	0.8±0.1	C1608C0G1H150J
18	±5%	0.8±0.1	C1608C0G1H180J
22	±5%	0.8±0.1	C1608C0G1H220J
27	±5%	0.8±0.1	C1608C0G1H270J
33	±5%	0.8±0.1	C1608C0G1H330J
39	±5%	0.8±0.1	C1608C0G1H390J
47	±5%	0.8±0.1	C1608C0G1H470J
56	±5%	0.8±0.1	C1608C0G1H560J
68	±5%	0.8±0.1	C1608C0G1H680J
82	±5%	0.8±0.1	C1608C0G1H820J
100	±5%	0.8±0.1	C1608C0G1H101J
120	±5%	0.8±0.1	C1608C0G1H121J
150	±5%	0.8±0.1	C1608C0G1H151J
180	±5%	0.8±0.1	C1608C0G1H181J
220	±5%	0.8±0.1	C1608C0G1H221J
270	±5%	0.8±0.1	C1608C0G1H271J
330	±5%	0.8±0.1	C1608C0G1H331J
390	±5%	0.8±0.1	C1608C0G1H391J
470	±5%	0.8±0.1	C1608C0G1H471J
560	±5%	0.8±0.1	C1608C0G1H561J
680	±5%	0.8±0.1	C1608C0G1H681J
820	±5%	0.8±0.1	C1608C0G1H821J
1000	±5%	0.8±0.1	C1608C0G1H102J

### CAPACITANCE RANGES:

#### CLASS 2

### TEMPERATURE CHARACTERISTICS: X7R (±15%)

RATED VOLTAGE E<sub>dc</sub>: 50V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
220	±10%	0.8±0.1	C1608X7R1H221K
330*	±10%	0.8±0.1	C1608X7R1H331K
470	±10%	0.8±0.1	C1608X7R1H471K
680*	±10%	0.8±0.1	C1608X7R1H681K
1000	±10%	0.8±0.1	C1608X7R1H102K
1500*	±10%	0.8±0.1	C1608X7R1H152K
2200	±10%	0.8±0.1	C1608X7R1H222K
3300*	±10%	0.8±0.1	C1608X7R1H332K
4700	±10%	0.8±0.1	C1608X7R1H472K
6800*	±10%	0.8±0.1	C1608X7R1H682K
10000	±10%	0.8±0.1	C1608X7R1H103K
15000*	±10%	0.8±0.1	C1608X7R1H153K
22000	±10%	0.8±0.1	C1608X7R1H223K
33000*	±10%	0.8±0.1	C1608X7R1H333K
47000	±10%	0.8±0.1	C1608X7R1H473K
68000*	±10%	0.8±0.1	C1608X7R1H683K
100000	±10%	0.8±0.1	C1608X7R1H104K

RATED VOLTAGE E<sub>dc</sub>:25V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
100000	±10%	0.8±0.1	C1608X7R1E104K
150000	±10%	0.8±0.1	C1608X7R1E154K
	±20%	0.8±0.1	C1608X7R1E154M

RATED VOLTAGE E<sub>dc</sub>:16V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
150000	±10%	0.8±0.1	C1608X7R1C154K
	±20%	0.8±0.1	C1608X7R1C154M
220000	±10%	0.8±0.1	C1608X7R1C224K
	±20%	0.8±0.1	C1608X7R1C224M

### TEMPERATURE CHARACTERISTICS: X5R (±15%)

RATED VOLTAGE E<sub>dc</sub>:10V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
220000	±10%	0.8±0.1	C1608X5R1A224K
	±20%	0.8±0.1	C1608X5R1A224M
330000	±10%	0.8±0.1	C1608X5R1A334K
	±20%	0.8±0.1	C1608X5R1A334M
470000	±10%	0.8±0.1	C1608X5R1A474K
	±20%	0.8±0.1	C1608X5R1A474M
680000	±10%	0.8±0.1	C1608X5R1A684K
	±20%	0.8±0.1	C1608X5R1A684M
1000000	±10%	0.8±0.1	C1608X5R1A105K
[1μF]	±20%	0.8±0.1	C1608X5R1A105M

\* These products marked \* are nonstandard.

• For more information about products with other capacitance or other data, please contact us.

# Ceramic Capacitors

C Series

For General Use

SMD

## C1608 (EIA:CC0603) TYPE

### CAPACITANCE RANGES:

#### CLASS 2

#### TEMPERATURE CHARACTERISTICS: Y5V (+22, -82%)

RATED VOLTAGE E<sub>dc</sub>:50V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
100000	+80, -20%	0.8±0.1	C1608Y5V1H104Z

RATED VOLTAGE E<sub>dc</sub>: 16V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
220000	+80, -20%	0.8±0.1	C1608Y5V1C224Z

RATED VOLTAGE E<sub>dc</sub>: 10V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
470000	+80, -20%	0.8±0.1	C1608Y5V1A474Z
1000000 [1μF]	+80, -20%	0.8±0.1	C1608Y5V1A105Z

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# Ceramic Capacitors

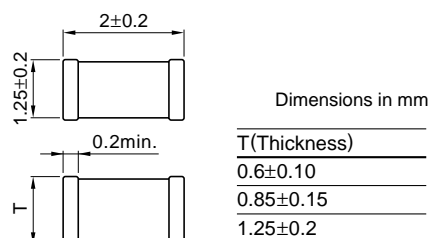
## For General Use

### SMD

## C Series

### C2012 (EIA:CC0805) TYPE

#### SHAPES AND DIMENSIONS



### TEMPERATURE CHARACTERISTICS: X7R (±15%)

RATED VOLTAGE E<sub>dc</sub>: 16V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
330000	±10%	1.25±0.2	C2012X7R1C334K
	±20%	1.25±0.2	C2012X7R1C334M
470000	±10%	1.25±0.2	C2012X7R1C474K
	±20%	1.25±0.2	C2012X7R1C474M
680000	±10%	1.25±0.2	C2012X7R1C684K
	±20%	1.25±0.2	C2012X7R1C684M
1000000 [1μF]	±10%	1.25±0.2	C2012X7R1C105K
	±20%	1.25±0.2	C2012X7R1C105M

### CAPACITANCE RANGES:

#### CLASS 1 (TEMPERATURE COMPENSATION)

#### TEMPERATURE CHARACTERISTICS: C0G(0±30ppm/°C)

RATED VOLTAGE E<sub>dc</sub>: 50V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
1200	±5%	0.6±0.10	C2012C0G1H122J
1500	±5%	0.6±0.10	C2012C0G1H152J
1800	±5%	0.85±0.15	C2012C0G1H182J
2200	±5%	0.85±0.15	C2012C0G1H222J
2700	±5%	1.25±0.2	C2012C0G1H272J
3300	±5%	1.25±0.2	C2012C0G1H332J

### TEMPERATURE CHARACTERISTICS: X5R (±15%)

RATED VOLTAGE E<sub>dc</sub>: 10V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
1000000 [1μF]	±10%	1.25±0.2	C2012X5R1A105K
	±20%	1.25±0.2	C2012X5R1A105M
1500000 [1.5μF]	±10%	1.25±0.2	C2012X5R1A155K
	±20%	1.25±0.2	C2012X5R1A155M
2200000 [2.2μF]	±10%	1.25±0.2	C2012X5R1A225K
	±20%	1.25±0.2	C2012X5R1A225M
3300000 [3.3μF]	±10%	1.25±0.2	C2012X5R1A335K
	±20%	1.25±0.2	C2012X5R1A335M

### CAPACITANCE RANGES:

#### CLASS 2

#### TEMPERATURE CHARACTERISTICS: X7R (±15%)

RATED VOLTAGE E<sub>dc</sub>: 50V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
100000*	±10%	1.25±0.2	C2012X7R1H104K
	±10%	1.25±0.2	C2012X7R1H154K
150000	±20%	1.25±0.2	C2012X7R1H154M
	±10%	1.25±0.2	C2012X7R1H224K
220000	±20%	1.25±0.2	C2012X7R1H224M
	±10%	1.25±0.2	C2012X7R1H334K
330000	±20%	1.25±0.2	C2012X7R1H334M

RATED VOLTAGE E<sub>dc</sub>: 6.3V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
3300000 [3.3μF]	±10%	1.25±0.2	C2012X5R0J335K
	±20%	1.25±0.2	C2012X5R0J335M
4700000 [4.7μF]	±10%	1.25±0.2	C2012X5R0J475K
	±20%	1.25±0.2	C2012X5R0J475M

RATED VOLTAGE E<sub>dc</sub>: 25V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
150000	±10%	1.25±0.2	C2012X7R1E154K
	±20%	1.25±0.2	C2012X7R1E154M
220000	±10%	1.25±0.2	C2012X7R1E224K
	±20%	1.25±0.2	C2012X7R1E224M
330000	±10%	1.25±0.2	C2012X7R1E334K
	±20%	1.25±0.2	C2012X7R1E334M
470000	±10%	1.25±0.2	C2012X7R1E474K
	±20%	1.25±0.2	C2012X7R1E474M

\* These products marked \* are nonstandard.

• For more information about products with other capacitance or other data, please contact us.

# Ceramic Capacitors

For General Use  
SMD

## C Series

### C2012 (EIA:CC0805) TYPE

#### CAPACITANCE RANGES:

#### CLASS 2

#### TEMPERATURE CHARACTERISTICS: Y5V(+22, -82%)

RATED VOLTAGE E<sub>dc</sub>: 50V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
220000	+80, -20%	1.25±0.2	C2012Y5V1H224Z

RATED VOLTAGE E<sub>dc</sub>: 25V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
220000	+80, -20%	0.85±0.15	C2012Y5V1E224Z
470000	+80, -20%	1.25±0.2	C2012Y5V1E474Z
1000000 [1μF]	+80, -20%	1.25±0.2	C2012Y5V1E105Z

RATED VOLTAGE E<sub>dc</sub>: 16V

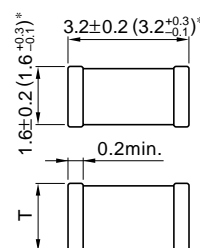
Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
4700000	+80, -20%	0.85±0.15	C2012Y5V1C474Z
1000000 [1μF]	+80, -20%	1.25±0.2	C2012Y5V1C105Z
2200000 [2.2μF]	+80, -20%	1.25±0.2	C2012Y5V1C225Z

RATED VOLTAGE E<sub>dc</sub>: 10V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
3300000 [3.3μF]	+80, -20%	1.25±0.2	C2012Y5V1A335Z
4700000 [4.7μF]	+80, -20%	1.25±0.2	C2012Y5V1A475Z

### C3216 (EIA:CC1206) TYPE

#### SHAPES AND DIMENSIONS



Dimensions in mm

T (Thickness)

0.6±0.15

0.85±0.15

1.15±0.15

1.3±0.2

1.6±0.2 (1.6+0.3/-0.1)\*

\* Figures within ( ) shows dimensions for C3216X5R0J106K, M.



#### CAPACITANCE RANGES:

#### CLASS 1 (TEMPERATURE COMPENSATION)

#### TEMPERATURE CHARACTERISTICS: C0G(0±30ppm/°C)

RATED VOLTAGE E<sub>dc</sub>: 50V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
3900	±5%	0.6±0.15	C3216C0G1H392J
4700	±5%	0.85±0.15	C3216C0G1H472J
5600	±5%	0.85±0.15	C3216C0G1H562J
6800	±5%	1.15±0.15	C3216C0G1H682J
8200	±5%	1.15±0.15	C3216C0G1H822J
10000	±5%	1.15±0.15	C3216C0G1H103J

#### CLASS 2

#### TEMPERATURE CHARACTERISTICS: X7R(±15%)

RATED VOLTAGE E<sub>dc</sub>: 50V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
150000	±10%	1.15±0.15	C3216X7R1H154K
220000	±10%	1.15±0.15	C3216X7R1H224K
	±20%	1.15±0.15	C3216X7R1H224M
330000	±10%	1.15±0.15	C3216X7R1H334K
	±20%	1.15±0.15	C3216X7R1H334M
470000	±10%	1.6±0.2	C3216X7R1H474K
	±20%	1.6±0.2	C3216X7R1H474M

RATED VOLTAGE E<sub>dc</sub>: 25V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
470000	±10%	1.15±0.15	C3216X7R1E474K
	±20%	1.15±0.15	C3216X7R1E474M
680000	±10%	1.6±0.2	C3216X7R1E684K
	±20%	1.6±0.2	C3216X7R1E684M
1000000 [1μF]	±10%	1.6±0.2	C3216X7R1E105K
	±20%	1.6±0.2	C3216X7R1E105M
1500000 [1.5μF]	±10%	1.6±0.2	C3216X7R1E155K
	±20%	1.6±0.2	C3216X7R1E155M
2200000 [2.2μF]	±10%	1.6±0.2	C3216X7R1E225K
	±20%	1.6±0.2	C3216X7R1E225M

- For more information about products with other capacitance or other data, please contact us.

△ Specifications which provide more details for the proper and safe use of the described product are available upon request.  
All specifications are subject to change without notice.

# Ceramic Capacitors

For General Use  
SMD

## C Series

### C3216 (EIA:CC1206) TYPE

#### CAPACITANCE RANGES:

#### CLASS 2

#### TEMPERATURE CHARACTERISTICS: X7R(±15%), X5R(±15%)

#### RATED VOLTAGE Edc: 16V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
1500000	±10%	1.6±0.2	C3216X7R1C155K
[1.5µF]	±20%	1.6±0.2	C3216X7R1C155M
2200000	±10%	1.6±0.2	C3216X7R1C225K
[2.2µF]	±20%	1.6±0.2	C3216X7R1C225M
3300000	±10%	1.6±0.2	C3216X5R1C335K
[3.3µF]	±20%	1.6±0.2	C3216X5R1C335M

#### TEMPERATURE CHARACTERISTICS: X5R (±15%)

#### RATED VOLTAGE Edc: 10V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
2200000	±10%	1.15±0.15	C3216X5R1A225K
[2.2µF]	±20%	1.15±0.15	C3216X5R1A225M
3300000	±10%	1.15±0.15	C3216X5R1A335K
[3.3µF]	±20%	1.15±0.15	C3216X5R1A335M
4700000	±10%	1.6±0.2	C3216X5R1A475K
[4.7µF]	±20%	1.6±0.2	C3216X5R1A475M

#### RATED VOLTAGE Edc: 6.3V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
6800000	±10%	1.6±0.2	C3216X5R0J685K
[6.8µF]	±20%	1.6±0.2	C3216X5R0J685M
10000000	±10%	1.6 <sup>+0.3</sup> <sub>-0.1</sub>	C3216X5R0J106K
[10µF]	±20%	1.6 <sup>+0.3</sup> <sub>-0.1</sub>	C3216X5R0J106M

#### TEMPERATURE CHARACTERISTICS: Y5V(+22, -82%)

#### RATED VOLTAGE Edc: 50V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
470000	+80, -20%	0.85±0.15	C3216Y5V1H474Z
1000000	+80, -20%	1.3±0.2	C3216Y5V1H105Z
[1µF]			

#### RATED VOLTAGE Edc: 25V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
2200000	+80, -20%	1.3±0.2	C3216Y5V1E225Z
[2.2µF]			

#### RATED VOLTAGE Edc: 16V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
4700000	+80, -20%	1.3±0.2	C3216Y5V1C475Z
[4.7µF]			

#### RATED VOLTAGE Edc: 10V

Capacitance (pF)	Tolerance	Thickness (mm)	Part No.
10000000	+80, -20%	1.6±0.3	C3216Y5V1A106Z
[10µF]			
22000000	+80, -20%	1.6±0.3	C3216Y5V1A226Z
[22µF]			

- For more information about products with other capacitance or other data, please contact us.