



**THE DATASHEET OF  
CGA3E2C0G1H332J080AA**



# MULTILAYER CERAMIC CHIP CAPACITORS

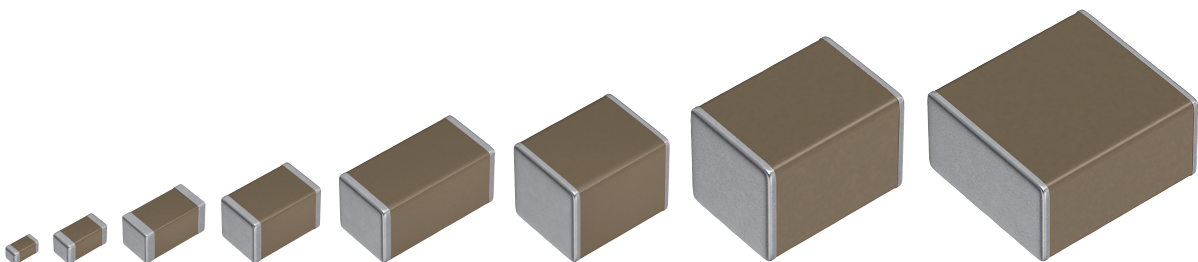
Automotive grade, general (Up to 75V)

## CGA series

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<b>CGA1</b>	<b>0603 [EIA 0201]</b>
<b>CGA2</b>	<b>1005 [EIA 0402]</b>
<b>CGA3</b>	<b>1608 [EIA 0603]</b>
<b>CGA4</b>	<b>2012 [EIA 0805]</b>
<b>CGA5</b>	<b>3216 [EIA 1206]</b>
<b>CGA6</b>	<b>3225 [EIA 1210]</b>
<b>CGA8</b>	<b>4532 [EIA 1812]</b>
<b>CGA9</b>	<b>5750 [EIA 2220]</b>

\* Dimensions code: JIS[EIA]



## Reminders for using these products

Before using these products, be sure to request the delivery specifications.

### SAFETY REMINDERS

Please pay sufficient attention to the warnings for safe designing when using this products.

### REMINDERS

1. The products listed in this specification are intended for use in automotive applications under normal operation and usage conditions. The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality requires a more stringent level of safety or reliability, or whose failure, malfunction or defect could cause serious damage to society, person or property.

Please understand that we are not responsible for any damage or liability caused by use of the products in any of the applications below or for any other use exceeding the range or conditions set forth in this specification sheet. If you intend to use the products in the applications listed below or if you have special requirements exceeding the range or conditions set forth in this specification, please contact us.

- |                                                                                      |                                                                              |
|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| (1) Aerospace/aviation equipment                                                     | (7) Transportation control equipment                                         |
| (2) Transportation equipment (electric trains, ships, etc.)                          | (8) Public information-processing equipment                                  |
| (3) Medical equipment (excepting Pharmaceutical Affairs Law classification Class1,2) | (9) Military equipment                                                       |
| (4) Power-generation control equipment                                               | (10) Electric heating apparatus, burning equipment                           |
| (5) Atomic energy-related equipment                                                  | (11) Disaster prevention/crime prevention equipment                          |
| (6) Seabed equipment                                                                 | (12) Safety equipment                                                        |
|                                                                                      | (13) Other applications that are not considered general-purpose applications |

When designing your equipment even for general-purpose applications, you are kindly requested to take into consideration securing protection circuit/device or providing backup circuits in your equipment.

- We may modify products or discontinue production of a product listed in this catalog without prior notification.
- We provide "Delivery Specification" that explain precautions for the specifications and safety of each product listed in this catalog. We strongly recommend that you exchange these delivery specifications with customers that use one of these products.
- If you plan to export a product listed in this catalog, keep in mind that it may be a restricted item according to the "Foreign Exchange and Foreign Trade Control Law". In such cases, it is necessary to acquire export permission in harmony with this law.
- Any reproduction or transferring of the contents of this catalog is prohibited without prior permission from our company.
- We are not responsible for problems that occur related to the intellectual property rights or other rights of our company or a third party when you use a product listed in this catalog. We do not grant license of these rights.
- This catalog only applies to products purchased through our company or one of our company's official agencies. This catalog does not apply to products that are purchased through other third parties.

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

# CGA series

## General (Up to 75V)



Type: CGA1/0603 [EIA 0201], CGA2/1005 [EIA 0402], CGA3/1608 [EIA 0603],  
CGA4/2012 [EIA 0805], CGA5/3216 [EIA 1206], CGA6/3225 [EIA 1210],  
CGA8/4532 [EIA 1812], CGA9/5750 [EIA 2220]

### SERIES OVERVIEW

General type CGA series is a surface-mounted component, which multilayer dielectrics and inner electrodes are stacked alternately. The monolithic structure ensures superior mechanical strength and high reliability. Also, outstanding frequency characteristics such as low ESR and low ESL are provided owing to the simpler structure than other capacitors. The capacitance range is up to 100 $\mu$ F and the lineup has been expanding to a range of the film capacitor and electrolytic capacitor.

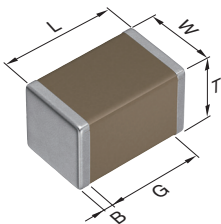
### FEATURES

- Superior mechanical strength and high reliability due to the monolithic structure
- Outstanding frequency characteristics such as low ESR and low ESL by the simple structure
- Low self-heating value and high resistance to ripple on account of the low ESR
- No polarity
- Qualified based on AEC-Q200

### APPLICATIONS

- Smoothing and decoupling use in power lines for automotive applications such as ADAS, autonomous driving system ECU
- LC resonance circuit (COG type)
- Applications requiring high reliability

### SHAPE & DIMENSIONS



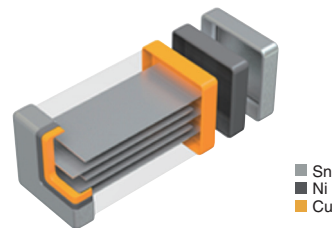
L	Body length
W	Body width
T	Body height
B	Terminal width
G	Terminal spacing

Dimensions in mm

Type	L	W	T	B
CGA6	3.20 $\pm$ 0.40	2.50 $\pm$ 0.30	2.50 $\pm$ 0.30	0.20 min.
CGA7	4.50 $\pm$ 0.40	2.00 $\pm$ 0.20	2.00 $\pm$ 0.20	0.20 min.
CGA8	4.50 $\pm$ 0.40	3.20 $\pm$ 0.40	2.50 $\pm$ 0.30	0.20 min.
CGA9	5.70 $\pm$ 0.40	5.00 $\pm$ 0.40	2.80 $\pm$ 0.30	0.20 min.

\*Dimensional tolerances are typical values.

### PRODUCT STRUCTURE



The structure which multilayer dielectrics and inner electrodes are stacked alternately. The monolithic and simple structure contributes to superior mechanical strength and excellent frequency characteristics.

# MULTILAYER CERAMIC CHIP CAPACITORS



## CATALOG NUMBER CONSTRUCTION

<b>CGA</b>	<b>6</b>	<b>P</b>	<b>1</b>	<b>X7T</b>	<b>0G</b>	<b>107</b>	<b>M</b>	<b>250</b>	<b>A</b>	<b>C</b>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)

### (1)Series

### (2)Dimensions L x W (mm)

Code	EIA	Length	Width	Terminal width
1	0201	0.60	0.30	0.10
2	0402	1.00	0.50	0.10
3	0603	1.60	0.80	0.20
4	0805	2.00	1.25	0.20
5	1206	3.20	1.60	0.20
6	1210	3.20	2.50	0.20
8	1812	4.50	3.20	0.20
9	2220	5.70	5.00	0.20

### (3)Thickness code

Code	Thickness
A	0.30 mm
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
Q	2.80 mm
R	3.20 mm

### (4)Voltage condition for life test

Symbol	Condition
1	1 x R.V.
2	2 x R.V.
3	1.5 x R.V.

### (5)Temperature characteristics

Temperature characteristics	Temperature coefficient or capacitance change	Temperature range
C0G	0±30 ppm/°C	-55 to +125°C
X5R	±15%	-55 to +85°C
X7R	±15%	-55 to +125°C
X7S	±22%	-55 to +125°C
X7T	+22,-33%	-55 to +125 °C

### (6)Rated voltage (DC)

Code	Voltage (DC)
0E	2.5V
0G	4V
0J	6.3V
1A	10V
1C	16V
1E	25V
1V	35V
1H	50V
1N	75V

### (7)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

### (8)Capacitance tolerance

Code	Tolerance
C	±0.25pF
D	±0.50pF
J	±5%
K	±10%
M	±20%

### (9)Thickness

Code	Thickness
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
160	1.60 mm
200	2.00 mm
230	2.30 mm
250	2.50 mm
280	2.80 mm
320	3.20 mm

### (10)Packaging style

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


### (11)Special reserved code

Code	Description
A,B,C	TDK internal code

## Capacitance range chart

## CGA1/0603 [EIA 0201]

Capacitance		COG		X7R					X7T
(pF)	Code	1H (50V)	1E (25V)	1H (50V)	1E (25V)	1C (16V)	1A (10V)	0J (6.3V)	0G (4V)
1	010	■	■						
1.5	1R5	■	■						
2	020	■	■						
2.2	2R2	■	■						
3	030	■	■						
3.3	3R3	■	■						
4	040	■	■						
4.7	4R7	■	■						
5	050	■	■						
6	060	■	■						
6.8	6R8	■	■						
7	070	■	■						
8	080	■	■						
9	090	■	■						
10	100	■	■						
12	120	■	■						
15	150	■	■						
18	180	■	■						
22	220	■	■						
27	270	■	■						
33	330	■	■						
39	390	■	■						
47	470	■	■						
56	560	■	■						
68	680	■	■						
82	820	■	■						
100	101	■	■	■	■	■			
150	151			■	■	■			
220	221			■	■	■			
330	331			■	■	■			
470	471			■	■	■			
680	681			■	■	■			
1,000	102				■	■			
1,500	152				■	■			
2,200	222				■	■			
3,300	332				■	■			
4,700	472					■			
6,800	682					■			
10,000	103						■	■	
100,000	104								■

Standard thickness  0.30mm

■ For details such as the catalog numbers, please refer to the capacitance range table on page 12 and after.

MULTILAYER CERAMIC CHIP CAPACITORS TDK

Capacitance range chart

CGA2/1005 [EIA 0402]

Capacitance		COG	X5R					X7R					X7S		X7T	
(pF)	Code	1H (50V)	1H (50V)	1V (35V)	1E (25V)	1C (16V)	1A (10V)	1H (50V)	1V (35V)	1E (25V)	1C (16V)	1A (10V)	0J (6.3V)	1C (16V)	1A (10V)	0G (4V)
1	010	█														
1.5	1R5	█														
2	020	█														
2.2	2R2	█														
3	030	█														
3.3	3R3	█														
4	040	█														
4.7	4R7	█														
5	050	█														
6	060	█														
6.8	6R8	█														
7	070	█														
8	080	█														
9	090	█														
10	100	█														
12	120	█														
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	█	█					█								
1,500	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	█	█			█	█	█	█	█						
150,000	154	█	█			█	█	█	█	█	█					
220,000	224	█	█			█	█	█	█	█	█					
330,000	334	█	█			█	█	█	█	█	█					
470,000	474	█	█			█	█	█	█	█	█		█	█		
1,000,000	105	█	█			█	█	█	█	█	█		█	█	█	

Standard thickness  0.50mm

Background gray: These products are not recommended for new designs.



For details such as the catalog numbers, please refer to the capacitance range table on page 12 and after.


⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

## Capacitance range chart

## CGA3/1608 [EIA 0603]

Capacitance		COG	X5R	X7R
(pF)	Code	1H (50V)	1H (50V)	1H (50V)
1	010			
1.5	1R5			
2	020			
2.2	2R2			
3	030			
3.3	3R3			
4	040			
4.7	4R7			
5	050			
6	060			
6.8	6R8			
7	070			
8	080			
9	090			
10	100			
12	120			
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			
15,000	153			
22,000	223			
33,000	333			
47,000	473			
68,000	683			


Standard thickness  0.80mm Background gray: These products are not recommended for new designs. For details such as the catalog numbers, please refer to the capacitance range table on page 12 and after.

 Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use.  
Please note that the contents may change without any prior notice due to reasons such as upgrading.

## Capacitance range chart

## CGA3/1608 [EIA 0603]

Capacitance		X5R						X7R					X7S			X7T		
(pF)	Code	1H (50V)	1V (35V)	1E (25V)	1C (16V)	1A (10V)	0J (6.3V)	1H (50V)	1V (35V)	1E (25V)	1C (16V)	0J (6.3V)	1C (16V)	1A (10V)	0G (4V)	1A (10V)	0J (6.3V)	0G (4V)
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																	
10,000,000	106																	

Standard thickness  0.80mm

 Background gray: These products are not recommended for new designs.

■ For details such as the catalog numbers, please refer to the capacitance range table on page 12 and after.

MULTILAYER CERAMIC CHIP CAPACITORS TDK

Capacitance range chart

CGA4/2012 [EIA 0805]

Capacitance		COG	X5R					X7R					X7S			X7T	
(pF)	Code	1H (50V)	1H (50V)	1V (35V)	1E (25V)	1C (16V)	1A (10V)	1H (50V)	1V (35V)	1E (25V)	1C (16V)	1A (10V)	OJ (6.3V)	1E (25V)	1C (16V)	1A (10V)	OJ (6.3V)
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	█															
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												█				
22,000,000	226																█

Standard thickness  0.60mm  0.85mm  1.25mm

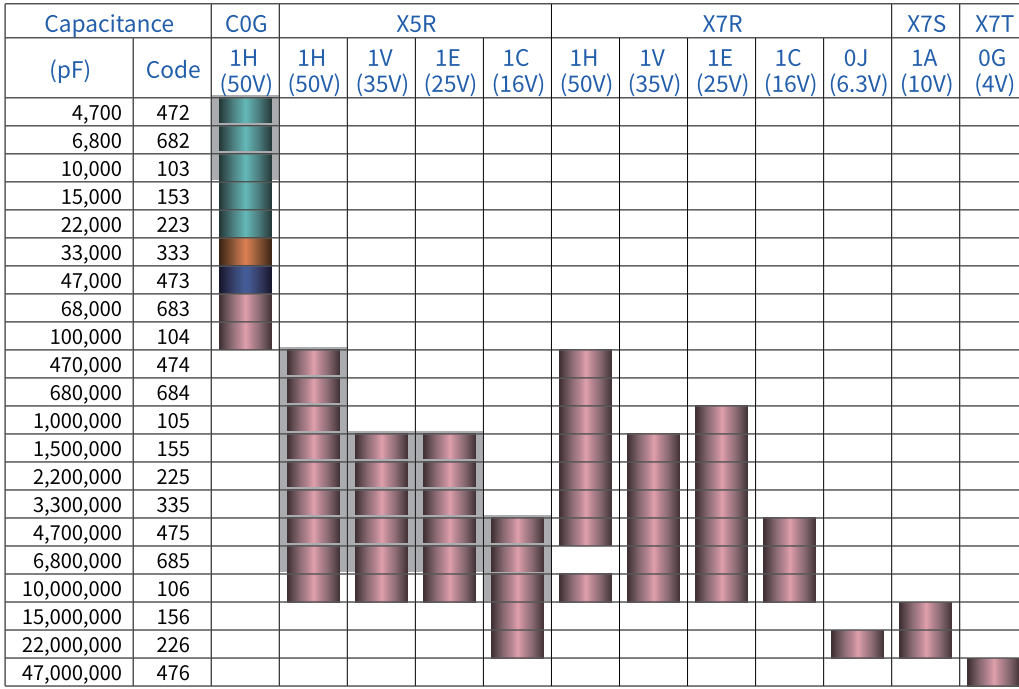
Background gray: These products are not recommended for new designs.

█ For details such as the catalog numbers, please refer to the capacitance range table on page 12 and after.

MULTILAYER CERAMIC CHIP CAPACITORS TDK

Capacitance range chart

CGA5/3216 [EIA 1206]



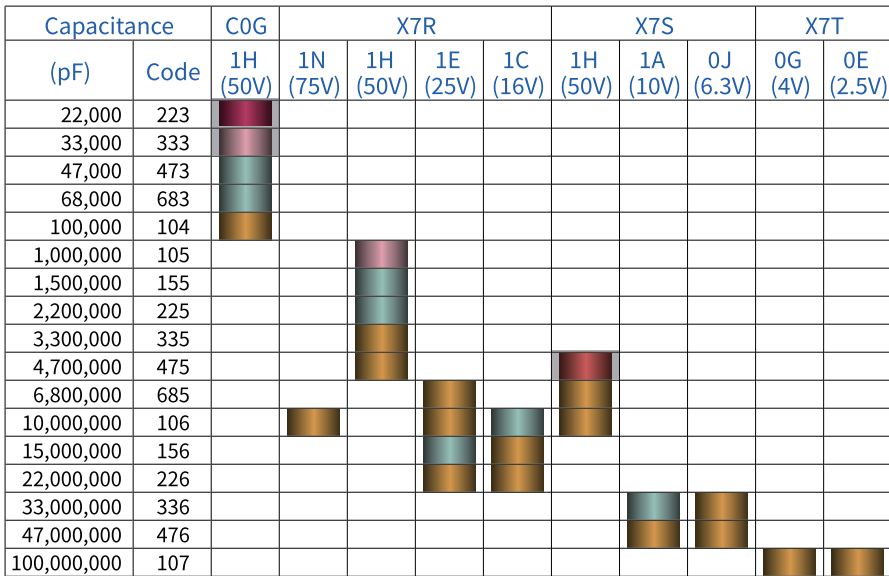
Standard thickness █ 0.60mm █ 0.85mm █ 1.15mm █ 1.60mm

█ Background gray: These products are not recommended for new designs.

█ For details such as the catalog numbers, please refer to the capacitance range table on page 12 and after.

Capacitance range chart

CGA6/3225 [EIA 1210]



Standard thickness █ 1.25mm █ 1.60mm █ 2.00mm █ 2.30mm █ 2.50mm

█ Background gray: These products are not recommended for new designs.

█ For details such as the catalog numbers, please refer to the capacitance range table on page 12 and after.

⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

## Capacitance range chart

## CGA8/4532 [EIA 1812]

Capacitance		COG		X7R	
(pF)	Code	1H (50V)	1H (50V)	1E (25V)	1C (16V)
47,000	473	■			
68,000	683	■			
100,000	104	■			
150,000	154	■			
220,000	224	■			
1,500,000	155		■		
2,200,000	225		■		
3,300,000	335		■		
4,700,000	475		■	■	
6,800,000	685		■		
10,000,000	106			■	
15,000,000	156			■	
22,000,000	226			■	■
33,000,000	336				■

Standard thickness ■ 1.60mm ■ 2.00mm ■ 2.30mm ■ 2.50mm ■ 2.80mm ■ 3.20mm

■ Background gray: These products are not recommended for new designs.

■ For details such as the catalog numbers, please refer to the capacitance range table on page 12 and after.

## Capacitance range chart

## CGA9/5750 [EIA 2220]

Capacitance		X7R			
(pF)	Code	1H (50V)	1V (35V)	1E (25V)	1C (16V)
4,700,000	475	■			
6,800,000	685	■			
10,000,000	106	■		■	
15,000,000	156			■	
22,000,000	226	■		■	
47,000,000	476		■	■	■

Standard thickness ■ 2.00mm ■ 2.30mm ■ 2.50mm

■ Background gray: These products are not recommended for new designs.

■ For details such as the catalog numbers, please refer to the capacitance range table on page 12 and after.

## MULTILAYER CERAMIC CHIP CAPACITORS



## Capacitance range table

Temperature characteristic: COG (-55 to +125°C, 0±30ppm/°C)

Capacitance	Dimensions	Thickness (mm)	Capacitance tolerance	Catalog number	
				Rated voltage Edc: 50V	
				Rated voltage Edc: 50V	Rated voltage Edc: 25V
1pF	0603	0.30±0.03	±0.25pF	<a href="#">CGA1A2C0G1H010C030BA</a>	<a href="#">CGA1A2C0G1E010C030BA</a>
	1005	0.50±0.05	±0.25pF	<a href="#">CGA2B2C0G1H010C050BA</a>	
	1608	0.80±0.10	±0.25pF	<a href="#">CGA3E2C0G1H010C080AA</a>	
1.5pF	0603	0.30±0.03	±0.25pF	<a href="#">CGA1A2C0G1H1R5C030BA</a>	<a href="#">CGA1A2C0G1E1R5C030BA</a>
	1005	0.50±0.05	±0.25pF	<a href="#">CGA2B2C0G1H1R5C050BA</a>	
	1608	0.80±0.10	±0.25pF	<a href="#">CGA3E2C0G1H1R5C080AA</a>	
2pF	0603	0.30±0.03	±0.25pF	<a href="#">CGA1A2C0G1H020C030BA</a>	<a href="#">CGA1A2C0G1E020C030BA</a>
	1005	0.50±0.05	±0.25pF	<a href="#">CGA2B2C0G1H020C050BA</a>	
	1608	0.80±0.10	±0.25pF	<a href="#">CGA3E2C0G1H020C080AA</a>	
2.2pF	0603	0.30±0.03	±0.25pF	<a href="#">CGA1A2C0G1H2R2C030BA</a>	<a href="#">CGA1A2C0G1E2R2C030BA</a>
	1005	0.50±0.05	±0.25pF	<a href="#">CGA2B2C0G1H2R2C050BA</a>	
	1608	0.80±0.10	±0.25pF	<a href="#">CGA3E2C0G1H2R2C080AA</a>	
3pF	0603	0.30±0.03	±0.25pF	<a href="#">CGA1A2C0G1H030C030BA</a>	<a href="#">CGA1A2C0G1E030C030BA</a>
	1005	0.50±0.05	±0.25pF	<a href="#">CGA2B2C0G1H030C050BA</a>	
	1608	0.80±0.10	±0.25pF	<a href="#">CGA3E2C0G1H030C080AA</a>	
3.3pF	0603	0.30±0.03	±0.25pF	<a href="#">CGA1A2C0G1H3R3C030BA</a>	<a href="#">CGA1A2C0G1E3R3C030BA</a>
	1005	0.50±0.05	±0.25pF	<a href="#">CGA2B2C0G1H3R3C050BA</a>	
	1608	0.80±0.10	±0.25pF	<a href="#">CGA3E2C0G1H3R3C080AA</a>	
4pF	0603	0.30±0.03	±0.25pF	<a href="#">CGA1A2C0G1H040C030BA</a>	<a href="#">CGA1A2C0G1E040C030BA</a>
	1005	0.50±0.05	±0.25pF	<a href="#">CGA2B2C0G1H040C050BA</a>	
	1608	0.80±0.10	±0.25pF	<a href="#">CGA3E2C0G1H040C080AA</a>	
4.7pF	0603	0.30±0.03	±0.25pF	<a href="#">CGA1A2C0G1H4R7C030BA</a>	<a href="#">CGA1A2C0G1E4R7C030BA</a>
	1005	0.50±0.05	±0.25pF	<a href="#">CGA2B2C0G1H4R7C050BA</a>	
	1608	0.80±0.10	±0.25pF	<a href="#">CGA3E2C0G1H4R7C080AA</a>	
5pF	0603	0.30±0.03	±0.25pF	<a href="#">CGA1A2C0G1H050C030BA</a>	<a href="#">CGA1A2C0G1E050C030BA</a>
	1005	0.50±0.05	±0.25pF	<a href="#">CGA2B2C0G1H050C050BA</a>	
	1608	0.80±0.10	±0.25pF	<a href="#">CGA3E2C0G1H050C080AA</a>	
6pF	0603	0.30±0.03	±0.50pF	<a href="#">CGA1A2C0G1H060D030BA</a>	<a href="#">CGA1A2C0G1E060D030BA</a>
	1005	0.50±0.05	±0.50pF	<a href="#">CGA2B2C0G1H060D050BA</a>	
	1608	0.80±0.10	±0.50pF	<a href="#">CGA3E2C0G1H060D080AA</a>	
6.8pF	0603	0.30±0.03	±0.50pF	<a href="#">CGA1A2C0G1H6R8D030BA</a>	<a href="#">CGA1A2C0G1E6R8D030BA</a>
	1005	0.50±0.05	±0.50pF	<a href="#">CGA2B2C0G1H6R8D050BA</a>	
	1608	0.80±0.10	±0.50pF	<a href="#">CGA3E2C0G1H6R8D080AA</a>	
7pF	0603	0.30±0.03	±0.50pF	<a href="#">CGA1A2C0G1H070D030BA</a>	<a href="#">CGA1A2C0G1E070D030BA</a>
	1005	0.50±0.05	±0.50pF	<a href="#">CGA2B2C0G1H070D050BA</a>	
	1608	0.80±0.10	±0.50pF	<a href="#">CGA3E2C0G1H070D080AA</a>	
8pF	0603	0.30±0.03	±0.50pF	<a href="#">CGA1A2C0G1H080D030BA</a>	<a href="#">CGA1A2C0G1E080D030BA</a>
	1005	0.50±0.05	±0.50pF	<a href="#">CGA2B2C0G1H080D050BA</a>	
	1608	0.80±0.10	±0.50pF	<a href="#">CGA3E2C0G1H080D080AA</a>	
9pF	0603	0.30±0.03	±0.50pF	<a href="#">CGA1A2C0G1H090D030BA</a>	<a href="#">CGA1A2C0G1E090D030BA</a>
	1005	0.50±0.05	±0.50pF	<a href="#">CGA2B2C0G1H090D050BA</a>	
	1608	0.80±0.10	±0.50pF	<a href="#">CGA3E2C0G1H090D080AA</a>	
10pF	0603	0.30±0.03	±0.50pF	<a href="#">CGA1A2C0G1H100D030BA</a>	<a href="#">CGA1A2C0G1E100D030BA</a>
	1005	0.50±0.05	±0.50pF	<a href="#">CGA2B2C0G1H100D050BA</a>	
	1608	0.80±0.10	±0.50pF	<a href="#">CGA3E2C0G1H100D080AA</a>	
12pF	0603	0.30±0.03	±5%	<a href="#">CGA1A2C0G1H120J030BA</a>	<a href="#">CGA1A2C0G1E120J030BA</a>
	1005	0.50±0.05	±5%	<a href="#">CGA2B2C0G1H120J050BA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H120J080AA</a>	
15pF	0603	0.30±0.03	±5%	<a href="#">CGA1A2C0G1H150J030BA</a>	<a href="#">CGA1A2C0G1E150J030BA</a>
	1005	0.50±0.05	±5%	<a href="#">CGA2B2C0G1H150J050BA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H150J080AA</a>	
18pF	0603	0.30±0.03	±5%	<a href="#">CGA1A2C0G1H180J030BA</a>	<a href="#">CGA1A2C0G1E180J030BA</a>
	1005	0.50±0.05	±5%	<a href="#">CGA2B2C0G1H180J050BA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H180J080AA</a>	
22pF	0603	0.30±0.03	±5%	<a href="#">CGA1A2C0G1H220J030BA</a>	<a href="#">CGA1A2C0G1E220J030BA</a>
	1005	0.50±0.05	±5%	<a href="#">CGA2B2C0G1H220J050BA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H220J080AA</a>	
27pF	0603	0.30±0.03	±5%	<a href="#">CGA1A2C0G1H270J030BA</a>	<a href="#">CGA1A2C0G1E270J030BA</a>
	1005	0.50±0.05	±5%	<a href="#">CGA2B2C0G1H270J050BA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H270J080AA</a>	
33pF	0603	0.30±0.03	±5%	<a href="#">CGA1A2C0G1H330J030BA</a>	<a href="#">CGA1A2C0G1E330J030BA</a>
	1005	0.50±0.05	±5%	<a href="#">CGA2B2C0G1H330J050BA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H330J080AA</a>	
39pF	0603	0.30±0.03	±5%	<a href="#">CGA1A2C0G1H390J030BA</a>	<a href="#">CGA1A2C0G1E390J030BA</a>
	1005	0.50±0.05	±5%	<a href="#">CGA2B2C0G1H390J050BA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H390J080AA</a>	
47pF	0603	0.30±0.03	±5%	<a href="#">CGA1A2C0G1H470J030BA</a>	<a href="#">CGA1A2C0G1E470J030BA</a>
	1005	0.50±0.05	±5%	<a href="#">CGA2B2C0G1H470J050BA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H470J080AA</a>	

Click the part numbers for details.

## MULTILAYER CERAMIC CHIP CAPACITORS



## Capacitance range table

Temperature characteristic: COG (-55 to +125°C, 0±30ppm/°C)

Capacitance	Dimensions	Thickness (mm)	Capacitance tolerance	Catalog number	
				Rated voltage Edc: 50V	
				Rated voltage Edc: 50V	Rated voltage Edc: 25V
56pF	0603	0.30±0.03	±5%	<a href="#">CGA1A2C0G1H560J030BA</a>	<a href="#">CGA1A2C0G1E560J030BA</a>
	1005	0.50±0.05	±5%	<a href="#">CGA2B2C0G1H560J050BA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H560J080AA</a>	
68pF	0603	0.30±0.03	±5%	<a href="#">CGA1A2C0G1H680J030BA</a>	<a href="#">CGA1A2C0G1E680J030BA</a>
	1005	0.50±0.05	±5%	<a href="#">CGA2B2C0G1H680J050BA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H680J080AA</a>	
82pF	0603	0.30±0.03	±5%	<a href="#">CGA1A2C0G1H820J030BA</a>	<a href="#">CGA1A2C0G1E820J030BA</a>
	1005	0.50±0.05	±5%	<a href="#">CGA2B2C0G1H820J050BA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H820J080AA</a>	
100pF	0603	0.30±0.03	±5%	<a href="#">CGA1A2C0G1H101J030BA</a>	<a href="#">CGA1A2C0G1E101J030BA</a>
	1005	0.50±0.05	±5%	<a href="#">CGA2B2C0G1H101J050BA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H101J080AA</a>	
120pF	1005	0.50±0.05	±5%	<a href="#">CGA2B2C0G1H121J050BA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H121J080AA</a>	
	1005	0.50±0.05	±5%	<a href="#">CGA2B2C0G1H151J050BA</a>	
150pF	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H151J080AA</a>	
	1005	0.50±0.05	±5%	<a href="#">CGA2B2C0G1H181J050BA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H181J080AA</a>	
180pF	1005	0.50±0.05	±5%	<a href="#">CGA2B2C0G1H221J050BA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H221J080AA</a>	
	1005	0.50±0.05	±5%	<a href="#">CGA2B2C0G1H271J050BA</a>	
220pF	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H271J080AA</a>	
	1005	0.50±0.05	±5%	<a href="#">CGA2B2C0G1H331J050BA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H331J080AA</a>	
330pF	1005	0.50±0.05	±5%	<a href="#">CGA2B2C0G1H391J050BA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H391J080AA</a>	
	1005	0.50±0.05	±5%	<a href="#">CGA2B2C0G1H471J050BA</a>	
390pF	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H471J080AA</a>	
	1005	0.50±0.05	±5%	<a href="#">CGA2B2C0G1H561J050BA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H561J080AA</a>	
470pF	1005	0.50±0.05	±5%	<a href="#">CGA2B2C0G1H681J050BA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H681J080AA</a>	
	1005	0.50±0.05	±5%	<a href="#">CGA2B2C0G1H821J050BA</a>	
560pF	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H821J080AA</a>	
	1005	0.50±0.05	±5%	<a href="#">CGA2B2C0G1H102J050BA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H102J080AA</a>	
680pF	1005	0.50±0.05	±5%	<a href="#">CGA2B2C0G1H102J050BA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H102J080AA</a>	
	1005	0.50±0.05	±5%	<a href="#">CGA2B2C0G1H122J050BA</a>	
820pF	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H122J080AA</a>	
	1005	0.50±0.05	±5%	<a href="#">CGA2B2C0G1H152J050BA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H152J080AA</a>	
1nF	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H182J080AA</a>	
	2012	0.60±0.15	±5%	<a href="#">CGA4C2C0G1H182J060AA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H222J080AA</a>	
1.2nF	2012	0.60±0.15	±5%	<a href="#">CGA4C2C0G1H222J060AA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H272J080AA</a>	
	2012	0.60±0.15	±5%	<a href="#">CGA4C2C0G1H272J060AA</a>	
1.5nF	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H332J080AA</a>	
	2012	0.60±0.15	±5%	<a href="#">CGA4C2C0G1H332J060AA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H392J080AA</a>	
1.8nF	2012	0.60±0.15	±5%	<a href="#">CGA4C2C0G1H392J060AA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H472J080AA</a>	
	2012	0.60±0.15	±5%	<a href="#">CGA4C2C0G1H472J060AA</a>	
2.2nF	3216	0.60±0.15	±5%	<a href="#">CGA5C2C0G1H472J060AA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H562J080AA</a>	
	2012	0.60±0.15	±5%	<a href="#">CGA4C2C0G1H562J060AA</a>	
2.7nF	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H682J080AA</a>	
	2012	0.60±0.15	±5%	<a href="#">CGA4C2C0G1H682J060AA</a>	
	3216	0.60±0.15	±5%	<a href="#">CGA5C2C0G1H682J060AA</a>	
3.3nF	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H822J080AA</a>	
	2012	0.60±0.15	±5%	<a href="#">CGA4C2C0G1H822J060AA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H103J080AA</a>	
3.9nF	2012	0.60±0.15	±5%	<a href="#">CGA4C2C0G1H103J060AA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H103J080AA</a>	
	3216	0.60±0.15	±5%	<a href="#">CGA5C2C0G1H103J060AA</a>	
4.7nF	2012	0.60±0.15	±5%	<a href="#">CGA4C2C0G1H153J060AA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H153J080AA</a>	
	3216	0.60±0.15	±5%	<a href="#">CGA5C2C0G1H153J060AA</a>	
5.6nF	2012	0.85±0.15	±5%	<a href="#">CGA4F2C0G1H153J085AA</a>	
	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H153J080AA</a>	
	3216	0.60±0.15	±5%	<a href="#">CGA5C2C0G1H153J060AA</a>	
6.8nF	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H153J080AA</a>	
	2012	0.60±0.15	±5%	<a href="#">CGA4C2C0G1H153J060AA</a>	
	3216	0.60±0.15	±5%	<a href="#">CGA5C2C0G1H153J060AA</a>	
8.2nF	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H153J080AA</a>	
	2012	0.60±0.15	±5%	<a href="#">CGA4C2C0G1H153J060AA</a>	
	3216	0.60±0.15	±5%	<a href="#">CGA5C2C0G1H153J060AA</a>	
10nF	1608	0.80±0.10	±5%	<a href="#">CGA3E2C0G1H153J080AA</a>	
	2012	0.60±0.15	±5%	<a href="#">CGA4C2C0G1H153J060AA</a>	
	3216	0.60±0.15	±5%	<a href="#">CGA5C2C0G1H153J060AA</a>	
15nF	2012	0.85±0.15	±5%	<a href="#">CGA4F2C0G1H153J085AA</a>	
	3216	0.60±0.15	±5%	<a href="#">CGA5C2C0G1H153J060AA</a>	

■ Gray items: These products are not recommended for new designs.

Click the part numbers for details.

## Capacitance range table

Temperature characteristic: COG (-55 to +125°C, 0±30ppm/°C)

Capacitance	Dimensions	Thickness (mm)	Capacitance tolerance	Catalog number
				Rated voltage Edc: 50V
22nF	2012	1.25±0.20	±5%	<a href="#">CGA4J2C0G1H223J125AA</a>
	3216	0.60±0.15	±5%	<a href="#">CGA5C2C0G1H223J060AA</a>
	3225	1.25±0.20	±5%	<a href="#">CGA6J2C0G1H223J125AA</a>
33nF	2012	1.25±0.20	±5%	<a href="#">CGA4J2C0G1H333J125AA</a>
	3216	0.85±0.15	±5%	<a href="#">CGA5F2C0G1H333J085AA</a>
	3225	1.60±0.20	±5%	<a href="#">CGA6L2C0G1H333J160AA</a>
47nF	3216	1.15±0.15	±5%	<a href="#">CGA5H2C0G1H473J115AA</a>
	3225	2.00±0.20	±5%	<a href="#">CGA6M2C0G1H473J200AA</a>
	4532	1.60±0.20	±5%	<a href="#">CGA8L2C0G1H473J160KA</a>
68nF	3216	1.60±0.20	±5%	<a href="#">CGA5L2C0G1H683J160AA</a>
	3225	2.00±0.20	±5%	<a href="#">CGA6M2C0G1H683J200AA</a>
	4532	1.60±0.20	±5%	<a href="#">CGA8L2C0G1H683J160KA</a>
100nF	3216	1.60±0.20	±5%	<a href="#">CGA5L2C0G1H104J160AA</a>
	3225	2.50±0.30	±5%	<a href="#">CGA6P2C0G1H104J250AA</a>
	4532	2.00±0.20	±5%	<a href="#">CGA8M2C0G1H104J200KA</a>
150nF	4532	2.50±0.30	±5%	<a href="#">CGA8P2C0G1H154J250KA</a>
220nF	4532	3.20±0.30	±5%	<a href="#">CGA8R2C0G1H224J320KA</a>

■ Gray items: These products are not recommended for new designs.  
Click the part numbers for details.

# MULTILAYER CERAMIC CHIP CAPACITORS

## Capacitance range table

Temperature characteristic: X5R (-55 to +85°C, ±15%)

Capacitance	Dimensions	Thickness (mm)	Capacitance tolerance	Catalog number		
				Rated voltage Edc: 50V	Rated voltage Edc: 35V	Rated voltage Edc: 25V
220pF	1005	0.50±0.05	±10%	<a href="#">CGA2B2X5R1H221K050BA</a>		
			±20%	<a href="#">CGA2B2X5R1H221M050BA</a>		
330pF	1005	0.50±0.05	±10%	<a href="#">CGA2B2X5R1H331K050BA</a>		
			±20%	<a href="#">CGA2B2X5R1H331M050BA</a>		
470pF	1005	0.50±0.05	±10%	<a href="#">CGA2B2X5R1H471K050BA</a>		
			±20%	<a href="#">CGA2B2X5R1H471M050BA</a>		
680pF	1005	0.50±0.05	±10%	<a href="#">CGA2B2X5R1H681K050BA</a>		
			±20%	<a href="#">CGA2B2X5R1H681M050BA</a>		
1nF	1005	0.50±0.05	±10%	<a href="#">CGA2B2X5R1H102K050BA</a>		
			±20%	<a href="#">CGA2B2X5R1H102M050BA</a>		
	1608	0.80±0.10	±10%	<a href="#">CGA3E2X5R1H102K080AA</a>		
			±20%	<a href="#">CGA3E2X5R1H102M080AA</a>		
1.5nF	1005	0.50±0.05	±10%	<a href="#">CGA2B2X5R1H152K050BA</a>		
			±20%	<a href="#">CGA2B2X5R1H152M050BA</a>		
	1608	0.80±0.10	±10%	<a href="#">CGA3E2X5R1H152K080AA</a>		
			±20%	<a href="#">CGA3E2X5R1H152M080AA</a>		
2.2nF	1005	0.50±0.05	±10%	<a href="#">CGA2B2X5R1H222K050BA</a>		
			±20%	<a href="#">CGA2B2X5R1H222M050BA</a>		
	1608	0.80±0.10	±10%	<a href="#">CGA3E2X5R1H222K080AA</a>		
			±20%	<a href="#">CGA3E2X5R1H222M080AA</a>		
3.3nF	1005	0.50±0.05	±10%	<a href="#">CGA2B2X5R1H332K050BA</a>		
			±20%	<a href="#">CGA2B2X5R1H332M050BA</a>		
	1608	0.80±0.10	±10%	<a href="#">CGA3E2X5R1H332K080AA</a>		
			±20%	<a href="#">CGA3E2X5R1H332M080AA</a>		
4.7nF	1005	0.50±0.05	±10%	<a href="#">CGA2B2X5R1H472K050BA</a>		
			±20%	<a href="#">CGA2B2X5R1H472M050BA</a>		
	1608	0.80±0.10	±10%	<a href="#">CGA3E2X5R1H472K080AA</a>		
			±20%	<a href="#">CGA3E2X5R1H472M080AA</a>		
6.8nF	1005	0.50±0.05	±10%	<a href="#">CGA2B2X5R1H682K050BA</a>		
			±20%	<a href="#">CGA2B2X5R1H682M050BA</a>		
	1608	0.80±0.10	±10%	<a href="#">CGA3E2X5R1H682K080AA</a>		
			±20%	<a href="#">CGA3E2X5R1H682M080AA</a>		
10nF	1005	0.50±0.05	±10%	<a href="#">CGA2B3X5R1H103K050BB</a>	<a href="#">CGA2B3X5R1V103K050BB</a>	<a href="#">CGA2B2X5R1E103K050BA</a>
			±20%	<a href="#">CGA2B3X5R1H103M050BB</a>	<a href="#">CGA2B3X5R1V103M050BB</a>	<a href="#">CGA2B2X5R1E103M050BA</a>
	1608	0.80±0.10	±10%	<a href="#">CGA3E2X5R1H103K080AA</a>		
			±20%	<a href="#">CGA3E2X5R1H103M080AA</a>		
15nF	1005	0.50±0.05	±10%	<a href="#">CGA2B3X5R1H153K050BB</a>	<a href="#">CGA2B3X5R1V153K050BB</a>	<a href="#">CGA2B2X5R1E153K050BA</a>
			±20%	<a href="#">CGA2B3X5R1H153M050BB</a>	<a href="#">CGA2B3X5R1V153M050BB</a>	<a href="#">CGA2B2X5R1E153M050BA</a>
	1608	0.80±0.10	±10%	<a href="#">CGA3E2X5R1H153K080AA</a>		
			±20%	<a href="#">CGA3E2X5R1H153M080AA</a>		
22nF	1005	0.50±0.05	±10%	<a href="#">CGA2B3X5R1H223K050BB</a>	<a href="#">CGA2B3X5R1V223K050BB</a>	<a href="#">CGA2B2X5R1E223K050BA</a>
			±20%	<a href="#">CGA2B3X5R1H223M050BB</a>	<a href="#">CGA2B3X5R1V223M050BB</a>	<a href="#">CGA2B2X5R1E223M050BA</a>
	1608	0.80±0.10	±10%	<a href="#">CGA3E2X5R1H223K080AA</a>		
			±20%	<a href="#">CGA3E2X5R1H223M080AA</a>		
33nF	1005	0.50±0.05	±10%	<a href="#">CGA2B3X5R1H333K050BB</a>	<a href="#">CGA2B3X5R1V333K050BB</a>	<a href="#">CGA2B2X5R1E333K050BA</a>
			±20%	<a href="#">CGA2B3X5R1H333M050BB</a>	<a href="#">CGA2B3X5R1V333M050BB</a>	<a href="#">CGA2B2X5R1E333M050BA</a>
	1608	0.80±0.10	±10%	<a href="#">CGA3E2X5R1H333K080AA</a>		
			±20%	<a href="#">CGA3E2X5R1H333M080AA</a>		
47nF	1005	0.50±0.05	±10%	<a href="#">CGA2B3X5R1H473K050BB</a>	<a href="#">CGA2B3X5R1V473K050BB</a>	<a href="#">CGA2B2X5R1E473K050BA</a>
			±20%	<a href="#">CGA2B3X5R1H473M050BB</a>	<a href="#">CGA2B3X5R1V473M050BB</a>	<a href="#">CGA2B2X5R1E473M050BA</a>
	1608	0.80±0.10	±10%	<a href="#">CGA3E2X5R1H473K080AA</a>		
			±20%	<a href="#">CGA3E2X5R1H473M080AA</a>		
68nF	1005	0.50±0.05	±10%	<a href="#">CGA2B3X5R1H683K050BB</a>	<a href="#">CGA2B3X5R1V683K050BB</a>	<a href="#">CGA2B3X5R1E683K050BB</a>
			±20%	<a href="#">CGA2B3X5R1H683M050BB</a>	<a href="#">CGA2B3X5R1V683M050BB</a>	<a href="#">CGA2B3X5R1E683M050BB</a>
	1608	0.80±0.10	±10%	<a href="#">CGA3E2X5R1H683K080AA</a>		
			±20%	<a href="#">CGA3E2X5R1H683M080AA</a>		
100nF	1005	0.50±0.05	±10%	<a href="#">CGA2B3X5R1H104K050BB</a>	<a href="#">CGA2B3X5R1V104K050BB</a>	<a href="#">CGA2B3X5R1E104K050BB</a>
			±20%	<a href="#">CGA2B3X5R1H104M050BB</a>	<a href="#">CGA2B3X5R1V104M050BB</a>	<a href="#">CGA2B3X5R1E104M050BB</a>
	1608	0.80±0.10	±10%	<a href="#">CGA3E2X5R1H104K080AA</a>		<a href="#">CGA3E2X5R1E104K080AA</a>
			±20%	<a href="#">CGA3E2X5R1H104M080AA</a>		<a href="#">CGA3E2X5R1E104M080AA</a>
150nF	1608	0.80±0.10	±10%	<a href="#">CGA3E3X5R1H154K080AB</a>	<a href="#">CGA3E3X5R1V154K080AB</a>	<a href="#">CGA3E2X5R1E154K080AA</a>
			±20%	<a href="#">CGA3E3X5R1H154M080AB</a>	<a href="#">CGA3E3X5R1V154M080AB</a>	<a href="#">CGA3E2X5R1E154M080AA</a>

■ Gray items: These products are not recommended for new designs.  
Click the part numbers for details.

⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use.  
Please note that the contents may change without any prior notice due to reasons such as upgrading.

# MULTILAYER CERAMIC CHIP CAPACITORS

## Capacitance range table

Temperature characteristic: X5R (-55 to +85°C, ±15%)

Capacitance	Dimensions	Thickness (mm)	Capacitance tolerance	Catalog number		
				Rated voltage Edc: 50V	Rated voltage Edc: 35V	Rated voltage Edc: 25V
220nF	1608	0.80±0.10	±10%	<a href="#">CGA3E3X5R1H224K080AB</a>	<a href="#">CGA3E3X5R1V224K080AB</a>	<a href="#">CGA3E2X5R1E224K080AA</a>
			±20%	<a href="#">CGA3E3X5R1H224M080AB</a>	<a href="#">CGA3E3X5R1V224M080AB</a>	<a href="#">CGA3E2X5R1E224M080AA</a>
	2012	1.25±0.20	±10%	<a href="#">CGA4J2X5R1H224K125AA</a>		
			±20%	<a href="#">CGA4J2X5R1H224M125AA</a>		
330nF	1608	0.80±0.10	±10%	<a href="#">CGA3E3X5R1H334K080AB</a>	<a href="#">CGA3E3X5R1V334K080AB</a>	<a href="#">CGA3E3X5R1E334K080AB</a>
			±20%	<a href="#">CGA3E3X5R1H334M080AB</a>	<a href="#">CGA3E3X5R1V334M080AB</a>	<a href="#">CGA3E3X5R1E334M080AB</a>
	2012	1.25±0.20	±10%	<a href="#">CGA4J2X5R1H334K125AA</a>		
			±20%	<a href="#">CGA4J2X5R1H334M125AA</a>		
470nF	1608	0.80±0.10	±10%	<a href="#">CGA3E3X5R1H474K080AB</a>	<a href="#">CGA3E3X5R1V474K080AB</a>	<a href="#">CGA3E3X5R1E474K080AB</a>
			±20%	<a href="#">CGA3E3X5R1H474M080AB</a>	<a href="#">CGA3E3X5R1V474M080AB</a>	<a href="#">CGA3E3X5R1E474M080AB</a>
	2012	1.25±0.20	±10%	<a href="#">CGA4J3X5R1H474K125AB</a>	<a href="#">CGA4J3X5R1V474K125AB</a>	<a href="#">CGA4J2X5R1E474K125AA</a>
			±20%	<a href="#">CGA4J3X5R1H474M125AB</a>	<a href="#">CGA4J3X5R1V474M125AB</a>	<a href="#">CGA4J2X5R1E474M125AA</a>
	3216	1.60+0.30,-0.10	±10%	<a href="#">CGA5L2X5R1H474K160AA</a>		
			±20%	<a href="#">CGA5L2X5R1H474M160AA</a>		
680nF	1608	0.80±0.10	±10%	<a href="#">CGA3E3X5R1H684K080AB</a>	<a href="#">CGA3E3X5R1V684K080AB</a>	<a href="#">CGA3E3X5R1E684K080AB</a>
			±20%	<a href="#">CGA3E3X5R1H684M080AB</a>	<a href="#">CGA3E3X5R1V684M080AB</a>	<a href="#">CGA3E3X5R1E684M080AB</a>
	2012	1.25±0.20	±10%	<a href="#">CGA4J3X5R1H684K125AB</a>	<a href="#">CGA4J3X5R1V684K125AB</a>	<a href="#">CGA4J2X5R1E684K125AA</a>
			±20%	<a href="#">CGA4J3X5R1H684M125AB</a>	<a href="#">CGA4J3X5R1V684M125AB</a>	<a href="#">CGA4J2X5R1E684M125AA</a>
	3216	1.60+0.30,-0.10	±10%	<a href="#">CGA5L2X5R1H684K160AA</a>		
			±20%	<a href="#">CGA5L2X5R1H684M160AA</a>		
1µF	1608	0.80±0.10	±10%	<a href="#">CGA3E3X5R1H105K080AB</a>	<a href="#">CGA3E3X5R1V105K080AB</a>	<a href="#">CGA3E3X5R1E105K080AB</a>
			±20%	<a href="#">CGA3E3X5R1H105M080AB</a>	<a href="#">CGA3E3X5R1V105M080AB</a>	<a href="#">CGA3E3X5R1E105M080AB</a>
	2012	1.25±0.20	±10%	<a href="#">CGA4J3X5R1H105K125AB</a>	<a href="#">CGA4J3X5R1V105K125AB</a>	<a href="#">CGA4J2X5R1E105K125AA</a>
			±20%	<a href="#">CGA4J3X5R1H105M125AB</a>	<a href="#">CGA4J3X5R1V105M125AB</a>	<a href="#">CGA4J2X5R1E105M125AA</a>
	3216	1.60+0.30,-0.10	±10%	<a href="#">CGA5L2X5R1H105K160AA</a>		
			±20%	<a href="#">CGA5L2X5R1H105M160AA</a>		
1.5µF	2012	1.25±0.20	±10%	<a href="#">CGA4J3X5R1H155K125AB</a>	<a href="#">CGA4J3X5R1V155K125AB</a>	<a href="#">CGA4J3X5R1E155K125AB</a>
			±20%	<a href="#">CGA4J3X5R1H155M125AB</a>	<a href="#">CGA4J3X5R1V155M125AB</a>	<a href="#">CGA4J3X5R1E155M125AB</a>
	3216	1.60+0.30,-0.10	±10%	<a href="#">CGA5L3X5R1H155K160AB</a>	<a href="#">CGA5L3X5R1V155K160AB</a>	<a href="#">CGA5L2X5R1E155K160AA</a>
			±20%	<a href="#">CGA5L3X5R1H155M160AB</a>	<a href="#">CGA5L3X5R1V155M160AB</a>	<a href="#">CGA5L2X5R1E155M160AA</a>
	2012	1.25±0.20	±10%	<a href="#">CGA4J3X5R1H225K125AB</a>	<a href="#">CGA4J3X5R1V225K125AB</a>	<a href="#">CGA4J3X5R1E225K125AB</a>
			±20%	<a href="#">CGA4J3X5R1H225M125AB</a>	<a href="#">CGA4J3X5R1V225M125AB</a>	<a href="#">CGA4J3X5R1E225M125AB</a>
3216	1.60+0.30,-0.10	±10%	<a href="#">CGA5L3X5R1H225K160AB</a>	<a href="#">CGA5L3X5R1V225K160AB</a>	<a href="#">CGA5L2X5R1E225K160AA</a>	
		±20%	<a href="#">CGA5L3X5R1H225M160AB</a>	<a href="#">CGA5L3X5R1V225M160AB</a>	<a href="#">CGA5L2X5R1E225M160AA</a>	
2.2µF	2012	1.25±0.20	±10%	<a href="#">CGA4J3X5R1H335K125AB</a>	<a href="#">CGA4J3X5R1V335K125AB</a>	<a href="#">CGA4J3X5R1E335K125AB</a>
			±20%	<a href="#">CGA4J3X5R1H335M125AB</a>	<a href="#">CGA4J3X5R1V335M125AB</a>	<a href="#">CGA4J3X5R1E335M125AB</a>
	3216	1.60+0.30,-0.10	±10%	<a href="#">CGA5L3X5R1H335K160AB</a>	<a href="#">CGA5L3X5R1V335K160AB</a>	<a href="#">CGA5L2X5R1E335K160AA</a>
			±20%	<a href="#">CGA5L3X5R1H335M160AB</a>	<a href="#">CGA5L3X5R1V335M160AB</a>	<a href="#">CGA5L2X5R1E335M160AA</a>
	2012	1.25±0.20	±10%	<a href="#">CGA4J3X5R1H475K125AB</a>	<a href="#">CGA4J3X5R1V475K125AB</a>	<a href="#">CGA4J3X5R1E475K125AB</a>
			±20%	<a href="#">CGA4J3X5R1H475M125AB</a>	<a href="#">CGA4J3X5R1V475M125AB</a>	<a href="#">CGA4J3X5R1E475M125AB</a>
3216	1.60+0.30,-0.10	±10%	<a href="#">CGA5L3X5R1H475K160AB</a>	<a href="#">CGA5L3X5R1V475K160AB</a>	<a href="#">CGA5L2X5R1E475K160AA</a>	
		±20%	<a href="#">CGA5L3X5R1H475M160AB</a>	<a href="#">CGA5L3X5R1V475M160AB</a>	<a href="#">CGA5L2X5R1E475M160AA</a>	
6.8µF	3216	1.60+0.30,-0.10	±10%	<a href="#">CGA5L3X5R1H685K160AB</a>	<a href="#">CGA5L3X5R1V685K160AB</a>	<a href="#">CGA5L3X5R1E685K160AB</a>
			±20%	<a href="#">CGA5L3X5R1H685M160AB</a>	<a href="#">CGA5L3X5R1V685M160AB</a>	<a href="#">CGA5L3X5R1E685M160AB</a>
10µF	3216	1.60+0.30,-0.10	±10%	<a href="#">CGA5L3X5R1H106K160AB</a>	<a href="#">CGA5L3X5R1V106K160AB</a>	<a href="#">CGA5L3X5R1E106K160AB</a>
			±20%	<a href="#">CGA5L3X5R1H106M160AB</a>	<a href="#">CGA5L3X5R1V106M160AB</a>	<a href="#">CGA5L3X5R1E106M160AB</a>

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# MULTILAYER CERAMIC CHIP CAPACITORS TDK

## Capacitance range table

Temperature characteristic: X5R (-55 to +85°C, ±15%)

Capacitance	Dimensions	Thickness (mm)	Capacitance tolerance	Catalog number		
				Rated voltage Edc:		
				16V	10V	6.3V
33nF	1005	0.50±0.05	±10%	<a href="#">CGA2B2X5R1C333K050BA</a>		
			±20%	<a href="#">CGA2B2X5R1C333M050BA</a>		
47nF	1005	0.50±0.05	±10%	<a href="#">CGA2B2X5R1C473K050BA</a>		
			±20%	<a href="#">CGA2B2X5R1C473M050BA</a>		
68nF	1005	0.50±0.05	±10%	<a href="#">CGA2B2X5R1C683K050BA</a>		
			±20%	<a href="#">CGA2B2X5R1C683M050BA</a>		
100nF	1005	0.50±0.05	±10%	<a href="#">CGA2B2X5R1C104K050BA</a>	<a href="#">CGA2B2X5R1A104K050BA</a>	
			±20%	<a href="#">CGA2B2X5R1C104M050BA</a>	<a href="#">CGA2B2X5R1A104M050BA</a>	
150nF	1005	0.50±0.05	±10%	<a href="#">CGA2B1X5R1C154K050BC</a>	<a href="#">CGA2B3X5R1A154K050BB</a>	
			±20%	<a href="#">CGA2B1X5R1C154M050BC</a>	<a href="#">CGA2B3X5R1A154M050BB</a>	
220nF	1005	0.50±0.05	±10%	<a href="#">CGA2B1X5R1C224K050BC</a>	<a href="#">CGA2B3X5R1A224K050BB</a>	
			±20%	<a href="#">CGA2B1X5R1C224M050BC</a>	<a href="#">CGA2B3X5R1A224M050BB</a>	
330nF	1608	0.80±0.10	±10%	<a href="#">CGA3E2X5R1C224K080AA</a>		
			±20%	<a href="#">CGA3E2X5R1C224M080AA</a>		
470nF	1608	0.80±0.10	±10%	<a href="#">CGA3E2X5R1C334K080AA</a>	<a href="#">CGA3E2X5R1A334K080AA</a>	
			±20%	<a href="#">CGA3E2X5R1C334M080AA</a>	<a href="#">CGA3E2X5R1A334M080AA</a>	
680nF	1608	0.80±0.10	±10%	<a href="#">CGA3E2X5R1C474K080AA</a>	<a href="#">CGA3E2X5R1A474K080AA</a>	
			±20%	<a href="#">CGA3E2X5R1C474M080AA</a>	<a href="#">CGA3E2X5R1A474M080AA</a>	
1µF	1608	0.80±0.10	±10%	<a href="#">CGA3E2X5R1C684K080AA</a>	<a href="#">CGA3E2X5R1A684K080AA</a>	
			±20%	<a href="#">CGA3E2X5R1C684M080AA</a>	<a href="#">CGA3E2X5R1A684M080AA</a>	
1.5µF	2012	1.25±0.20	±10%	<a href="#">CGA4J2X5R1C105K125AA</a>		
			±20%	<a href="#">CGA4J2X5R1C105M125AA</a>		
2.2µF	1608	0.80±0.10	±10%	<a href="#">CGA3E1X5R1C105K080AC</a>	<a href="#">CGA3E2X5R1A105K080AA</a>	
			±20%	<a href="#">CGA3E1X5R1C105M080AC</a>	<a href="#">CGA3E2X5R1A105M080AA</a>	
3.3µF	2012	1.25±0.20	±10%	<a href="#">CGA4J2X5R1C155K125AA</a>		
			±20%	<a href="#">CGA4J2X5R1C155M125AA</a>		
4.7µF	1608	0.80±0.10	±10%	<a href="#">CGA3E1X5R1C155K080AC</a>	<a href="#">CGA3E3X5R1A155K080AB</a>	
			±20%	<a href="#">CGA3E1X5R1C155M080AC</a>	<a href="#">CGA3E3X5R1A155M080AB</a>	
6.8µF	2012	1.25±0.20	±10%	<a href="#">CGA4J2X5R1C225K125AA</a>	<a href="#">CGA4J2X5R1A225K125AA</a>	
			±20%	<a href="#">CGA4J2X5R1C225M125AA</a>	<a href="#">CGA4J2X5R1A225M125AA</a>	
10µF	1608	0.80±0.10	±10%	<a href="#">CGA3E1X5R1C225K080AC</a>	<a href="#">CGA3E1X5R0J335K080AB</a>	
			±20%	<a href="#">CGA3E1X5R1C225M080AC</a>	<a href="#">CGA3E1X5R0J335M080AB</a>	
15µF	2012	1.25±0.20	±10%	<a href="#">CGA4J3X5R1A335K125AA</a>	<a href="#">CGA4J2X5R1A335K125AA</a>	
			±20%	<a href="#">CGA4J3X5R1C335M125AB</a>	<a href="#">CGA4J2X5R1A335M125AA</a>	
22µF	1608	0.80±0.10	±10%		<a href="#">CGA3E1X5R0J475K080AC</a>	
			±20%		<a href="#">CGA3E1X5R0J475M080AC</a>	
33µF	2012	1.25±0.20	±10%	<a href="#">CGA4J3X5R1C475K125AB</a>	<a href="#">CGA4J2X5R1A475K125AA</a>	
			±20%	<a href="#">CGA4J3X5R1C475M125AB</a>	<a href="#">CGA4J2X5R1A475M125AA</a>	
47µF	3216	1.60+0.30,-0.10	±10%	<a href="#">CGA5L2X5R1C475K160AA</a>		
			±20%	<a href="#">CGA5L2X5R1C475M160AA</a>		
68µF	2012	1.25±0.20	±10%	<a href="#">CGA4J1X5R1C685K125AC</a>	<a href="#">CGA4J3X5R1A685K125AB</a>	
			±20%	<a href="#">CGA4J1X5R1C685M125AC</a>	<a href="#">CGA4J3X5R1A685M125AB</a>	
100µF	3216	1.60+0.30,-0.10	±10%	<a href="#">CGA5L2X5R1C685K160AA</a>		
			±20%	<a href="#">CGA5L2X5R1C685M160AA</a>		
150µF	2012	1.25±0.20	±10%	<a href="#">CGA4J1X5R1C106K125AC</a>	<a href="#">CGA4J3X5R1A106K125AB</a>	
			±20%	<a href="#">CGA4J1X5R1C106M125AC</a>	<a href="#">CGA4J3X5R1A106M125AB</a>	
220µF	3216	1.60+0.30,-0.10	±10%	<a href="#">CGA5L1X5R1C106K160AC</a>		
			±20%	<a href="#">CGA5L1X5R1C106M160AC</a>		

■ Gray items: These products are not recommended for new designs.  
Click the part numbers for details.

## MULTILAYER CERAMIC CHIP CAPACITORS



## Capacitance range table

Temperature characteristic: X7R (-55 to +125°C, ±15%)

Capacitance	Dimensions	Thickness (mm)	Capacitance tolerance	Catalog number		
				Rated voltage Edc: 50V	Rated voltage Edc: 35V	Rated voltage Edc: 25V
100pF	603	0.30±0.03	±10%	<a href="#">CGA1A2X7R1H101K030BA</a>	<a href="#">CGA1A2X7R1E101K030BA</a>	<a href="#">CGA1A2X7R1E101K030BA</a>
			±20%	<a href="#">CGA1A2X7R1H101M030BA</a>	<a href="#">CGA1A2X7R1E101M030BA</a>	<a href="#">CGA1A2X7R1E101M030BA</a>
150pF	603	0.30±0.03	±10%	<a href="#">CGA1A2X7R1H151K030BA</a>	<a href="#">CGA1A2X7R1E151K030BA</a>	<a href="#">CGA1A2X7R1E151K030BA</a>
			±20%	<a href="#">CGA1A2X7R1H151M030BA</a>	<a href="#">CGA1A2X7R1E151M030BA</a>	<a href="#">CGA1A2X7R1E151M030BA</a>
220pF	603	0.30±0.03	±10%	<a href="#">CGA1A2X7R1H221K030BA</a>	<a href="#">CGA1A2X7R1E221K030BA</a>	<a href="#">CGA1A2X7R1E221K030BA</a>
			±20%	<a href="#">CGA1A2X7R1H221M030BA</a>	<a href="#">CGA1A2X7R1E221M030BA</a>	<a href="#">CGA1A2X7R1E221M030BA</a>
	1005	0.50±0.05	±10%	<a href="#">CGA2B2X7R1H221K050BA</a>	<a href="#">CGA2B2X7R1E221K050BA</a>	<a href="#">CGA2B2X7R1E221M030BA</a>
			±20%	<a href="#">CGA2B2X7R1H221M050BA</a>	<a href="#">CGA2B2X7R1E221M050BA</a>	<a href="#">CGA2B2X7R1E221M050BA</a>
330pF	603	0.30±0.03	±10%	<a href="#">CGA1A2X7R1H331K030BA</a>	<a href="#">CGA1A2X7R1E331K030BA</a>	<a href="#">CGA1A2X7R1E331M030BA</a>
			±20%	<a href="#">CGA1A2X7R1H331M030BA</a>	<a href="#">CGA1A2X7R1E331M030BA</a>	<a href="#">CGA1A2X7R1E331M030BA</a>
	1005	0.50±0.05	±10%	<a href="#">CGA2B2X7R1H331K050BA</a>	<a href="#">CGA2B2X7R1E331K050BA</a>	<a href="#">CGA2B2X7R1E331M030BA</a>
			±20%	<a href="#">CGA2B2X7R1H331M050BA</a>	<a href="#">CGA2B2X7R1E331M050BA</a>	<a href="#">CGA2B2X7R1E331M050BA</a>
470pF	603	0.30±0.03	±10%	<a href="#">CGA1A2X7R1H471K030BA</a>	<a href="#">CGA1A2X7R1E471K030BA</a>	<a href="#">CGA1A2X7R1E471M030BA</a>
			±20%	<a href="#">CGA1A2X7R1H471M030BA</a>	<a href="#">CGA1A2X7R1E471M030BA</a>	<a href="#">CGA1A2X7R1E471M030BA</a>
	1005	0.50±0.05	±10%	<a href="#">CGA2B2X7R1H471K050BA</a>	<a href="#">CGA2B2X7R1E471K050BA</a>	<a href="#">CGA2B2X7R1E471M030BA</a>
			±20%	<a href="#">CGA2B2X7R1H471M050BA</a>	<a href="#">CGA2B2X7R1E471M050BA</a>	<a href="#">CGA2B2X7R1E471M050BA</a>
680pF	603	0.30±0.03	±10%	<a href="#">CGA1A2X7R1H681K030BA</a>	<a href="#">CGA1A2X7R1E681K030BA</a>	<a href="#">CGA1A2X7R1E681M030BA</a>
			±20%	<a href="#">CGA1A2X7R1H681M030BA</a>	<a href="#">CGA1A2X7R1E681M030BA</a>	<a href="#">CGA1A2X7R1E681M030BA</a>
	1005	0.50±0.05	±10%	<a href="#">CGA2B2X7R1H681K050BA</a>	<a href="#">CGA2B2X7R1E681K050BA</a>	<a href="#">CGA2B2X7R1E681M030BA</a>
			±20%	<a href="#">CGA2B2X7R1H681M050BA</a>	<a href="#">CGA2B2X7R1E681M050BA</a>	<a href="#">CGA2B2X7R1E681M050BA</a>
1nF	603	0.30±0.03	±10%	<a href="#">CGA1A2X7R1H102K030BA</a>	<a href="#">CGA1A2X7R1E102K030BA</a>	<a href="#">CGA1A2X7R1E102M030BA</a>
			±20%	<a href="#">CGA1A2X7R1H102M030BA</a>	<a href="#">CGA1A2X7R1E102M030BA</a>	<a href="#">CGA1A2X7R1E102M030BA</a>
	1005	0.50±0.05	±10%	<a href="#">CGA2B2X7R1H102K050BA</a>	<a href="#">CGA2B2X7R1E102K050BA</a>	<a href="#">CGA2B2X7R1E102M030BA</a>
			±20%	<a href="#">CGA2B2X7R1H102M050BA</a>	<a href="#">CGA2B2X7R1E102M050BA</a>	<a href="#">CGA2B2X7R1E102M050BA</a>
	1608	0.80±0.10	±10%	<a href="#">CGA3E2X7R1H102K080AA</a>	<a href="#">CGA3E2X7R1E102K080AA</a>	<a href="#">CGA3E2X7R1E102M080AA</a>
			±20%	<a href="#">CGA3E2X7R1H102M080AA</a>	<a href="#">CGA3E2X7R1E102M080AA</a>	<a href="#">CGA3E2X7R1E102M080AA</a>
1.5nF	603	0.30±0.03	±10%	<a href="#">CGA1A2X7R1H152K030BA</a>	<a href="#">CGA1A2X7R1E152K030BA</a>	<a href="#">CGA1A2X7R1E152M030BA</a>
			±20%	<a href="#">CGA1A2X7R1H152M030BA</a>	<a href="#">CGA1A2X7R1E152M030BA</a>	<a href="#">CGA1A2X7R1E152M030BA</a>
	1005	0.50±0.05	±10%	<a href="#">CGA2B2X7R1H152K050BA</a>	<a href="#">CGA2B2X7R1E152K050BA</a>	<a href="#">CGA2B2X7R1E152M030BA</a>
			±20%	<a href="#">CGA2B2X7R1H152M050BA</a>	<a href="#">CGA2B2X7R1E152M050BA</a>	<a href="#">CGA2B2X7R1E152M050BA</a>
	1608	0.80±0.10	±10%	<a href="#">CGA3E2X7R1H152K080AA</a>	<a href="#">CGA3E2X7R1E152K080AA</a>	<a href="#">CGA3E2X7R1E152M080AA</a>
			±20%	<a href="#">CGA3E2X7R1H152M080AA</a>	<a href="#">CGA3E2X7R1E152M080AA</a>	<a href="#">CGA3E2X7R1E152M080AA</a>
2.2nF	603	0.30±0.03	±10%	<a href="#">CGA1A2X7R1H222K030BA</a>	<a href="#">CGA1A2X7R1E222K030BA</a>	<a href="#">CGA1A2X7R1E222M030BA</a>
			±20%	<a href="#">CGA1A2X7R1H222M030BA</a>	<a href="#">CGA1A2X7R1E222M030BA</a>	<a href="#">CGA1A2X7R1E222M030BA</a>
	1005	0.50±0.05	±10%	<a href="#">CGA2B2X7R1H222K050BA</a>	<a href="#">CGA2B2X7R1E222K050BA</a>	<a href="#">CGA2B2X7R1E222M030BA</a>
			±20%	<a href="#">CGA2B2X7R1H222M050BA</a>	<a href="#">CGA2B2X7R1E222M050BA</a>	<a href="#">CGA2B2X7R1E222M050BA</a>
	1608	0.80±0.10	±10%	<a href="#">CGA3E2X7R1H222K080AA</a>	<a href="#">CGA3E2X7R1E222K080AA</a>	<a href="#">CGA3E2X7R1E222M080AA</a>
			±20%	<a href="#">CGA3E2X7R1H222M080AA</a>	<a href="#">CGA3E2X7R1E222M080AA</a>	<a href="#">CGA3E2X7R1E222M080AA</a>
3.3nF	603	0.30±0.03	±10%	<a href="#">CGA1A2X7R1H332K030BA</a>	<a href="#">CGA1A2X7R1E332K030BA</a>	<a href="#">CGA1A2X7R1E332M030BA</a>
			±20%	<a href="#">CGA1A2X7R1H332M030BA</a>	<a href="#">CGA1A2X7R1E332M030BA</a>	<a href="#">CGA1A2X7R1E332M030BA</a>
	1005	0.50±0.05	±10%	<a href="#">CGA2B2X7R1H332K050BA</a>	<a href="#">CGA2B2X7R1E332K050BA</a>	<a href="#">CGA2B2X7R1E332M030BA</a>
			±20%	<a href="#">CGA2B2X7R1H332M050BA</a>	<a href="#">CGA2B2X7R1E332M050BA</a>	<a href="#">CGA2B2X7R1E332M050BA</a>
	1608	0.80±0.10	±10%	<a href="#">CGA3E2X7R1H332K080AA</a>	<a href="#">CGA3E2X7R1E332K080AA</a>	<a href="#">CGA3E2X7R1E332M080AA</a>
			±20%	<a href="#">CGA3E2X7R1H332M080AA</a>	<a href="#">CGA3E2X7R1E332M080AA</a>	<a href="#">CGA3E2X7R1E332M080AA</a>
4.7nF	1005	0.50±0.05	±10%	<a href="#">CGA2B2X7R1H472K050BA</a>	<a href="#">CGA2B2X7R1E472K050BA</a>	<a href="#">CGA2B2X7R1E472M050BA</a>
			±20%	<a href="#">CGA2B2X7R1H472M050BA</a>	<a href="#">CGA2B2X7R1E472M050BA</a>	<a href="#">CGA2B2X7R1E472M050BA</a>
	1608	0.80±0.10	±10%	<a href="#">CGA3E2X7R1H472K080AA</a>	<a href="#">CGA3E2X7R1E472K080AA</a>	<a href="#">CGA3E2X7R1E472M080AA</a>
			±20%	<a href="#">CGA3E2X7R1H472M080AA</a>	<a href="#">CGA3E2X7R1E472M080AA</a>	<a href="#">CGA3E2X7R1E472M080AA</a>
6.8nF	1005	0.50±0.05	±10%	<a href="#">CGA2B2X7R1H682K050BA</a>	<a href="#">CGA2B2X7R1E682K050BA</a>	<a href="#">CGA2B2X7R1E682M050BA</a>
			±20%	<a href="#">CGA2B2X7R1H682M050BA</a>	<a href="#">CGA2B2X7R1E682M050BA</a>	<a href="#">CGA2B2X7R1E682M050BA</a>
	1608	0.80±0.10	±10%	<a href="#">CGA3E2X7R1H682K080AA</a>	<a href="#">CGA3E2X7R1E682K080AA</a>	<a href="#">CGA3E2X7R1E682M080AA</a>
			±20%	<a href="#">CGA3E2X7R1H682M080AA</a>	<a href="#">CGA3E2X7R1E682M080AA</a>	<a href="#">CGA3E2X7R1E682M080AA</a>
10nF	1005	0.50±0.05	±10%	<a href="#">CGA2B3X7R1H103K050BB</a>	<a href="#">CGA2B3X7R1V103K050BB</a>	<a href="#">CGA2B2X7R1E103K050BA</a>
			±20%	<a href="#">CGA2B3X7R1H103M050BB</a>	<a href="#">CGA2B3X7R1V103M050BB</a>	<a href="#">CGA2B2X7R1E103M050BA</a>
	1608	0.80±0.10	±10%	<a href="#">CGA3E2X7R1H103K080AA</a>	<a href="#">CGA3E2X7R1V103K080AA</a>	<a href="#">CGA3E2X7R1E103K080AA</a>
			±20%	<a href="#">CGA3E2X7R1H103M080AA</a>	<a href="#">CGA3E2X7R1V103M080AA</a>	<a href="#">CGA3E2X7R1E103M080AA</a>
15nF	1005	0.50±0.05	±10%	<a href="#">CGA2B3X7R1H153K050BB</a>	<a href="#">CGA2B3X7R1V153K050BB</a>	<a href="#">CGA2B2X7R1E153K050BA</a>
			±20%	<a href="#">CGA2B3X7R1H153M050BB</a>	<a href="#">CGA2B3X7R1V153M050BB</a>	<a href="#">CGA2B2X7R1E153M050BA</a>
	1608	0.80±0.10	±10%	<a href="#">CGA3E2X7R1H153K080AA</a>	<a href="#">CGA3E2X7R1V153K080AA</a>	<a href="#">CGA3E2X7R1E153M050BA</a>
			±20%	<a href="#">CGA3E2X7R1H153M080AA</a>	<a href="#">CGA3E2X7R1V153M080AA</a>	<a href="#">CGA3E2X7R1E153M050BA</a>
22nF	1005	0.50±0.05	±10%	<a href="#">CGA2B3X7R1H223K050BB</a>	<a href="#">CGA2B3X7R1V223K050BB</a>	<a href="#">CGA2B2X7R1E223K050BA</a>
			±20%	<a href="#">CGA2B3X7R1H223M050BB</a>	<a href="#">CGA2B3X7R1V223M050BB</a>	<a href="#">CGA2B2X7R1E223M050BA</a>
	1608	0.80±0.10	±10%	<a href="#">CGA3E2X7R1H223K080AA</a>	<a href="#">CGA3E2X7R1V223K080AA</a>	<a href="#">CGA3E2X7R1E223M050BA</a>
			±20%	<a href="#">CGA3E2X7R1H223M080AA</a>	<a href="#">CGA3E2X7R1V223M080AA</a>	<a href="#">CGA3E2X7R1E223M050BA</a>

Click the part numbers for details.

# MULTILAYER CERAMIC CHIP CAPACITORS TDK

## Capacitance range table

Temperature characteristic: X7R (-55 to +125°C, ±15%)

Capacitance	Dimensions	Thickness (mm)	Capacitance tolerance	Catalog number		
				Rated voltage Edc: 50V	Rated voltage Edc: 35V	Rated voltage Edc: 25V
33nF	1005	0.50±0.05	±10% ±20%	<a href="#">CGA2B3X7R1H333K050BB</a> <a href="#">CGA2B3X7R1H333M050BB</a>	<a href="#">CGA2B3X7R1V333K050BB</a> <a href="#">CGA2B3X7R1V333M050BB</a>	<a href="#">CGA2B1X7R1E333K050BC</a> <a href="#">CGA2B1X7R1E333M050BC</a>
	1608	0.80±0.10	±10% ±20%	<a href="#">CGA3E2X7R1H333K080AA</a> <a href="#">CGA3E2X7R1H333M080AA</a>		
47nF	1005	0.50±0.05	±10% ±20%	<a href="#">CGA2B3X7R1H473K050BB</a> <a href="#">CGA2B3X7R1H473M050BB</a>	<a href="#">CGA2B3X7R1V473K050BB</a> <a href="#">CGA2B3X7R1V473M050BB</a>	<a href="#">CGA2B1X7R1E473K050BC</a> <a href="#">CGA2B1X7R1E473M050BC</a>
	1608	0.80±0.10	±10% ±20%	<a href="#">CGA3E2X7R1H473K080AA</a> <a href="#">CGA3E2X7R1H473M080AA</a>		
68nF	1005	0.50±0.05	±10% ±20%	<a href="#">CGA2B3X7R1H683K050BB</a> <a href="#">CGA2B3X7R1H683M050BB</a>	<a href="#">CGA2B3X7R1V683K050BB</a> <a href="#">CGA2B3X7R1V683M050BB</a>	<a href="#">CGA2B3X7R1E683K050BB</a> <a href="#">CGA2B3X7R1E683M050BB</a>
	1608	0.80±0.10	±10% ±20%	<a href="#">CGA3E2X7R1H683K080AA</a> <a href="#">CGA3E2X7R1H683M080AA</a>		
100nF	1005	0.50±0.05	±10% ±20%	<a href="#">CGA2B3X7R1H104K050BB</a> <a href="#">CGA2B3X7R1H104M050BB</a>	<a href="#">CGA2B3X7R1V104K050BB</a> <a href="#">CGA2B3X7R1V104M050BB</a>	<a href="#">CGA2B3X7R1E104K050BB</a> <a href="#">CGA2B3X7R1E104M050BB</a>
	1608	0.80±0.10	±10% ±20%	<a href="#">CGA3E2X7R1H104K080AA</a> <a href="#">CGA3E2X7R1H104M080AA</a>		<a href="#">CGA3E2X7R1E104K080AA</a> <a href="#">CGA3E2X7R1E104M080AA</a>
	2012	1.25±0.20	±10%	<a href="#">CGA4J2X7R1H104K125AA</a>		
	1005	0.50±0.05	±10% ±20%		<a href="#">CGA2B1X7R1V154K050BC</a> <a href="#">CGA2B1X7R1V154M050BC</a>	<a href="#">CGA2B3X7R1E154K050BB</a> <a href="#">CGA2B3X7R1E154M050BB</a>
150nF	1608	0.80±0.10	±10% ±20%	<a href="#">CGA3E3X7R1H154K080AB</a> <a href="#">CGA3E3X7R1H154M080AB</a>	<a href="#">CGA3E3X7R1V154K080AB</a> <a href="#">CGA3E3X7R1V154M080AB</a>	<a href="#">CGA3E2X7R1E154K080AA</a> <a href="#">CGA3E2X7R1E154M080AA</a>
	2012	1.25±0.20	±10% ±20%	<a href="#">CGA4J2X7R1H154K125AA</a> <a href="#">CGA4J2X7R1H154M125AA</a>		
	1005	0.50±0.05	±10% ±20%		<a href="#">CGA2B1X7R1V224K050BC</a> <a href="#">CGA2B1X7R1V224M050BC</a>	<a href="#">CGA2B3X7R1E224K050BB</a> <a href="#">CGA2B3X7R1E224M050BB</a>
	1608	0.80±0.10	±10% ±20%	<a href="#">CGA3E3X7R1H224K080AB</a> <a href="#">CGA3E3X7R1H224M080AB</a>	<a href="#">CGA3E3X7R1V224K080AB</a> <a href="#">CGA3E3X7R1V224M080AB</a>	<a href="#">CGA3E1X7R1E224K080AC</a> <a href="#">CGA3E1X7R1E224M080AC</a>
220nF	2012	1.25±0.20	±10% ±20%	<a href="#">CGA4J2X7R1H224K125AA</a> <a href="#">CGA4J2X7R1H224M125AA</a>		<a href="#">CGA4J2X7R1E224K125AA</a>
	1608	0.80±0.10	±10% ±20%	<a href="#">CGA3E3X7R1H334K080AB</a> <a href="#">CGA3E3X7R1H334M080AB</a>	<a href="#">CGA3E1X7R1V334K080AC</a> <a href="#">CGA3E1X7R1V334M080AC</a>	<a href="#">CGA3E3X7R1E334K080AB</a> <a href="#">CGA3E3X7R1E334M080AB</a>
	2012	1.25±0.20	±10% ±20%	<a href="#">CGA4J2X7R1H334K125AA</a> <a href="#">CGA4J2X7R1H334M125AA</a>		
	1608	0.80±0.10	±10% ±20%	<a href="#">CGA3E3X7R1H474K080AB</a> <a href="#">CGA3E3X7R1H474M080AB</a>	<a href="#">CGA3E1X7R1V474K080AC</a> <a href="#">CGA3E1X7R1V474M080AC</a>	<a href="#">CGA3E3X7R1E474K080AB</a> <a href="#">CGA3E3X7R1E474M080AB</a>
470nF	2012	1.25±0.20	±10% ±20%	<a href="#">CGA4J3X7R1H474K125AB</a> <a href="#">CGA4J3X7R1H474M125AB</a>	<a href="#">CGA4J3X7R1V474K125AB</a> <a href="#">CGA4J3X7R1V474M125AB</a>	<a href="#">CGA4J2X7R1E474K125AA</a> <a href="#">CGA4J2X7R1E474M125AA</a>
	3216	1.60+0.30,-0.10	±10% ±20%	<a href="#">CGA5L2X7R1H474K160AA</a> <a href="#">CGA5L2X7R1H474M160AA</a>		
680nF	1608	0.80±0.10	±10% ±20%		<a href="#">CGA3E1X7R1V684K080AC</a> <a href="#">CGA3E1X7R1V684M080AC</a>	<a href="#">CGA3E1X7R1E684K080AC</a> <a href="#">CGA3E1X7R1E684M080AC</a>
	2012	1.25±0.20	±10% ±20%	<a href="#">CGA4J3X7R1H684K125AB</a> <a href="#">CGA4J3X7R1H684M125AB</a>	<a href="#">CGA4J3X7R1V684K125AB</a> <a href="#">CGA4J3X7R1V684M125AB</a>	<a href="#">CGA4J3X7R1E684K125AB</a> <a href="#">CGA4J3X7R1E684M125AB</a>
	3216	1.60+0.30,-0.10	±10% ±20%	<a href="#">CGA5L2X7R1H684K160AA</a> <a href="#">CGA5L2X7R1H684M160AA</a>		
	1608	0.80±0.10	±10% ±20%		<a href="#">CGA3E1X7R1V105K080AC</a> <a href="#">CGA3E1X7R1V105M080AC</a>	<a href="#">CGA3E1X7R1E105K080AC</a> <a href="#">CGA3E1X7R1E105M080AC</a>
1µF	2012	1.25±0.20	±10% ±20%	<a href="#">CGA4J3X7R1H105K125AB</a> <a href="#">CGA4J3X7R1H105M125AB</a>	<a href="#">CGA4J3X7R1V105K125AB</a> <a href="#">CGA4J3X7R1V105M125AB</a>	<a href="#">CGA4J3X7R1E105K125AB</a> <a href="#">CGA4J3X7R1E105M125AB</a>
	3216	1.60+0.30,-0.10	±10% ±20%	<a href="#">CGA5L3X7R1H105K160AB</a> <a href="#">CGA5L3X7R1H105M160AB</a>		<a href="#">CGA5L2X7R1E105K160AA</a> <a href="#">CGA5L2X7R1E105M160AA</a>
	3225	1.60±0.20	±10% ±20%	<a href="#">CGA6L2X7R1H105K160AA</a> <a href="#">CGA6L2X7R1H105M160AA</a>		
	2012	1.25±0.20	±10% ±20%	<a href="#">CGA4J3X7R1H155K125AB</a> <a href="#">CGA4J3X7R1H155M125AB</a>	<a href="#">CGA4J1X7R1V155K125AC</a> <a href="#">CGA4J1X7R1V155M125AC</a>	<a href="#">CGA4J3X7R1E155K125AB</a> <a href="#">CGA4J3X7R1E155M125AB</a>
1.5µF	3216	1.60+0.30,-0.10	±10% ±20%	<a href="#">CGA5L3X7R1H155K160AB</a> <a href="#">CGA5L3X7R1H155M160AB</a>	<a href="#">CGA5L3X7R1V155K160AB</a> <a href="#">CGA5L3X7R1V155M160AB</a>	<a href="#">CGA5L2X7R1E155K160AA</a> <a href="#">CGA5L2X7R1E155M160AA</a>
	3225	2.00±0.20	±10% ±20%	<a href="#">CGA6M2X7R1H155K200AA</a> <a href="#">CGA6M2X7R1H155M200AA</a>		
	4532	1.60±0.20	±10%	<a href="#">CGA8L2X7R1H155K160KA</a>		
	2012	1.25±0.20	±10% ±20%	<a href="#">CGA4J3X7R1H225K125AB</a> <a href="#">CGA4J3X7R1H225M125AB</a>	<a href="#">CGA4J1X7R1V225K125AC</a> <a href="#">CGA4J1X7R1V225M125AC</a>	<a href="#">CGA4J3X7R1E225K125AB</a> <a href="#">CGA4J3X7R1E225M125AB</a>
2.2µF	3216	1.60+0.30,-0.10	±10% ±20%	<a href="#">CGA5L3X7R1H225K160AB</a> <a href="#">CGA5L3X7R1H225M160AB</a>	<a href="#">CGA5L3X7R1V225K160AB</a> <a href="#">CGA5L3X7R1V225M160AB</a>	<a href="#">CGA5L2X7R1E225K160AA</a> <a href="#">CGA5L2X7R1E225M160AA</a>
	3225	2.00±0.20	±10% ±20%	<a href="#">CGA6M3X7R1H225K200AB</a> <a href="#">CGA6M3X7R1H225M200AB</a>		
	4532	1.60±0.20	±10%	<a href="#">CGA8L2X7R1H225K160KA</a>		
	2012	1.25±0.20	±10% ±20%	<a href="#">CGA4J3X7R1H225K125AB</a> <a href="#">CGA4J3X7R1H225M125AB</a>	<a href="#">CGA4J1X7R1V225K125AC</a> <a href="#">CGA4J1X7R1V225M125AC</a>	<a href="#">CGA4J3X7R1E225K125AB</a> <a href="#">CGA4J3X7R1E225M125AB</a>

■ Gray items: These products are not recommended for new designs.  
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## MULTILAYER CERAMIC CHIP CAPACITORS



## Capacitance range table

Temperature characteristic: X7R (-55 to +125°C, ±15%)

Capacitance	Dimensions	Thickness (mm)	Capacitance tolerance	Catalog number			
				Rated voltage Edc: 75V	Rated voltage Edc: 50V	Rated voltage Edc: 35V	Rated voltage Edc: 25V
3.3µF	2012	1.25±0.20	±10%			<a href="#">CGA4J1X7R1V335K125AC</a>	<a href="#">CGA4J1X7R1E335K125AC</a>
			±20%			<a href="#">CGA4J1X7R1V335M125AC</a>	<a href="#">CGA4J1X7R1E335M125AC</a>
	3216	1.60+0.30,-0.10	±10%		<a href="#">CGA5L3X7R1H335K160AB</a>	<a href="#">CGA5L1X7R1V335K160AC</a>	<a href="#">CGA5L1X7R1E335K160AC</a>
			±20%		<a href="#">CGA5L3X7R1H335M160AB</a>	<a href="#">CGA5L1X7R1V335M160AC</a>	<a href="#">CGA5L1X7R1E335M160AC</a>
	3225	2.50±0.30	±10%		<a href="#">CGA6P3X7R1H335K250AB</a>		
4532	2.00±0.20	±20%		<a href="#">CGA6P3X7R1H335M250AB</a>			
4.7µF	2012	1.25±0.20	±10%		<a href="#">CGA4J1X7R1H475K125AC</a>	<a href="#">CGA4J1X7R1V475K125AC</a>	<a href="#">CGA4J1X7R1E475K125AC</a>
			±20%			<a href="#">CGA4J1X7R1V475M125AC</a>	<a href="#">CGA4J1X7R1E475M125AC</a>
	3216	1.60+0.30,-0.10	±10%		<a href="#">CGA5L3X7R1H475K160AB</a>	<a href="#">CGA5L1X7R1V475K160AC</a>	<a href="#">CGA5L1X7R1E475K160AC</a>
			±20%		<a href="#">CGA5L3X7R1H475M160AB</a>	<a href="#">CGA5L1X7R1V475M160AC</a>	<a href="#">CGA5L1X7R1E475M160AC</a>
	3225	2.50±0.30	±10%		<a href="#">CGA6P3X7R1H475K250AB</a>		
			±20%		<a href="#">CGA6P3X7R1H475M250AB</a>		
	4532	1.60±0.20	±10%				<a href="#">CGA8L2X7R1E475K160KA</a>
	2.00±0.20	±20%		<a href="#">CGA8M3X7R1H475K200KB</a>		<a href="#">CGA8L2X7R1E475M160KA</a>	
6.8µF	3216	1.60+0.30,-0.10	±10%			<a href="#">CGA5L1X7R1V685K160AC</a>	<a href="#">CGA5L1X7R1E685K160AC</a>
			±20%			<a href="#">CGA5L1X7R1V685M160AC</a>	<a href="#">CGA5L1X7R1E685M160AC</a>
	3225	2.50±0.30	±10%			<a href="#">CGA6P3X7R1E685K250AB</a>	
			±20%			<a href="#">CGA6P3X7R1E685M250AB</a>	
	4532	2.50±0.30	±10%		<a href="#">CGA8P3X7R1H685K250KB</a>		
5750	2.50±0.30	±10%		<a href="#">CGA9P2X7R1H685K250KA</a>			
10µF	3216	1.60+0.30,-0.10	±10%		<a href="#">CGA5L1X7R1H106K160AC</a>	<a href="#">CGA5L1X7R1V106K160AC</a>	<a href="#">CGA5L1X7R1E106K160AC</a>
			±20%			<a href="#">CGA5L1X7R1V106M160AC</a>	<a href="#">CGA5L1X7R1E106M160AC</a>
	3225	2.50±0.30	±10%	<a href="#">CGA6P1X7R1N106K250AC</a>		<a href="#">CGA6P1X7R1E106K250AC</a>	
			±20%	<a href="#">CGA6P1X7R1N106M250AC</a>		<a href="#">CGA6P1X7R1E106M250AC</a>	
	4532	2.50±0.30	±10%			<a href="#">CGA8P2X7R1E106K250KA</a>	
5750	2.00±0.20	±20%			<a href="#">CGA9M2X7R1E106M200KA</a>		
15µF	3225	2.00±0.20	±10%		<a href="#">CGA9N3X7R1H106K230KB</a>		
	3225	2.00±0.20	±20%			<a href="#">CGA6M3X7R1E156M200AB</a>	
	4532	2.80±0.30	±20%			<a href="#">CGA8Q3X7R1E156M280KB</a>	
22µF	5750	2.30±0.20	±20%			<a href="#">CGA9N2X7R1E156M230KA</a>	
	3225	2.50±0.30	±20%			<a href="#">CGA6P3X7R1E226M250AB</a>	
	4532	2.50±0.30	±20%			<a href="#">CGA8P1X7R1E226M250KC</a>	
47µF	5750	2.50±0.30	±20%		<a href="#">CGA9P3X7R1H226M250KB</a>	<a href="#">CGA9P2X7R1E226M250KA</a>	
	5750	2.30±0.20	±20%		<a href="#">CGA9N1X7R1V476M230KC</a>	<a href="#">CGA9N3X7R1E476M230KB</a>	

■ Gray items: These products are not recommended for new designs.

Click the part numbers for details.

# MULTILAYER CERAMIC CHIP CAPACITORS

## Capacitance range table

Temperature characteristic: X7R (-55 to +125°C, ±15%)

Capacitance	Dimensions	Thickness (mm)	Capacitance tolerance	Catalog number		
				Rated voltage Edc: 16V	Rated voltage Edc: 10V	Rated voltage Edc: 6.3V
100pF	603	0.30±0.03	±10%	<a href="#">CGA1A2X7R1C101K030BA</a>		
			±20%	<a href="#">CGA1A2X7R1C101M030BA</a>		
150pF	603	0.30±0.03	±10%	<a href="#">CGA1A2X7R1C151K030BA</a>		
			±20%	<a href="#">CGA1A2X7R1C151M030BA</a>		
220pF	603	0.30±0.03	±10%	<a href="#">CGA1A2X7R1C221K030BA</a>		
			±20%	<a href="#">CGA1A2X7R1C221M030BA</a>		
330pF	603	0.30±0.03	±10%	<a href="#">CGA1A2X7R1C331K030BA</a>		
			±20%	<a href="#">CGA1A2X7R1C331M030BA</a>		
470pF	603	0.30±0.03	±10%	<a href="#">CGA1A2X7R1C471K030BA</a>		
			±20%	<a href="#">CGA1A2X7R1C471M030BA</a>		
680pF	603	0.30±0.03	±10%	<a href="#">CGA1A2X7R1C681K030BA</a>		
			±20%	<a href="#">CGA1A2X7R1C681M030BA</a>		
1nF	603	0.30±0.03	±10%	<a href="#">CGA1A2X7R1C102K030BA</a>		
			±20%	<a href="#">CGA1A2X7R1C102M030BA</a>		
1.5nF	603	0.30±0.03	±10%	<a href="#">CGA1A2X7R1C152K030BA</a>		
			±20%	<a href="#">CGA1A2X7R1C152M030BA</a>		
2.2nF	603	0.30±0.03	±10%	<a href="#">CGA1A2X7R1C222K030BA</a>		
			±20%	<a href="#">CGA1A2X7R1C222M030BA</a>		
3.3nF	603	0.30±0.03	±10%	<a href="#">CGA1A2X7R1C332K030BA</a>		
			±20%	<a href="#">CGA1A2X7R1C332M030BA</a>		
4.7nF	603	0.30±0.03	±10%	<a href="#">CGA1A2X7R1C472K030BA</a>		
			±20%	<a href="#">CGA1A2X7R1C472M030BA</a>		
6.8nF	603	0.30±0.03	±10%	<a href="#">CGA1A2X7R1C682K030BA</a>		
			±20%	<a href="#">CGA1A2X7R1C682M030BA</a>		
10nF	603	0.30±0.03	±10%		<a href="#">CGA1A2X7R1A103K030BA</a>	<a href="#">CGA1A2X7R0J103K030BA</a>
			±20%		<a href="#">CGA1A2X7R1A103M030BA</a>	<a href="#">CGA1A2X7R0J103M030BA</a>
33nF	1005	0.50±0.05	±10%	<a href="#">CGA2B2X7R1C333K050BA</a>		
			±20%	<a href="#">CGA2B2X7R1C333M050BA</a>		
47nF	1005	0.50±0.05	±10%	<a href="#">CGA2B2X7R1C473K050BA</a>		
			±20%	<a href="#">CGA2B2X7R1C473M050BA</a>		
68nF	1005	0.50±0.05	±10%	<a href="#">CGA2B1X7R1C683K050BC</a>		
			±20%	<a href="#">CGA2B1X7R1C683M050BC</a>		
100nF	1005	0.50±0.05	±10%	<a href="#">CGA2B1X7R1C104K050BC</a>		
			±20%	<a href="#">CGA2B1X7R1C104M050BC</a>		
150nF	1005	0.50±0.05	±10%	<a href="#">CGA2B2X7R1C154K050BA</a>	<a href="#">CGA2B1X7R1A154K050BC</a>	<a href="#">CGA2B3X7R0J154K050BB</a>
			±20%	<a href="#">CGA2B2X7R1C154M050BA</a>	<a href="#">CGA2B1X7R1A154M050BC</a>	<a href="#">CGA2B3X7R0J154M050BB</a>
220nF	1005	0.50±0.05	±10%	<a href="#">CGA2B2X7R1C224K050BA</a>	<a href="#">CGA2B1X7R1A224K050BC</a>	<a href="#">CGA2B3X7R0J224K050BB</a>
			±20%	<a href="#">CGA2B2X7R1C224M050BA</a>	<a href="#">CGA2B1X7R1A224M050BC</a>	<a href="#">CGA2B3X7R0J224M050BB</a>
330nF	1608	0.80±0.10	±10%	<a href="#">CGA3E2X7R1C224K080AA</a>		
			±20%	<a href="#">CGA3E2X7R1C224M080AA</a>		
470nF	1608	0.80±0.10	±10%	<a href="#">CGA3E1X7R1C334K080AC</a>		
			±20%	<a href="#">CGA3E1X7R1C334M080AC</a>		
680nF	2012	1.25±0.20	±10%	<a href="#">CGA4J2X7R1C474K125AA</a>		
			±20%	<a href="#">CGA4J2X7R1C474M125AA</a>		
1µF	1608	0.80±0.10	±10%	<a href="#">CGA3E1X7R1C105K080AC</a>		
			±20%	<a href="#">CGA3E1X7R1C105M080AC</a>		
1.5µF	2012	1.25±0.20	±10%	<a href="#">CGA4J3X7R1C105K125AA</a>		<a href="#">CGA3E1X7R0J155K080AC</a>
			±20%	<a href="#">CGA4J3X7R1C105M125AA</a>		<a href="#">CGA3E1X7R0J155M080AC</a>
2.2µF	1608	0.80±0.10	±10%	<a href="#">CGA4J3X7R1C155K125AB</a>		
			±20%	<a href="#">CGA4J3X7R1C155M125AB</a>		
3.3µF	2012	1.25±0.20	±10%	<a href="#">CGA4J3X7R1C225K125AB</a>	<a href="#">CGA4J3X7R1A335K125AB</a>	
			±20%	<a href="#">CGA4J3X7R1C225M125AB</a>	<a href="#">CGA4J3X7R1A335M125AB</a>	
4.7µF	2012	1.25±0.20	±10%	<a href="#">CGA4J3X7R1C475K125AB</a>	<a href="#">CGA4J3X7R1A475K125AB</a>	
			±20%	<a href="#">CGA4J3X7R1C475M125AB</a>	<a href="#">CGA4J3X7R1A475M125AB</a>	
3216	1.60+0.30,-0.10		±10%	<a href="#">CGA5L3X7R1C475K160AB</a>		
			±20%	<a href="#">CGA5L3X7R1C475M160AB</a>		

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## Capacitance range table

Temperature characteristic: X7R (-55 to +125°C, ±15%)

Capacitance	Dimensions	Thickness (mm)	Capacitance tolerance	Catalog number	
				Rated voltage Edc: 16V	Rated voltage Edc: 6.3V
6.8µF	2012	1.25±0.20	±10%		<a href="#">CGA4J1X7R0J685K125AC</a>
			±20%		<a href="#">CGA4J1X7R0J685M125AC</a>
	3216	1.60+0.30,-0.10	±10%	<a href="#">CGA5L1X7R1C685K160AC</a>	
			±20%	<a href="#">CGA5L1X7R1C685M160AC</a>	
10µF	2012	1.25±0.20	±10%		<a href="#">CGA4J1X7R0J106K125AC</a>
			±20%		<a href="#">CGA4J1X7R0J106M125AC</a>
	3216	1.60+0.30,-0.10	±10%	<a href="#">CGA5L1X7R1C106K160AC</a>	
			±20%	<a href="#">CGA5L1X7R1C106M160AC</a>	
15µF	3225	2.00±0.20	±10%	<a href="#">CGA6M3X7R1C106K200AB</a>	
			±20%	<a href="#">CGA6M3X7R1C106M200AB</a>	
	3216	1.60+0.30,-0.10	±10%	<a href="#">CGA6P3X7R1C156M250AB</a>	
			±20%		<a href="#">CGA5L1X7R0J226M160AC</a>
22µF	3225	2.50±0.30	±20%	<a href="#">CGA6P1X7R1C226M250AC</a>	
			±20%	<a href="#">CGA8N3X7R1C226M230KB</a>	
33µF	4532	2.50±0.30	±20%	<a href="#">CGA8P1X7R1C336M250KC</a>	
47µF	5750	2.30±0.20	±20%	<a href="#">CGA9N3X7R1C476M230KB</a>	

■ Gray items: These products are not recommended for new designs.

Click the part numbers for details.

## MULTILAYER CERAMIC CHIP CAPACITORS



## Capacitance range table

Temperature characteristic: X7S (-55 to +125°C, ±22%)

Capacitance	Dimensions	Thickness (mm)	Capacitance tolerance	Catalog number		
				Rated voltage Edc: 50V	Rated voltage Edc: 25V	Rated voltage Edc: 16V
330nF	1005	0.50±0.05	±10%			<a href="#">CGA2B1X7S1C334K050BC</a>
			±20%			<a href="#">CGA2B1X7S1C334M050BC</a>
470nF	1005	0.50±0.05	±10%			<a href="#">CGA2B1X7S1C474K050BC</a>
			±20%			<a href="#">CGA2B1X7S1C474M050BC</a>
1.5µF	1608	0.80±0.10	±10%			<a href="#">CGA3E1X7S1C155K080AC</a>
			±20%			<a href="#">CGA3E1X7S1C155M080AC</a>
2.2µF	1608	0.80±0.10	±10%			<a href="#">CGA3E1X7S1C225K080AC</a>
			±20%			<a href="#">CGA3E1X7S1C225M080AC</a>
4.7µF	3225	2.30±0.20	±10%	<a href="#">CGA6N3X7S1H475K230AB</a>		
	2012		±10%			<a href="#">CGA4J1X7S1C685K125AC</a>
6.8µF	3225	1.25±0.20	±20%			<a href="#">CGA4J1X7S1C685M125AC</a>
			±10%	<a href="#">CGA6P3X7S1H685K250AB</a>		
10µF	2012	1.25±0.20	±20%	<a href="#">CGA6P3X7S1H685M250AB</a>	<a href="#">CGA4J1X7S1E106K125AC</a>	<a href="#">CGA4J1X7S1C106K125AC</a>
			±10%	<a href="#">CGA6P3X7S1H106K250AB</a>		<a href="#">CGA4J1X7S1C106M125AC</a>
	3225	2.50±0.30	±20%	<a href="#">CGA6P3X7S1H106M250AB</a>		
			±10%			

■ Gray items: These products are not recommended for new designs.  
Click the part numbers for details.

Capacitance	Dimensions	Thickness (mm)	Capacitance tolerance	Catalog number		
				Rated voltage Edc: 10V	Rated voltage Edc: 6.3V	Rated voltage Edc: 4V
330nF	1005	0.50±0.05	±10%	<a href="#">CGA2B3X7S1A334K050BB</a>		
			±20%	<a href="#">CGA2B3X7S1A334M050BB</a>		
470nF	1005	0.50±0.05	±10%	<a href="#">CGA2B3X7S1A474K050BB</a>		
			±20%	<a href="#">CGA2B3X7S1A474M050BB</a>		
1.5µF	1608	0.80±0.10	±10%	<a href="#">CGA3E3X7S1A155K080AB</a>		
			±20%	<a href="#">CGA3E3X7S1A155M080AB</a>		
2.2µF	1608	0.80±0.10	±10%	<a href="#">CGA3E3X7S1A225K080AB</a>		
			±20%	<a href="#">CGA3E3X7S1A225M080AB</a>		
6.8µF	2012	1.25±0.20	±10%	<a href="#">CGA4J3X7S1A685K125AB</a>		
	1608		±20%	<a href="#">CGA4J3X7S1A685M125AB</a>		<a href="#">CGA3E1X7S0G106M080AC</a>
10µF	2012	1.25±0.20	±10%	<a href="#">CGA4J3X7S1A106K125AB</a>		
			±20%	<a href="#">CGA4J3X7S1A106M125AB</a>		
15µF	3216	1.60+0.30,-0.10	±20%	<a href="#">CGA5L1X7S1A156M160AC</a>		
22µF	3216	1.60+0.30,-0.10	±20%	<a href="#">CGA5L1X7S1A226M160AC</a>		
33µF	3225	2.00±0.20	±20%	<a href="#">CGA6M1X7S1A336M200AC</a>		
		2.50±0.30	±20%		<a href="#">CGA6P1X7S0J336M250AC</a>	
47µF	3225	2.50±0.30	±20%	<a href="#">CGA6P1X7S1A476M250AC</a>		

■ Gray items: These products are not recommended for new designs.  
Click the part numbers for details.

## Capacitance range table

Temperature characteristic: X7T (-55 to +125°C, +22, -33%)

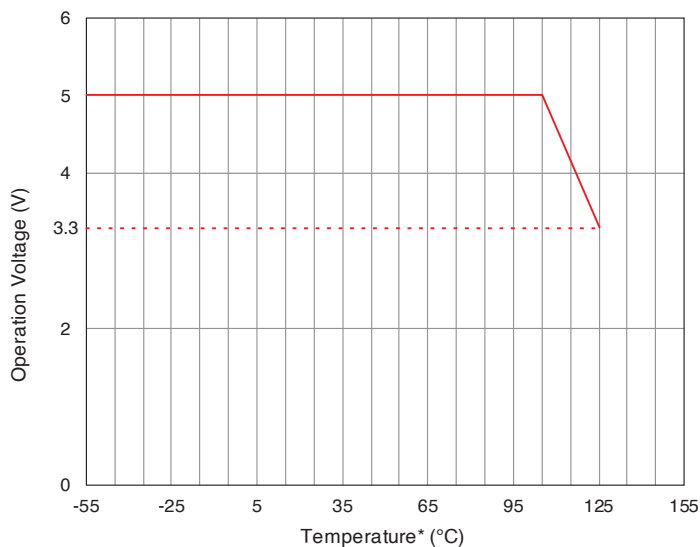
Capacitance	Dimensions	Thickness (mm)	Capacitance tolerance	Catalog number			
				Rated voltage Edc: 10V	Rated voltage Edc: 6.3V	Rated voltage Edc: 4V	Rated voltage Edc: 2.5V
100nF	0603	0.30+0.10,-0.03	±20%			<a href="#">CGA1A1X7T0G104M030BC</a>	
1µF	1005	0.50+0.10,-0.05	±20%			<a href="#">CGA2B1X7T0G105M050BC</a>	
4.7µF	1608	0.80+0.30,-0.10	±10%	<a href="#">CGA3E1X7T1A475K080AC</a>	<a href="#">CGA3E3X7T0J475K080AB</a>		
10µF	1608	0.80+0.30,-0.10	±20%	<a href="#">CGA3EDX7T1A106M080AU</a>	<a href="#">CGA3E1X7T0J106M080AC</a>	<a href="#">CGA3E3X7T0G106M080AB</a>	
22µF	2012	1.25+0.30,-0.15	±20%		<a href="#">CGA4J1X7T0J226M125AC</a>		
47µF	3216	1.60+0.40,-0.10	±20%			<a href="#">CGA5L1X7T0G476M160AC</a>	
100µF	3225	2.50+0.40,-0.30	±20%			<a href="#">CGA6P1X7T0G107M250AC</a>	<a href="#">CGA6P3X7T0E107M250AB</a>

Click the part numbers for details.

CGA3EDX7T1A106M080AU is a derating guarantee product.

When the product temperature exceeds 125°C, please use the product within the derated voltage/temperature condition in the figure below

### Rated voltage derating



\* Including self-heating.

## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- ⊖ [View CGA3E2C0G1H332J080AA](#) on WIN SOURCE
- ⊖ [TDK Corporation](#) Information

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