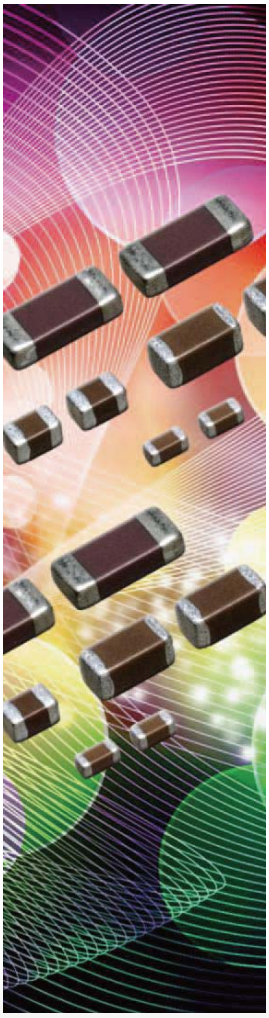
TDK

April 2016

MULTILAYER CERAMIC CHIP CAPACITORS



CGJ Series
High Reliability Grade
General (Up to 50V)

Type:

CGJ2 [EIA CC0402]
CGJ3 [EIA CC0603]
CGJ4 [EIA CC0805]
CGJ5 [EIA CC1206]
CGJ6 [EIA CC1210]

REMINDERS

Please read before using this product

SAFETY REMINDERS

⚠ REMINDERS

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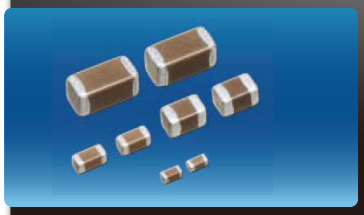
Notice: Effective January 2013, TDK will use a new catalog number which adds product thickness and packaging specification detail. This new catalog number should be referenced on all catalog orders going forward, and is not applicable for OEM part number orders. Please be aware the last five digits of the catalog number will differ from the item description (internal control number) on the product label. Contact your local TDK Sales representative for more information.

(Example)

Catalog Issued date	Catalog Number	Item Description (On Delivery Label)
Prior to January 2013	C1608C0G1E103J(080AA)	C1608C0G1E103JT000N
January 2013 and Later	C1608C0G1E103J080AA	C1608C0G1E103JT000N

MULTILAYER CERAMIC CHIP CAPACITORS

TDK



CGJ Series

General (Up to 50V)

Type: CGJ2 [EIA CC0402], CGJ3 [EIA CC0603], CGJ4 [EIA CC0805], CGJ5 [EIA CC1206], CGJ6 [EIA CC1210]

Lead Free

RoHS COMPLIANT

Ecological

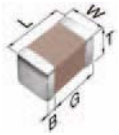
Features

- Highly reliable products with long lifespans.
- Reliability tests based on AEC-Q200 requirements.
- Guaranteed TC Bias.
- UHF (Ultra High Frequency) RFID tag to allow integration with customer RFID programs such as inventory management is availavle by option.
- Tamper proof seal to assist in the identification of authentic TDK CGJ products.
- CGJ customer priority backed by TDK factory support.

Applications

- Smart Meter, Smart Grid, LED Lighting
- Industrial Application, Telecom Base Station
- Solar Micro-inverters, Charging station
- Military Communication Equipment
- Class 1 & 2 Medical Equipment
- Applications that require extended life performance

Shape & Dimensions



L	Body Length
W	Body Width
T	Body Height
B	Terminal Width
G	Terminal Spacing

Catalog Number Construction

CGJ • 5 • L • 2 • X7R • 1A • 106 • K • 160 • A • A

Series Name

Dimensions L x W (mm)

Code	Length	Width	Terminal
2	1.00 ± 0.05	0.50 ± 0.05	0.10 min.
3	1.60 ± 0.10	0.80 ± 0.10	0.20 min.
4	2.00 ± 0.20	1.25 ± 0.20	0.20 min.
5	3.20 ± 0.20	1.60 ± 0.20	0.20 min.
6	3.20 ± 0.40	2.50 ± 0.30	0.20 min.

* Standard dimensions

Thickness T Code (mm)

Code	Thickness
B	0.50 mm
C	0.60 mm
E	0.80 mm
F	0.85 mm
H	1.15 mm
J	1.25 mm
L	1.60 mm
M	2.00 mm
N	2.30 mm
P	2.50 mm

Voltage Condition for Life Test

Symbol	Condition
1	1 × R.V.
2	2 × R.V.
3	1.5 × R.V.
4	1.2 × R.V.

Temperature Characteristics

Temperature Characteristics	Temperature Coefficient or Capacitance Change	Temperature Range
C0G	0±30 ppm/°C	-55 to +125°C
X7R	±15%	-55 to +125°C
X7S	±22%	-55 to +125°C

Rated Voltage (DC)

Code	Voltage (DC)
0J	6.3V
1A	10V
1C	16V
1E	25V
1H	50V

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.

Ex. 0R2 = 0.2pF; 103 = 10,000pF; 105 = 1,000,000pF = 1,000nF = 1µF

Capacitance Tolerance

Code	Tolerance
C	± 0.25 pF
D	± 0.5 pF
J	± 5%
K	± 10%

Nominal Thickness

Code	Thickness
050	0.50 mm
060	0.60 mm
080	0.80 mm
085	0.85 mm
115	1.15 mm
125	1.25 mm
160	1.60 mm
200	2.00 mm
230	2.30 mm
250	2.50 mm

Packaging Style

Code	Style
A	178 mm Reel, 4 mm Pitch
B	178 mm Reel, 2 mm Pitch

Special Reserved Code

Code	Description
A to C	TDK Internal Code

Capacitance Range Chart

CGJ2(1005) [EIA CC0402]

Capacitance Range Chart

Temperature Characteristics: C0G (0 ± 30ppm/℃), X7R (±15%)
Rated Voltage: 50V (1H), 25V (1E), 16V (1C)

Capacitance		Tolerance	C0G	X7R		
(pF)	Code		1H (50V)	1H (50V)	1E (25V)	1C (16V)
1	010	C : ± 0.25pF				
1.5	1R5					
2	020					
2.2	2R2					
3	030					
3.3	3R3					
4	040					
4.7	4R7					
5	050					
6	060	D : ± 0.5pF				
6.8	6R8					
7	070					
8	080					
9	090					
10	100					
12	120	J : ± 5%				
15	150					
18	180					
22	220					
27	270					
33	330					
39	390					
47	470					
56	560					
68	680					
82	820					
100	101					
120	121					
150	151					
180	181					
220	221					
270	271					
330	331					
390	391					
470	471					
560	561					
680	681					
820	821					
1,000	102	C0G; J : ± 5% X7R; K : ± 10%				
1,500	152					
2,200	222					
3,300	332					
4,700	472					
6,800	682					
10,000	103					
15,000	153					
22,000	223					
33,000	333					
47,000	473					
68,000	683					
100,000	104					

Standard Thickness 0.50 mm

Capacitance Range Chart

CGJ3(1608) [EIA CC0603]

Capacitance Range Chart

Temperature Characteristics: C0G (0 ± 30ppm/℃), X7R (±15%)
Rated Voltage: 50V (1H), 25V (1E), 16V (1C), 10V (1A), 6.3V (0J)

Capacitance		Tolerance	C0G	X7R				
(pF)	Code		1H (50V)	1H (50V)	1E (25V)	1C (16V)	1A (10V)	0J (6.3V)
1	010	C: ± 0.25pF						
1.5	1R5							
2	020							
2.2	2R2							
3	030							
3.3	3R3							
4	040							
4.7	4R7							
5	050							
6	060	D: ± 0.5pF						
6.8	6R8							
7	070							
8	080							
9	090							
10	100							
12	120	J : ± 5%						
15	150							
18	180							
22	220							
27	270							
33	330							
39	390							
47	470							
56	560							
68	680							
82	820							
100	101							
120	121							
150	151							
180	181							
220	221							
270	271							
330	331							
390	391							
470	471							
560	561							
680	681							
820	821							
1,000	102							
1,200	122							
1,500	152							
1,800	182							
2,200	222							
2,700	272							
3,300	332							
3,900	392							
4,700	472							
5,600	562							
6,800	682							
8,200	822							
10,000	103	C0G;						
15,000	153	J : ± 5%						
22,000	223							
33,000	333	X7R;						
47,000	473	K : ± 10%						
68,000	683							
100,000	104							
150,000	154							
220,000	224							
330,000	334							
470,000	474							
680,000	684							
1,000,000	105							
1,500,000	155							
2,200,000	225							

Standard Thickness
0.80 mm

Capacitance Range Chart

CGJ4(2012) [EIA CC0805]

Capacitance Range Chart

Temperature Characteristics: C0G (0 ± 30ppm/℃), X7R (±15%)
Rated Voltage: 50V (1H), 25V (1E), 16V (1C), 10V (1A), 6.3V (0J)

Capacitance		Tolerance	C0G	X7R				
(pF)	Code		1H (50V)	1H (50V)	1E (25V)	1C (16V)	1A (10V)	0J (6.3V)
100	101	J : ± 5%						
120	121							
150	151							
180	181							
220	221							
270	271							
330	331							
390	391							
470	471							
560	561							
680	681							
820	821							
1,000	102							
1,200	122							
1,500	152							
1,800	182							
2,200	222							
2,700	272							
3,300	332							
3,900	392							
4,700	472							
5,600	562							
6,800	682							
8,200	822							
10,000	103							
15,000	153							
22,000	223							
33,000	333	C0G; J : ± 5% X7R; K : ± 10%						
47,000	473							
68,000	683							
100,000	104							
150,000	154							
220,000	224							
330,000	334							
470,000	474							
680,000	684							
1,000,000	105							
1,500,000	155							
2,200,000	225							
3,300,000	335							
4,700,000	475							
6,800,000	685							
10,000,000	106							

Standard Thickness
0.60 mm
0.85 mm
1.25 mm

Capacitance Range Chart

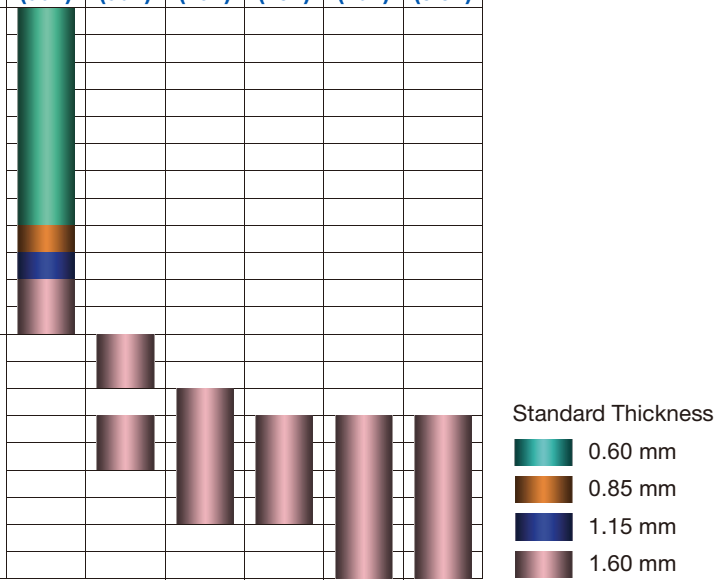
CGJ5(3216) [EIA CC1206]

Capacitance Range Chart

Temperature Characteristics: C0G (0 ± 30ppm/℃), X7R (±15%)

Rated Voltage: 50V (1H), 25V (1E), 16V (1C), 10V (1A), 6.3V (0J)

Capacitance		Tolerance	C0G	X7R				
(pF)	Code		1H (50V)	1H (50V)	1E (25V)	1C (16V)	1A (10V)	0J (6.3V)
3,900	392	J : ± 5%						
4,700	472							
5,600	562							
6,800	682							
8,200	822							
10,000	103							
15,000	153							
22,000	223							
33,000	333							
47,000	473							
68,000	683							
100,000	104							
470,000	474	K: ± 10%						
680,000	684							
1,000,000	105							
1,500,000	155							
2,200,000	225							
3,300,000	335							
4,700,000	475							
6,800,000	685							
10,000,000	106							



Standard Thickness

- 0.60 mm
- 0.85 mm
- 1.15 mm
- 1.60 mm

Capacitance Range Chart

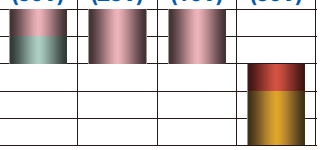
CGJ6(3225) [EIA CC1210]

Capacitance Range Chart

Temperature Characteristics: X7R (±15%), X7S (±22%)

Rated Voltage: 50V (1H), 25V (1E), 16V (1C)

Capacitance		Tolerance	X7R			X7S
(pF)	Code		1H (50V)	1E (25V)	1C (16V)	1H (50V)
1,000,000	105	K: ± 10%				
1,500,000	155					
4,700,000	475					
6,800,000	685					
10,000,000	106					



Standard Thickness

- 1.60 mm
- 2.00 mm
- 2.30 mm
- 2.50 mm

Capacitance Range Table

Class 1 (Temperature Compensating)

Temperature Characteristics: C0G(-55 to +125℃, 0 ± 30 ppm/℃)

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number Rated Voltage Edc: 50V
1 pF	1005	0.50 ± 0.05	± 0.25pF	CGJ2B2C0G1H010C050BA
	1608	0.80 ± 0.10	± 0.25pF	CGJ3E2C0G1H010C080AA
1.5 pF	1005	0.50 ± 0.05	± 0.25pF	CGJ2B2C0G1H1R5C050BA
	1608	0.80 ± 0.10	± 0.25pF	CGJ3E2C0G1H1R5C080AA
2 pF	1005	0.50 ± 0.05	± 0.25pF	CGJ2B2C0G1H020C050BA
	1608	0.80 ± 0.10	± 0.25pF	CGJ3E2C0G1H020C080AA
2.2 pF	1005	0.50 ± 0.05	± 0.25pF	CGJ2B2C0G1H2R2C050BA
	1608	0.80 ± 0.10	± 0.25pF	CGJ3E2C0G1H2R2C080AA
3 pF	1005	0.50 ± 0.05	± 0.25pF	CGJ2B2C0G1H030C050BA
	1608	0.80 ± 0.10	± 0.25pF	CGJ3E2C0G1H030C080AA
3.3 pF	1005	0.50 ± 0.05	± 0.25pF	CGJ2B2C0G1H3R3C050BA
	1608	0.80 ± 0.10	± 0.25pF	CGJ3E2C0G1H3R3C080AA
4 pF	1005	0.50 ± 0.05	± 0.25pF	CGJ2B2C0G1H040C050BA
	1608	0.80 ± 0.10	± 0.25pF	CGJ3E2C0G1H040C080AA
4.7 pF	1005	0.50 ± 0.05	± 0.25pF	CGJ2B2C0G1H4R7C050BA
	1608	0.80 ± 0.10	± 0.25pF	CGJ3E2C0G1H4R7C080AA
5 pF	1005	0.50 ± 0.05	± 0.25pF	CGJ2B2C0G1H050C050BA
	1608	0.80 ± 0.10	± 0.25pF	CGJ3E2C0G1H050C080AA
6 pF	1005	0.50 ± 0.05	± 0.5pF	CGJ2B2C0G1H060D050BA
	1608	0.80 ± 0.10	± 0.5pF	CGJ3E2C0G1H060D080AA
6.8 pF	1005	0.50 ± 0.05	± 0.5pF	CGJ2B2C0G1H6R8D050BA
	1608	0.80 ± 0.10	± 0.5pF	CGJ3E2C0G1H6R8D080AA
7 pF	1005	0.50 ± 0.05	± 0.5pF	CGJ2B2C0G1H070D050BA
	1608	0.80 ± 0.10	± 0.5pF	CGJ3E2C0G1H070D080AA
8 pF	1005	0.50 ± 0.05	± 0.5pF	CGJ2B2C0G1H080D050BA
	1608	0.80 ± 0.10	± 0.5pF	CGJ3E2C0G1H080D080AA
9 pF	1005	0.50 ± 0.05	± 0.5pF	CGJ2B2C0G1H090D050BA
	1608	0.80 ± 0.10	± 0.5pF	CGJ3E2C0G1H090D080AA
10 pF	1005	0.50 ± 0.05	± 0.5pF	CGJ2B2C0G1H100D050BA
	1608	0.80 ± 0.10	± 0.5pF	CGJ3E2C0G1H100D080AA
12 pF	1005	0.50 ± 0.05	± 5pF	CGJ2B2C0G1H120J050BA
	1608	0.80 ± 0.10	± 5pF	CGJ3E2C0G1H120J080AA
15 pF	1005	0.50 ± 0.05	± 5pF	CGJ2B2C0G1H150J050BA
	1608	0.80 ± 0.10	± 5pF	CGJ3E2C0G1H150J080AA
18 pF	1005	0.50 ± 0.05	± 5pF	CGJ2B2C0G1H180J050BA
	1608	0.80 ± 0.10	± 5pF	CGJ3E2C0G1H180J080AA
22 pF	1005	0.50 ± 0.05	± 5pF	CGJ2B2C0G1H220J050BA
	1608	0.80 ± 0.10	± 5pF	CGJ3E2C0G1H220J080AA
27 pF	1005	0.50 ± 0.05	± 5pF	CGJ2B2C0G1H270J050BA
	1608	0.80 ± 0.10	± 5pF	CGJ3E2C0G1H270J080AA
33 pF	1005	0.50 ± 0.05	± 5pF	CGJ2B2C0G1H330J050BA
	1608	0.80 ± 0.10	± 5pF	CGJ3E2C0G1H330J080AA
39 pF	1005	0.50 ± 0.05	± 5pF	CGJ2B2C0G1H390J050BA
	1608	0.80 ± 0.10	± 5pF	CGJ3E2C0G1H390J080AA
47 pF	1005	0.50 ± 0.05	± 5pF	CGJ2B2C0G1H470J050BA
	1608	0.80 ± 0.10	± 5pF	CGJ3E2C0G1H470J080AA
56 pF	1005	0.50 ± 0.05	± 5pF	CGJ2B2C0G1H560J050BA
	1608	0.80 ± 0.10	± 5pF	CGJ3E2C0G1H560J080AA
68 pF	1005	0.50 ± 0.05	± 5pF	CGJ2B2C0G1H680J050BA
	1608	0.80 ± 0.10	± 5pF	CGJ3E2C0G1H680J080AA
82 pF	1005	0.50 ± 0.05	± 5pF	CGJ2B2C0G1H820J050BA
	1608	0.80 ± 0.10	± 5pF	CGJ3E2C0G1H820J080AA
100 pF	1005	0.50 ± 0.05	± 5%	CGJ2B2C0G1H101J050BA
	1608	0.80 ± 0.10	± 5%	CGJ3E2C0G1H101J080AA
	2012	0.60 ± 0.15	± 5%	CGJ4C2C0G1H101J060AA
120 pF	1005	0.50 ± 0.05	± 5%	CGJ2B2C0G1H121J050BA
	1608	0.80 ± 0.10	± 5%	CGJ3E2C0G1H121J080AA
	2012	0.60 ± 0.15	± 5%	CGJ4C2C0G1H121J060AA
150 pF	1005	0.50 ± 0.05	± 5%	CGJ2B2C0G1H151J050BA
	1608	0.80 ± 0.10	± 5%	CGJ3E2C0G1H151J080AA
	2012	0.60 ± 0.15	± 5%	CGJ4C2C0G1H151J060AA

Capacitance Range Table

Class 1 (Temperature Compensating)

Temperature Characteristics: C0G(-55 to +125℃, 0 ± 30 ppm/℃)

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number
				Rated Voltage Edc: 50V
180 pF	1005	0.50 ± 0.05	± 5%	CGJ2B2C0G1H181J050BA
	1608	0.80 ± 0.10	± 5%	CGJ3E2C0G1H181J080AA
	2012	0.60 ± 0.15	± 5%	CGJ4C2C0G1H181J060AA
220 pF	1005	0.50 ± 0.05	± 5%	CGJ2B2C0G1H221J050BA
	1608	0.80 ± 0.10	± 5%	CGJ3E2C0G1H221J080AA
	2012	0.60 ± 0.15	± 5%	CGJ4C2C0G1H221J060AA
270 pF	1005	0.50 ± 0.05	± 5%	CGJ2B2C0G1H271J050BA
	1608	0.80 ± 0.10	± 5%	CGJ3E2C0G1H271J080AA
	2012	0.60 ± 0.15	± 5%	CGJ4C2C0G1H271J060AA
330 pF	1005	0.50 ± 0.05	± 5%	CGJ2B2C0G1H331J050BA
	1608	0.80 ± 0.10	± 5%	CGJ3E2C0G1H331J080AA
	2012	0.60 ± 0.15	± 5%	CGJ4C2C0G1H331J060AA
390 pF	1005	0.50 ± 0.05	± 5%	CGJ2B2C0G1H391J050BA
	1608	0.80 ± 0.10	± 5%	CGJ3E2C0G1H391J080AA
	2012	0.60 ± 0.15	± 5%	CGJ4C2C0G1H391J060AA
470 pF	1005	0.50 ± 0.05	± 5%	CGJ2B2C0G1H471J050BA
	1608	0.80 ± 0.10	± 5%	CGJ3E2C0G1H471J080AA
	2012	0.60 ± 0.15	± 5%	CGJ4C2C0G1H471J060AA
560 pF	1005	0.50 ± 0.05	± 5%	CGJ2B2C0G1H561J050BA
	1608	0.80 ± 0.10	± 5%	CGJ3E2C0G1H561J080AA
	2012	0.60 ± 0.15	± 5%	CGJ4C2C0G1H561J060AA
680 pF	1005	0.50 ± 0.05	± 5%	CGJ2B2C0G1H681J050BA
	1608	0.80 ± 0.10	± 5%	CGJ3E2C0G1H681J080AA
	2012	0.60 ± 0.15	± 5%	CGJ4C2C0G1H681J060AA
820 pF	1005	0.50 ± 0.05	± 5%	CGJ2B2C0G1H821J050BA
	1608	0.80 ± 0.10	± 5%	CGJ3E2C0G1H821J080AA
	2012	0.60 ± 0.15	± 5%	CGJ4C2C0G1H821J060AA
1 nF	1005	0.50 ± 0.05	± 5%	CGJ2B2C0G1H102J050BA
	1608	0.80 ± 0.10	± 5%	CGJ3E2C0G1H102J080AA
	2012	0.60 ± 0.15	± 5%	CGJ4C2C0G1H102J060AA
1.2 nF	1608	0.80 ± 0.10	± 5%	CGJ3E2C0G1H122J080AA
	2012	0.60 ± 0.15	± 5%	CGJ4C2C0G1H122J060AA
1.5 nF	1608	0.80 ± 0.10	± 5%	CGJ3E2C0G1H152J080AA
	2012	0.60 ± 0.15	± 5%	CGJ4C2C0G1H152J060AA
1.8 nF	1608	0.80 ± 0.10	± 5%	CGJ3E2C0G1H182J080AA
	2012	0.60 ± 0.15	± 5%	CGJ4C2C0G1H182J060AA
2.2 nF	1608	0.80 ± 0.10	± 5%	CGJ3E2C0G1H222J080AA
	2012	0.60 ± 0.15	± 5%	CGJ4C2C0G1H222J060AA
2.7 nF	1608	0.80 ± 0.10	± 5%	CGJ3E2C0G1H272J080AA
	2012	0.60 ± 0.15	± 5%	CGJ4C2C0G1H272J060AA
3.3 nF	1608	0.80 ± 0.10	± 5%	CGJ3E2C0G1H332J080AA
	2012	0.60 ± 0.15	± 5%	CGJ4C2C0G1H332J060AA
3.9 nF	1608	0.80 ± 0.10	± 5%	CGJ3E2C0G1H392J080AA
	2012	0.60 ± 0.15	± 5%	CGJ4C2C0G1H392J060AA
	3216	0.60 ± 0.15	± 5%	CGJ5C2C0G1H392J060AA
4.7 nF	1608	0.80 ± 0.10	± 5%	CGJ3E2C0G1H472J080AA
	2012	0.60 ± 0.15	± 5%	CGJ4C2C0G1H472J060AA
	3216	0.60 ± 0.15	± 5%	CGJ5C2C0G1H472J060AA
5.6 nF	1608	0.80 ± 0.10	± 5%	CGJ3E2C0G1H562J080AA
	2012	0.60 ± 0.15	± 5%	CGJ4C2C0G1H562J060AA
	3216	0.60 ± 0.15	± 5%	CGJ5C2C0G1H562J060AA
6.8 nF	1608	0.80 ± 0.10	± 5%	CGJ3E2C0G1H682J080AA
	2012	0.60 ± 0.15	± 5%	CGJ4C2C0G1H682J060AA
	3216	0.60 ± 0.15	± 5%	CGJ5C2C0G1H682J060AA
8.2 nF	1608	0.80 ± 0.10	± 5%	CGJ3E2C0G1H822J080AA
	2012	0.60 ± 0.15	± 5%	CGJ4C2C0G1H822J060AA
	3216	0.60 ± 0.15	± 5%	CGJ5C2C0G1H822J060AA
10 nF	1608	0.80 ± 0.10	± 5%	CGJ3E2C0G1H103J080AA
	2012	0.60 ± 0.15	± 5%	CGJ4C2C0G1H103J060AA
	3216	0.60 ± 0.15	± 5%	CGJ5C2C0G1H103J060AA

Capacitance Range Table

Class 1 (Temperature Compensating)

Temperature Characteristics: C0G(-55 to +125℃, 0 ± 30 ppm/℃)

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number
				Rated Voltage Edc: 50V
15 nF	2012	0.85 ± 0.15	± 5%	CGJ4F2C0G1H153J085AA
	3216	0.60 ± 0.15	± 5%	CGJ5C2C0G1H153J060AA
22 nF	2012	1.25 ± 0.20	± 5%	CGJ4J2C0G1H223J125AA
	3216	0.60 ± 0.15	± 5%	CGJ5C2C0G1H223J060AA
33 nF	2012	1.25 ± 0.20	± 5%	CGJ4J2C0G1H333J125AA
	3216	0.85 ± 0.15	± 5%	CGJ5F2C0G1H333J085AA
47 nF	3216	1.15 ± 0.15	± 5%	CGJ5H2C0G1H473J115AA
68 nF	3216	1.60 ± 0.20	± 5%	CGJ5L2C0G1H683J160AA
100 nF	3216	1.60 ± 0.20	± 5%	CGJ5L2C0G1H104J160AA

Class 2 (Temperature Stable)

Temperature Characteristics: X7R(-55 to +125℃, ±15%)

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number			
				Rated Voltage Edc: 50V	Rated Voltage Edc: 25V	Rated Voltage Edc: 16V	Rated Voltage Edc: 10V
1 nF	1005	0.50 ± 0.05	± 10%	CGJ2B2X7R1H102K050BA	CGJ2B2X7R1E102K050BA	CGJ2B2X7R1C102K050BA	
1.5 nF	1005	0.50 ± 0.05	± 10%	CGJ2B2X7R1H152K050BA	CGJ2B2X7R1E152K050BA	CGJ2B2X7R1C152K050BA	
2.2 nF	1005	0.50 ± 0.05	± 10%	CGJ2B2X7R1H222K050BA	CGJ2B2X7R1E222K050BA	CGJ2B2X7R1C222K050BA	
3.3 nF	1005	0.50 ± 0.05	± 10%	CGJ2B2X7R1H332K050BA	CGJ2B2X7R1E332K050BA	CGJ2B2X7R1C332K050BA	
4.7 nF	1005	0.50 ± 0.05	± 10%	CGJ2B2X7R1H472K050BA	CGJ2B2X7R1E472K050BA	CGJ2B2X7R1C472K050BA	
6.8 nF	1005	0.50 ± 0.05	± 10%	CGJ2B2X7R1H682K050BA	CGJ2B2X7R1E682K050BA	CGJ2B2X7R1C682K050BA	
10 nF	1005	0.50 ± 0.05	± 10%	CGJ2B3X7R1H103K050BB	CGJ2B2X7R1E103K050BA	CGJ2B2X7R1C103K050BA	
	1608	0.80 ± 0.10	± 10%	CGJ3E2X7R1H103K080AA	CGJ3E2X7R1E103K080AA	CGJ3E2X7R1C103K080AA	
15 nF	1005	0.50 ± 0.05	± 10%	CGJ2B3X7R1H153K050BB	CGJ2B2X7R1E153K050BA	CGJ2B2X7R1C153K050BA	
	1608	0.80 ± 0.10	± 10%	CGJ3E2X7R1H153K080AA	CGJ3E2X7R1E153K080AA	CGJ3E2X7R1C153K080AA	
22 nF	1005	0.50 ± 0.05	± 10%	CGJ2B3X7R1H223K050BB	CGJ2B2X7R1E223K050BA	CGJ2B2X7R1C223K050BA	
	1608	0.80 ± 0.10	± 10%	CGJ3E2X7R1H223K080AA	CGJ3E2X7R1E223K080AA	CGJ3E2X7R1C223K080AA	
33 nF	1005	0.50 ± 0.05	± 10%	CGJ2B3X7R1H333K050BB	CGJ2B2X7R1E333K050BA	CGJ2B2X7R1C333K050BA	
	1608	0.80 ± 0.10	± 10%	CGJ3E2X7R1H333K080AA	CGJ3E2X7R1E333K080AA	CGJ3E2X7R1C333K080AA	
	2012	1.25 ± 0.20	± 10%	CGJ4J2X7R1H333K125AA	CGJ4J2X7R1E333K125AA	CGJ4J2X7R1C333K125AA	
47 nF	1005	0.50 ± 0.05	± 10%	CGJ2B3X7R1H473K050BB	CGJ2B2X7R1E473K050BA	CGJ2B2X7R1C473K050BA	
	1608	0.80 ± 0.10	± 10%	CGJ3E2X7R1H473K080AA	CGJ3E2X7R1E473K080AA	CGJ3E2X7R1C473K080AA	
	2012	1.25 ± 0.20	± 10%	CGJ4J2X7R1H473K125AA	CGJ4J2X7R1E473K125AA	CGJ4J2X7R1C473K125AA	
68 nF	1005	0.50 ± 0.05	± 10%		CGJ2B3X7R1E683K050BB	CGJ2B2X7R1C683K050BA	
	1608	0.80 ± 0.10	± 10%	CGJ3E2X7R1H683K080AA	CGJ3E2X7R1E683K080AA	CGJ3E2X7R1C683K080AA	
	2012	1.25 ± 0.20	± 10%	CGJ4J2X7R1H683K125AA	CGJ4J2X7R1E683K125AA	CGJ4J2X7R1C683K125AA	
100 nF	1005	0.50 ± 0.05	± 10%		CGJ2B3X7R1E104K050BB	CGJ2B2X7R1C104K050BA	
	1608	0.80 ± 0.10	± 10%	CGJ3E2X7R1H104K080AA	CGJ3E2X7R1E104K080AA	CGJ3E2X7R1C104K080AA	
	2012	1.25 ± 0.20	± 10%	CGJ4J2X7R1H104K125AA	CGJ4J2X7R1E104K125AA	CGJ4J2X7R1C104K125AA	
150 nF	1608	0.80 ± 0.10	± 10%	CGJ3E3X7R1H154K080AB	CGJ3E2X7R1E154K080AA	CGJ3E2X7R1C154K080AA	
	2012	1.25 ± 0.20	± 10%	CGJ4J2X7R1H154K125AA	CGJ4J2X7R1E154K125AA	CGJ4J2X7R1C154K125AA	
220 nF	1608	0.80 ± 0.10	± 10%	CGJ3E3X7R1H224K080AB	CGJ3E2X7R1E224K080AA	CGJ3E2X7R1C224K080AA	
	2012	1.25 ± 0.20	± 10%	CGJ4J2X7R1H224K125AA	CGJ4J2X7R1E224K125AA	CGJ4J2X7R1C224K125AA	CGJ4J2X7R1A224K125AA
330 nF	1608	0.80 ± 0.10	± 10%		CGJ3E3X7R1E334K080AB	CGJ3E2X7R1C334K080AA	CGJ3E2X7R1A334K080AA
	2012	1.25 ± 0.20	± 10%	CGJ4J2X7R1H334K125AA	CGJ4J2X7R1E334K125AA	CGJ4J2X7R1C334K125AA	CGJ4J2X7R1A334K125AA
470 nF	1608	0.80 ± 0.10	± 10%		CGJ3E3X7R1E474K080AB	CGJ3E2X7R1C474K080AA	CGJ3E2X7R1A474K080AA
	2012	1.25 ± 0.20	± 10%	CGJ4J3X7R1H474K125AB	CGJ4J2X7R1E474K125AA	CGJ4J2X7R1C474K125AA	CGJ4J2X7R1A474K125AA
	3216	1.60 +0.30/-0.10	± 10%	CGJ5L2X7R1H474K160AA			
680 nF	1608	0.80 ± 0.10	± 10%		CGJ3E1X7R1E684K080AC	CGJ3E3X7R1C684K080AB	CGJ3E2X7R1A684K080AA
	2012	1.25 ± 0.20	± 10%	CGJ4J3X7R1H684K125AB	CGJ4J2X7R1E684K125AA	CGJ4J2X7R1C684K125AA	CGJ4J2X7R1A684K125AA
	3216	1.60 +0.30/-0.10	± 10%	CGJ5L2X7R1H684K160AA			
1 µF	1608	0.80 ± 0.10	± 10%		CGJ3E1X7R1E105K080AC	CGJ3E3X7R1C105K080AB	CGJ3E2X7R1A105K080AA
	2012	1.25 ± 0.20	± 10%	CGJ4J3X7R1H105K125AB	CGJ4J2X7R1E105K125AA	CGJ4J2X7R1C105K125AA	CGJ4J2X7R1A105K125AA
	3216	1.60 +0.30/-0.10	± 10%		CGJ5L2X7R1E105K160AA		
	3225	1.60 ± 0.20	± 10%	CGJ6L2X7R1H105K160AA	CGJ6L2X7R1E105K160AA	CGJ6L2X7R1C105K160AA	
1.5 µF	2012	1.25 ± 0.20	± 10%		CGJ4J3X7R1E155K125AB	CGJ4J2X7R1C155K125AA	CGJ4J2X7R1A155K125AA
	3216	1.60 +0.30/-0.10	± 10%	CGJ5L3X7R1H155K160AB	CGJ5L2X7R1E155K160AA	CGJ5L2X7R1C155K160AA	CGJ5L2X7R1A155K160AA
	3225	1.60 ± 0.20	± 10%		CGJ6L2X7R1E155K160AA	CGJ6L2X7R1C155K160AA	
		2.00 ± 0.20	± 10%	CGJ6M2X7R1H155K200AA			

Capacitance Range Table

Class 2 (Temperature Stable)

Temperature Characteristics: X7R(-55 to +125℃, ±15%)

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number			
				Rated Voltage Edc: 50V	Rated Voltage Edc: 25V	Rated Voltage Edc: 16V	Rated Voltage Edc: 10V
2.2 µF	2012	1.25 ± 0.20	± 10%		CGJ4J3X7R1E225K125AB	CGJ4J2X7R1C225K125AA	CGJ4J2X7R1A225K125AA
	3216	1.60 +0.30/-0.10	± 10%	CGJ5L3X7R1H225K160AB	CGJ5L2X7R1E225K160AA	CGJ5L2X7R1C225K160AA	CGJ5L2X7R1A225K160AA
3.3 µF	2012	1.25 ± 0.20	± 10%		CGJ4J1X7R1E335K125AC	CGJ4J3X7R1C335K125AB	CGJ4J2X7R1A335K125AA
	3216	1.60 +0.30/-0.10	± 10%		CGJ5L3X7R1E335K160AB	CGJ5L2X7R1C335K160AA	CGJ5L2X7R1A335K160AA
4.7 µF	2012	1.25 ± 0.20	± 10%		CGJ4J1X7R1E475K125AC	CGJ4J3X7R1C475K125AB	CGJ4J2X7R1A475K125AA
	3216	1.60 +0.30/-0.10	± 10%		CGJ5L3X7R1E475K160AB	CGJ5L2X7R1C475K160AA	CGJ5L2X7R1A475K160AA
6.8 µF	3216	1.60 +0.30/-0.10	± 10%				CGJ5L2X7R1A685K160AA
10 µF	3216	1.60 +0.30/-0.10	± 10%				CGJ5L2X7R1A106K160AA

Class 2 (Temperature Stable)

Temperature Characteristics: X7R(-55 to +125℃, ±15%)

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number
				Rated Voltage Edc: 6.3V
220 nF	2012	1.25 ± 0.20	± 10%	CGJ4J2X7R0J224K125AA
330 nF	1608	0.80 ± 0.10	± 10%	CGJ3E2X7R0J334K080AA
	2012	1.25 ± 0.20	± 10%	CGJ4J2X7R0J334K125AA
470 nF	1608	0.80 ± 0.10	± 10%	CGJ3E2X7R0J474K080AA
	2012	1.25 ± 0.20	± 10%	CGJ4J2X7R0J474K125AA
680 nF	1608	0.80 ± 0.10	± 10%	CGJ3E2X7R0J684K080AA
	2012	1.25 ± 0.20	± 10%	CGJ4J2X7R0J684K125AA
1 µF	1608	0.80 ± 0.10	± 10%	CGJ3E2X7R0J105K080AA
	2012	1.25 ± 0.20	± 10%	CGJ4J2X7R0J105K125AA
1.5 µF	1608	0.80 ± 0.10	± 10%	CGJ3E1X7R0J155K080AC
	2012	1.25 ± 0.20	± 10%	CGJ4J2X7R0J155K125AA
	3216	1.60 +0.30/-0.10	± 10%	CGJ5L2X7R0J155K160AA
2.2 µF	1608	0.80 ± 0.10	± 10%	CGJ3E1X7R0J225K080AC
	2012	1.25 ± 0.20	± 10%	CGJ4J2X7R0J225K125AA
	3216	1.60 +0.30/-0.10	± 10%	CGJ5L2X7R0J225K160AA
3.3 µF	2012	1.25 ± 0.20	± 10%	CGJ4J2X7R0J335K125AA
	3216	1.60 +0.30/-0.10	± 10%	CGJ5L2X7R0J335K160AA
4.7 µF	2012	1.25 ± 0.20	± 10%	CGJ4J2X7R0J475K125AA
	3216	1.60 +0.30/-0.10	± 10%	CGJ5L2X7R0J475K160AA
6.8 µF	2012	1.25 ± 0.20	± 10%	CGJ4J1X7R0J685K125AC
	3216	1.60 +0.30/-0.10	± 10%	CGJ5L2X7R0J685K160AA
10 µF	2012	1.25 ± 0.20	± 10%	CGJ4J1X7R0J106K125AC
	3216	1.60 +0.30/-0.10	± 10%	CGJ5L2X7R0J106K160AA

Class 2 (Temperature Stable)

Temperature Characteristics: X7S(-55 to +125℃, ±22%)

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number
				Rated Voltage Edc: 50V
4.7 µF	3225	2.30 ± 0.20	± 10%	CGJ6N3X7S1H475K230AB
6.8 µF	3225	2.50 ± 0.30	± 10%	CGJ6P3X7S1H685K250AB
10 µF	3225	2.50 ± 0.30	± 10%	CGJ6P3X7S1H106K250AB