

C series

General (Up to 75V)



Type: C0402 [01005 inch], C0603 [0201 inch], C1005 [0402 inch], C1608 [0603 inch], C2012 [0805 inch], C3216 [1206 inch], C3225 [1210 inch], C4532 [1812 inch], C5750 [2220 inch]

SERIES OVERVIEW

TDK multilayer ceramic chip capacitor C series is a product for surface mount which multiple sheets of dielectric and conductive material are layered alternately. The monolithic structure ensures superior mechanical strength and reliability. Also the lower ESR, ESL and better frequency characteristics are offered by the simple structure than other capacitors. The capacitance range is up to 100uF and the line-up has been expanding to the region of the film capacitor or electrolytic capacitor.

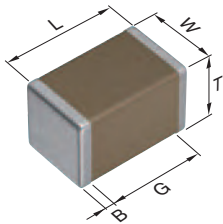
FEATURES

- The superior mechanical strength and reliability due to the monolithic structure.
- Low ESR, ESL and excellent frequency characteristics allow for a circuit design that closely conforms to theoretical values.
- Low self-heating and high ripple resistance due to low ESR.
- No polarity.

APPLICATIONS

- general electronic equipment
- mobile devices
- Servers, PCs, tablets
- Power supply circuit

SHAPE & DIMENSIONS



L	Body length
W	Body width
T	Body height
B	Terminal width
G	Terminal spacing

Dimensions in mm

Type	L	W	T	B	G
C0402	0.40±0.02	0.20±0.02	0.20±0.02	0.07 min.	0.14 min.
C0603	0.60±0.03	0.30±0.03	0.30±0.03	0.10 min.	0.20 min.
C1005	1.00±0.05	0.50±0.05	0.50±0.05	0.10 min.	0.30 min.
C1608	1.60±0.10	0.80±0.10	0.80±0.10	0.20 min.	0.30 min.
C2012	2.00±0.20	1.25±0.20	1.25±0.20	0.20 min.	0.50 min.
C3216	3.20±0.20	1.60±0.20	1.60±0.20	0.20 min.	1.00 min.
C3225	3.20±0.40	2.50±0.30	2.50±0.30	0.20 min.	—
C4532	4.50±0.40	3.20±0.40	3.20±0.40	0.20 min.	—
C5750	5.70±0.40	5.00±0.40	2.80±0.30	0.20 min.	—

*Dimensional tolerances are typical values.

CATALOG NUMBER CONSTRUCTION

C	3216	X5R	1A	107	M	160	A	C
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

勝特力電材超市-龍山店 886-3-5773766
 勝特力電材超市-光復店 886-3-5729570
 勝特力電子(上海) 86-21-34970699
 勝特力電子(深圳) 86-755-83298787
<http://www.100y.com.tw>

(1) Series

(2) Dimensions L x W (mm)

Code	EIA	Length	Width	Terminal width
0402	CC01005	0.40	0.20	0.07
0603	CC0201	0.60	0.30	0.10
1005	CC0402	1.00	0.50	0.10
1608	CC0603	1.60	0.80	0.20
2012	CC0805	2.00	1.25	0.20
3216	CC1206	3.20	1.60	0.20
3225	CC1210	3.20	2.50	0.20
4532	CC1812	4.50	3.20	0.20
5750	CC2220	5.70	5.00	0.20

(3) Temperature characteristics

Temperature characteristics	Temperature coefficient or capacitance change	Temperature range
CH	0±60 ppm/°C	-25 to +85°C
C0G	0±30 ppm/°C	-55 to +125°C
JB	±10%	-25 to +85°C
X5R	±15%	-55 to +85°C
X6S	±22%	-55 to +105°C
X7R	±15%	-55 to +125°C
X7S	±22%	-55 to +125°C

(4) Rated voltage (DC)

Code	Voltage (DC)
0G	4V
0J	6.3V
1A	10V
1C	16V
1E	25V
1V	35V
1H	50V
1N	75V

(5) Nominal capacitance (pF)

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.

(Example) 0R5 = 0.5pF
 101 = 100pF
 225 = 2,200,000pF = 2.2μF

(6) Capacitance tolerance

Code	Tolerance
B	±0.10pF
C	±0.25pF
D	±0.50pF
F	±1%
G	±2%
J	±5%
K	±10%
M	±20%

(7) Thickness

Code	Thickness
020	0.20 mm
030	0.30 mm
050	0.50 mm
060	0.60 mm
080	0.80 mm
085	0.85 mm
115	1.15 mm
125	1.25 mm
130	1.30 mm
160	1.60 mm
200	2.00 mm
230	2.30 mm
250	2.50 mm
280	2.80 mm
320	3.20 mm

(8) Packaging style

Code	Style
A	178mm reel, 4mm pitch
B	178mm reel, 2mm pitch
K	178mm reel, 8mm pitch

(9) Special reserved code

Code	Description
A, B, C	TDK internal code