TDK

September 2026

MULTILAYER CERAMIC CHIP CAPACITORS

Automotive grade, general (Up to 75V)

CGA series

CGA1	**0603 [CC0201]**
CGA2	**1005 [CC0402]**
CGA3	**1608 [CC0603]**
CGA4	**2012 [CC0805]**
CGA5	**3216 [CC1206]**
CGA6	**3225 [CC1210]**
CGA8	**4532 [CC1812]**
CGA9	**5750 [CC2220]**

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
(2) Transportation equipment (electric trains, ships, etc.)
(3) Medical equipment (excepting Pharmaceutical Affairs
(4) Power-generation control equipment
(5) Atomic energy-related equipment
(6) Seabed equipment
(7) Transportation control equipment
(8) Public information-processing equipment
(9) Military equipment
(10) Electric heating apparatus, burning equipment
(11) Disaster prevention/crime prevention 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.

In addition, although the products listed in this specification are intended for use in automotive applications as described above, they are not prohibited to use in general electronic equipment, whose performance and/or quality doesn't require a more stringent level of safety or reliability, or whose failure, malfunction or defect could not cause serious damage to society, person or property. Therefore, the description of this caution will be applied, when the products are used in general electronic equipment under a normal operation and usage conditions.

2. We may modify products or discontinue production of a product listed in this catalog without prior notification.

3. 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.

4. 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.

5. Any reproduction or transferring of the contents of this catalog is prohibited without prior permission from our company.

6. 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.

7. 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.

CGA series

General (Up to 75V)

Type CGA1:0603[CC0201], CGA2:1005[CC0402], CGA3:1608[CC0603], CGA4:2012[CC0805], CGA5:3216[CC1206], CGA6:3225[CC1210], CGA8:4532[CC1812], CGA9:5750[CC2220]

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 100μF and the lineup has been expanding to a range of the film capacitor and electrolytic capacitor.

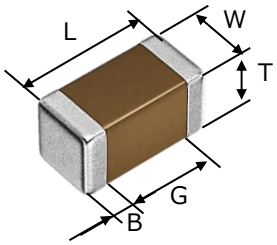
FEATURES

・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

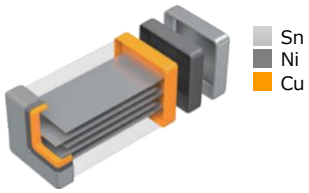
・Smoothing and decoupling use in power lines for automotive applications such as ADAS, autonomous driving system ECU
・LC resonance circuit (C0G type)
・Applications requiring high reliability

SHAPE & DIMENSIONS



L	Product length
W	Product width
T	Product thickness
B	Terminal width
G	Terminal spacing

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.

Dimensions in mm

Type	L	W	T	B	G
CGA1	0.60±0.03	0.30±0.03	0.30±0.03	0.10 min.	0.20 min.
CGA2	1.00±0.05	0.50±0.05	0.50±0.05		0.30 min.
CGA3	1.60±0.10	0.80±0.10	0.80±0.10	0.20 min.	0.30 min.
CGA4	2.00±0.20	1.25±0.20	1.25±0.20		0.50 min.
CGA5	3.20±0.20	1.60±0.20	1.60±0.20		1.00 min.
CGA6	3.20±0.40	2.50±0.30	2.50±0.30		---
CGA8	4.50±0.40	3.20±0.40	3.20±0.40		
CGA9	5.70±0.40	5.00±0.40	2.50±0.30		

Dimensional tolerances are typical values. Please check the actual values on the product page of the website.

・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.

■ CATALOG NUMBER CONSTRUCTION

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

(1) Series

(2) Dimensions code

Dimensions code	EIA	Length	Width	Terminal width
1	CC0201	0.60	0.30	0.10
2	CC0402	1.00	0.50	
3	CC0603	1.60	0.80	0.20
4	CC0805	2.00	1.25	
5	CC1206	3.20	1.60	
6	CC1210	3.20	2.50	
8	CC1812	4.50	3.20	
9	CC2220	5.70	5.00	

Dimensions are typical values.

(3) Thickness code

Code	Nominal 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

Code	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/℃	-55 to +125 ℃
X7R	±15%	
X7S	±22%	
X7T	+22,-33%	
X6S	±22%	-55 to +105 ℃
X5R	±15%	-55 to +85 ℃

(6) Rated voltage (DC)

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

(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 = 0.5 pF
101 = 100 pF
225 = 2,200,000 pF = 2.2 μF

(8) Capacitance tolerance

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

(9) Nominal thickness

Code	Nominal 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	178 mm reel, 4 mm pitch
B	178 mm reel, 2 mm pitch
K	178 mm reel, 8 mm pitch

(11) Special reserved code

Code	Description
A,B,C	TDK internal code
U	Derating guarantee product

Capacitance range chart

CGA1: 0603 [CC0201]

Capacitance		C0G		X7R						X7S			X7T	
(pF)	Code	1H (50V)	1E (25V)	1H (50V)	1V (35V)	1E (25V)	1C (16V)	1A (10V)	0J (6.3V)	1E (25V)	1C (16V)	1A (10V)	0G (4V)	0E (2.5V)
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							■	■					
22,000	223			■										
47,000	473				■	■								
100,000	104									■	■	■	■	
220,000	224												■	■

Nominal thickness ■ 0.30 mm

・Click the charts for details.
・For details such as the catalog numbers, please refer to the capacitance range table on page 6 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

CGA2: 1005 [CC0402]

Capacitance		C0G
(pF)	Code	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	

Nominal thickness 0.50 mm

・Click the charts for details.

・For details such as the catalog numbers, please refer to the capacitance range table on page 6 and after.

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・Please note that the contents may change without any prior notice due to reasons such as upgrading.

Capacitance range chart

CGA2: 1005 [CC0402]

Capacitance		X5R					X6S
(pF)	Code	1H (50V)	1V (35V)	1E (25V)	1C (16V)	1A (10V)	0J (6.3V)
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	■	■	■			
15,000	153	■	■	■			
22,000	223	■	■	■			
33,000	333	■	■	■	■		
47,000	473	■	■	■	■		
68,000	683	■	■	■	■		
100,000	104	■	■	■	■	■	
150,000	154				■	■	
220,000	224				■	■	
1,000,000	105						■

Capacitance		X7R							X7S				X7T
(pF)	Code	1N (75V)	1H (50V)	1V (35V)	1E (25V)	1C (16V)	1A (10V)	0J (6.3V)	1V (35V)	1E (25V)	1C (16V)	1A (10V)	0G (4V)
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		■	■	■								
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												■

Nominal thickness ■ 0.50 mm

・Background gray: NRND (Not Recommended for New Designs)
・Click the charts for details.
・For details such as the catalog numbers, please refer to the capacitance range table on page 6 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.
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Capacitance range chart

CGA3: 1608 [CC0603]

Capacitance		C0G
(pF)	Code	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	

Nominal thickness 0.80 mm

・Click the charts for details.

・For details such as the catalog numbers, please refer to the capacitance range table on page 6 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 [CC0603]

Capacitance		X5R					
(pF)	Code	1H (50V)	1V (35V)	1E (25V)	1C (16V)	1A (10V)	0J (6.3V)
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						
680,000	684						
1,000,000	105						
1,500,000	155						
2,200,000	225						
3,300,000	335						
4,700,000	475						

Capacitance		X7R						X7S				X7T		
(pF)	Code	1N (75V)	1H (50V)	1V (35V)	1E (25V)	1C (16V)	0J (6.3V)	1E (25V)	1C (16V)	1A (10V)	0G (4V)	1A (10V)	0J (6.3V)	0G (4V)
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													
680,000	684													
1,000,000	105													
1,500,000	155													
2,200,000	225													
4,700,000	475													
10,000,000	106													

Nominal thickness 0.80 mm

・Background gray: NRND (Not Recommended for New Designs)
・Click the charts for details.
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Capacitance range chart

CGA4: 2012 [CC0805]

Capacitance		C0G	X5R				
(pF)	Code	1H (50V)	1H (50V)	1V (35V)	1E (25V)	1C (16V)	1A (10V)
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						
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						

Capacitance		X7R						X7S			X7T
(pF)	Code	1H (50V)	1V (35V)	1E (25V)	1C (16V)	1A (10V)	0J (6.3V)	1E (25V)	1C (16V)	1A (10V)	0J (6.3V)
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										

Nominal thickness 0.60 mm 0.85 mm 1.25 mm

・Background gray: NRND (Not Recommended for New Designs)
・Click the charts for details.
・For details such as the catalog numbers, please refer to the capacitance range table on page 6 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 — CGA5: 3216 [CC1206]

Capacitance		C0G	X5R				X7R					X7S	X7T
(pF)	Code	1H (50V)	1H (50V)	1V (35V)	1E (25V)	1C (16V)	1H (50V)	1V (35V)	1E (25V)	1C (16V)	0J (6.3V)	1A (10V)	0G (4V)
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												
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												
15,000,000	156												
22,000,000	226												
47,000,000	476												

Nominal thickness 0.60 mm 0.85 mm 1.15 mm 1.60 mm

・Background gray: NRND (Not Recommended for New Designs)
・Click the charts for details.
・For details such as the catalog numbers, please refer to the capacitance range table on page 6 and after.

Capacitance range chart — CGA6: 3225 [CC1210]

Capacitance		C0G	X7R				X7S			X7T	
(pF)	Code	1H (50V)	1N (75V)	1H (50V)	1E (25V)	1C (16V)	1H (50V)	1A (10V)	0J (6.3V)	0G (4V)	0E (2.5V)
22,000	223										
33,000	333										
47,000	473										
68,000	683										
100,000	104										
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										
15,000,000	156										
22,000,000	226										
33,000,000	336										
47,000,000	476										
100,000,000	107										

Nominal thickness 1.25 mm 1.60 mm 2.00 mm 2.30 mm 2.50 mm

・Background gray: NRND (Not Recommended for New Designs)
・Click the charts for details.
・For details such as the catalog numbers, please refer to the capacitance range table on page 6 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 [CC1812]

Capacitance		C0G	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				

Nominal thickness 1.60 mm 2.00 mm 2.30 mm 2.50 mm 2.80 mm 3.20 mm

・Background gray: NRND (Not Recommended for New Designs)
・Click the charts for details.
・For details such as the catalog numbers, please refer to the capacitance range table on page 6 and after.

Capacitance range chart — CGA9: 5750 [CC2220]

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				

Nominal thickness 2.00 mm 2.30 mm 2.50 mm

・Background gray: NRND (Not Recommended for New Designs)
・Click the charts for details.
・For details such as the catalog numbers, please refer to the capacitance range table on page 6 and after.

Capacitance range table — C0G (-55 to +125°C, 0±30 ppm/°C)

Capacitance	Size	Thickness (mm)	Cap Tolerance	Catalog numbers	
				Rated voltage: DC50V	Rated voltage: DC25V
1 pF	0603	0.30±0.03	±0.25pF	CGA1A2C0G1H010C030BA	CGA1A2C0G1E010C030BA
	1005	0.50±0.05	±0.25pF	CGA2B2C0G1H010C050BA	
	1608	0.80±0.10	±0.25pF	CGA3E2C0G1H010C080AA	
1.5 pF	0603	0.30±0.03	±0.25pF	CGA1A2C0G1H1R5C030BA	CGA1A2C0G1E1R5C030BA
	1005	0.50±0.05	±0.25pF	CGA2B2C0G1H1R5C050BA	
	1608	0.80±0.10	±0.25pF	CGA3E2C0G1H1R5C080AA	
2 pF	0603	0.30±0.03	±0.25pF	CGA1A2C0G1H020C030BA	CGA1A2C0G1E020C030BA
	1005	0.50±0.05	±0.25pF	CGA2B2C0G1H020C050BA	
	1608	0.80±0.10	±0.25pF	CGA3E2C0G1H020C080AA	
2.2 pF	0603	0.30±0.03	±0.25pF	CGA1A2C0G1H2R2C030BA	CGA1A2C0G1E2R2C030BA
	1005	0.50±0.05	±0.25pF	CGA2B2C0G1H2R2C050BA	
	1608	0.80±0.10	±0.25pF	CGA3E2C0G1H2R2C080AA	
3 pF	0603	0.30±0.03	±0.25pF	CGA1A2C0G1H030C030BA	CGA1A2C0G1E030C030BA
	1005	0.50±0.05	±0.25pF	CGA2B2C0G1H030C050BA	
	1608	0.80±0.10	±0.25pF	CGA3E2C0G1H030C080AA	
3.3 pF	0603	0.30±0.03	±0.25pF	CGA1A2C0G1H3R3C030BA	CGA1A2C0G1E3R3C030BA
	1005	0.50±0.05	±0.25pF	CGA2B2C0G1H3R3C050BA	
	1608	0.80±0.10	±0.25pF	CGA3E2C0G1H3R3C080AA	
4 pF	0603	0.30±0.03	±0.25pF	CGA1A2C0G1H040C030BA	CGA1A2C0G1E040C030BA
	1005	0.50±0.05	±0.25pF	CGA2B2C0G1H040C050BA	
	1608	0.80±0.10	±0.25pF	CGA3E2C0G1H040C080AA	
4.7 pF	0603	0.30±0.03	±0.25pF	CGA1A2C0G1H4R7C030BA	CGA1A2C0G1E4R7C030BA
	1005	0.50±0.05	±0.25pF	CGA2B2C0G1H4R7C050BA	
	1608	0.80±0.10	±0.25pF	CGA3E2C0G1H4R7C080AA	
5 pF	0603	0.30±0.03	±0.25pF	CGA1A2C0G1H050C030BA	CGA1A2C0G1E050C030BA
	1005	0.50±0.05	±0.25pF	CGA2B2C0G1H050C050BA	
	1608	0.80±0.10	±0.25pF	CGA3E2C0G1H050C080AA	
6 pF	0603	0.30±0.03	±0.50pF	CGA1A2C0G1H060D030BA	CGA1A2C0G1E060D030BA
	1005	0.50±0.05	±0.50pF	CGA2B2C0G1H060D050BA	
	1608	0.80±0.10	±0.50pF	CGA3E2C0G1H060D080AA	
6.8 pF	0603	0.30±0.03	±0.50pF	CGA1A2C0G1H6R8D030BA	CGA1A2C0G1E6R8D030BA
	1005	0.50±0.05	±0.50pF	CGA2B2C0G1H6R8D050BA	
	1608	0.80±0.10	±0.50pF	CGA3E2C0G1H6R8D080AA	
7 pF	0603	0.30±0.03	±0.50pF	CGA1A2C0G1H070D030BA	CGA1A2C0G1E070D030BA
	1005	0.50±0.05	±0.50pF	CGA2B2C0G1H070D050BA	
	1608	0.80±0.10	±0.50pF	CGA3E2C0G1H070D080AA	
8 pF	0603	0.30±0.03	±0.50pF	CGA1A2C0G1H080D030BA	CGA1A2C0G1E080D030BA
	1005	0.50±0.05	±0.50pF	CGA2B2C0G1H080D050BA	
	1608	0.80±0.10	±0.50pF	CGA3E2C0G1H080D080AA	
9 pF	0603	0.30±0.03	±0.50pF	CGA1A2C0G1H090D030BA	CGA1A2C0G1E090D030BA
	1005	0.50±0.05	±0.50pF	CGA2B2C0G1H090D050BA	
	1608	0.80±0.10	±0.50pF	CGA3E2C0G1H090D080AA	
10 pF	0603	0.30±0.03	±0.50pF	CGA1A2C0G1H100D030BA	CGA1A2C0G1E100D030BA
	1005	0.50±0.05	±0.50pF	CGA2B2C0G1H100D050BA	
	1608	0.80±0.10	±0.50pF	CGA3E2C0G1H100D080AA	
12 pF	0603	0.30±0.03	±5%	CGA1A2C0G1H120J030BA	CGA1A2C0G1E120J030BA
	1005	0.50±0.05	±5%	CGA2B2C0G1H120J050BA	
	1608	0.80±0.10	±5%	CGA3E2C0G1H120J080AA	
15 pF	0603	0.30±0.03	±5%	CGA1A2C0G1H150J030BA	CGA1A2C0G1E150J030BA
	1005	0.50±0.05	±5%	CGA2B2C0G1H150J050BA	
	1608	0.80±0.10	±5%	CGA3E2C0G1H150J080AA	

・Click the catalog numbers for details.

Capacitance range table — C0G (-55 to +125°C, 0±30 ppm/°C)

Capacitance	Size	Thickness (mm)	Cap Tolerance	Catalog numbers	
				Rated voltage: DC50V	Rated voltage: DC25V
18 pF	0603	0.30±0.03	±5%	CGA1A2C0G1H180J030BA	CGA1A2C0G1E180J030BA
	1005	0.50±0.05	±5%	CGA2B2C0G1H180J050BA	
	1608	0.80±0.10	±5%	CGA3E2C0G1H180J080AA	
22 pF	0603	0.30±0.03	±5%	CGA1A2C0G1H220J030BA	CGA1A2C0G1E220J030BA
	1005	0.50±0.05	±5%	CGA2B2C0G1H220J050BA	
	1608	0.80±0.10	±5%	CGA3E2C0G1H220J080AA	
27 pF	0603	0.30±0.03	±5%	CGA1A2C0G1H270J030BA	CGA1A2C0G1E270J030BA
	1005	0.50±0.05	±5%	CGA2B2C0G1H270J050BA	
	1608	0.80±0.10	±5%	CGA3E2C0G1H270J080AA	
33 pF	0603	0.30±0.03	±5%	CGA1A2C0G1H330J030BA	CGA1A2C0G1E330J030BA
	1005	0.50±0.05	±5%	CGA2B2C0G1H330J050BA	
	1608	0.80±0.10	±5%	CGA3E2C0G1H330J080AA	
39 pF	0603	0.30±0.03	±5%	CGA1A2C0G1H390J030BA	CGA1A2C0G1E390J030BA
	1005	0.50±0.05	±5%	CGA2B2C0G1H390J050BA	
	1608	0.80±0.10	±5%	CGA3E2C0G1H390J080AA	
47 pF	0603	0.30±0.03	±5%	CGA1A2C0G1H470J030BA	CGA1A2C0G1E470J030BA
	1005	0.50±0.05	±5%	CGA2B2C0G1H470J050BA	
	1608	0.80±0.10	±5%	CGA3E2C0G1H470J080AA	
56 pF	0603	0.30±0.03	±5%	CGA1A2C0G1H560J030BA	CGA1A2C0G1E560J030BA
	1005	0.50±0.05	±5%	CGA2B2C0G1H560J050BA	
	1608	0.80±0.10	±5%	CGA3E2C0G1H560J080AA	
68 pF	0603	0.30±0.03	±5%	CGA1A2C0G1H680J030BA	CGA1A2C0G1E680J030BA
	1005	0.50±0.05	±5%	CGA2B2C0G1H680J050BA	
	1608	0.80±0.10	±5%	CGA3E2C0G1H680J080AA	
82 pF	0603	0.30±0.03	±5%	CGA1A2C0G1H820J030BA	CGA1A2C0G1E820J030BA
	1005	0.50±0.05	±5%	CGA2B2C0G1H820J050BA	
	1608	0.80±0.10	±5%	CGA3E2C0G1H820J080AA	
100 pF	0603	0.30±0.03	±5%	CGA1A2C0G1H101J030BA	CGA1A2C0G1E101J030BA
	1005	0.50±0.05	±5%	CGA2B2C0G1H101J050BA	
	1608	0.80±0.10	±5%	CGA3E2C0G1H101J080AA	
120 pF	1005	0.50±0.05	±5%	CGA2B2C0G1H121J050BA	
	1608	0.80±0.10	±5%	CGA3E2C0G1H121J080AA	
150 pF	1005	0.50±0.05	±5%	CGA2B2C0G1H151J050BA	
	1608	0.80±0.10	±5%	CGA3E2C0G1H151J080AA	
180 pF	1005	0.50±0.05	±5%	CGA2B2C0G1H181J050BA	
	1608	0.80±0.10	±5%	CGA3E2C0G1H181J080AA	
220 pF	1005	0.50±0.05	±5%	CGA2B2C0G1H221J050BA	
	1608	0.80±0.10	±5%	CGA3E2C0G1H221J080AA	
270 pF	1005	0.50±0.05	±5%	CGA2B2C0G1H271J050BA	
	1608	0.80±0.10	±5%	CGA3E2C0G1H271J080AA	
330 pF	1005	0.50±0.05	±5%	CGA2B2C0G1H331J050BA	
	1608	0.80±0.10	±5%	CGA3E2C0G1H331J080AA	
390 pF	1005	0.50±0.05	±5%	CGA2B2C0G1H391J050BA	
	1608	0.80±0.10	±5%	CGA3E2C0G1H391J080AA	
470 pF	1005	0.50±0.05	±5%	CGA2B2C0G1H471J050BA	
	1608	0.80±0.10	±5%	CGA3E2C0G1H471J080AA	

・Click the catalog numbers for details.

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Capacitance range table — C0G (-55 to +125°C, 0±30 ppm/°C)

Capacitance	Size	Thickness (mm)	Cap Tolerance	Catalog numbers Rated voltage: DC50V
560 pF	1005	0.50±0.05	±5%	CGA2B2C0G1H561J050BA
	1608	0.80±0.10	±5%	CGA3E2C0G1H561J080AA
680 pF	1005	0.50±0.05	±5%	CGA2B2C0G1H681J050BA
	1608	0.80±0.10	±5%	CGA3E2C0G1H681J080AA
820 pF	1005	0.50±0.05	±5%	CGA2B2C0G1H821J050BA
	1608	0.80±0.10	±5%	CGA3E2C0G1H821J080AA
1 nF	1005	0.50±0.05	±5%	CGA2B2C0G1H102J050BA
	1608	0.80±0.10	±5%	CGA3E2C0G1H102J080AA
	2012	0.60±0.15	±5%	CGA4C2C0G1H102J060AA
1.2 nF	1608	0.80±0.10	±5%	CGA3E2C0G1H122J080AA
	2012	0.60±0.15	±5%	CGA4C2C0G1H122J060AA
1.5 nF	1608	0.80±0.10	±5%	CGA3E2C0G1H152J080AA
	2012	0.60±0.15	±5%	CGA4C2C0G1H152J060AA
1.8 nF	1608	0.80±0.10	±5%	CGA3E2C0G1H182J080AA
	2012	0.60±0.15	±5%	CGA4C2C0G1H182J060AA
2.2 nF	1608	0.80±0.10	±5%	CGA3E2C0G1H222J080AA
	2012	0.60±0.15	±5%	CGA4C2C0G1H222J060AA
2.7 nF	1608	0.80±0.10	±5%	CGA3E2C0G1H272J080AA
	2012	0.60±0.15	±5%	CGA4C2C0G1H272J060AA
3.3 nF	1608	0.80±0.10	±5%	CGA3E2C0G1H332J080AA
	2012	0.60±0.15	±5%	CGA4C2C0G1H332J060AA
3.9 nF	1608	0.80±0.10	±5%	CGA3E2C0G1H392J080AA
	2012	0.60±0.15	±5%	CGA4C2C0G1H392J060AA
4.7 nF	1608	0.80±0.10	±5%	CGA3E2C0G1H472J080AA
	2012	0.60±0.15	±5%	CGA4C2C0G1H472J060AA
	3216	0.60±0.15	±5%	CGA5C2C0G1H472J060AA
5.6 nF	1608	0.80±0.10	±5%	CGA3E2C0G1H562J080AA
	2012	0.60±0.15	±5%	CGA4C2C0G1H562J060AA
6.8 nF	1608	0.80±0.10	±5%	CGA3E2C0G1H682J080AA
	2012	0.60±0.15	±5%	CGA4C2C0G1H682J060AA
	3216	0.60±0.15	±5%	CGA5C2C0G1H682J060AA
8.2 nF	1608	0.80±0.10	±5%	CGA3E2C0G1H822J080AA
	2012	0.60±0.15	±5%	CGA4C2C0G1H822J060AA
10 nF	1608	0.80±0.10	±5%	CGA3E2C0G1H103J080AA
	2012	0.60±0.15	±5%	CGA4C2C0G1H103J060AA
	3216	0.60±0.15	±5%	CGA5C2C0G1H103J060AA
15 nF	2012	0.85±0.15	±5%	CGA4F2C0G1H153J085AA
	3216	0.60±0.15	±5%	CGA5C2C0G1H153J060AA
22 nF	2012	1.25±0.20	±5%	CGA4J2C0G1H223J125AA
	3216	0.60±0.15	±5%	CGA5C2C0G1H223J060AA
	3225	1.25±0.20	±5%	CGA6J2C0G1H223J125AA
33 nF	2012	1.25±0.20	±5%	CGA4J2C0G1H333J125AA
	3216	0.85±0.15	±5%	CGA5F2C0G1H333J085AA
	3225	1.60±0.20	±5%	CGA6L2C0G1H333J160AA
47 nF	3216	1.15±0.15	±5%	CGA5H2C0G1H473J115AA
	3225	2.00±0.20	±5%	CGA6M2C0G1H473J200AA
	4532	1.60±0.20	±5%	CGA8L2C0G1H473J160KA

・Gray: NRND (Not Recommended for New Designs)

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Capacitance range table — C0G (-55 to +125°C, 0±30 ppm/°C)

Capacitance	Size	Thickness (mm)	Cap Tolerance	Catalog numbers Rated voltage: DC50V
68 nF	3216	1.60±0.20	±5%	CGA5L2C0G1H683J160AA
	3225	2.00±0.20	±5%	CGA6M2C0G1H683J200AA
	4532	1.60±0.20	±5%	CGA8L2C0G1H683J160KA
100 nF	3216	1.60±0.20	±5%	CGA5L2C0G1H104J160AA
	3225	2.50±0.30	±5%	CGA6P2C0G1H104J250AA
	4532	2.00±0.20	±5%	CGA8M2C0G1H104J200KA
150 nF	4532	2.50±0.30	±5%	CGA8P2C0G1H154J250KA
220 nF	4532	3.20±0.30	±5%	CGA8R2C0G1H224J320KA

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Capacitance range table — X5R (-55 to +85°C, ±15%)

Capacitance	Size	Thickness (mm)	Cap Tolerance	Catalog numbers		
				Rated voltage: DC50V	Rated voltage: DC35V	Rated voltage: DC25V
220 pF	1005	0.50±0.05	±10%	CGA2B2X5R1H221K050BA		
			±20%	CGA2B2X5R1H221M050BA		
330 pF	1005	0.50±0.05	±10%	CGA2B2X5R1H331K050BA		
			±20%	CGA2B2X5R1H331M050BA		
470 pF	1005	0.50±0.05	±10%	CGA2B2X5R1H471K050BA		
			±20%	CGA2B2X5R1H471M050BA		
680 pF	1005	0.50±0.05	±10%	CGA2B2X5R1H681K050BA		
			±20%	CGA2B2X5R1H681M050BA		
1 nF	1005	0.50±0.05	±10%	CGA2B2X5R1H102K050BA		
			±20%	CGA2B2X5R1H102M050BA		
	1608	0.80±0.10	±10%	CGA3E2X5R1H102K080AA		
			±20%	CGA3E2X5R1H102M080AA		
1.5 nF	1005	0.50±0.05	±10%	CGA2B2X5R1H152K050BA		
			±20%	CGA2B2X5R1H152M050BA		
	1608	0.80±0.10	±10%	CGA3E2X5R1H152K080AA		
			±20%	CGA3E2X5R1H152M080AA		
2.2 nF	1005	0.50±0.05	±10%	CGA2B2X5R1H222K050BA		
			±20%	CGA2B2X5R1H222M050BA		
	1608	0.80±0.10	±10%	CGA3E2X5R1H222K080AA		
			±20%	CGA3E2X5R1H222M080AA		
3.3 nF	1005	0.50±0.05	±10%	CGA2B2X5R1H332K050BA		
			±20%	CGA2B2X5R1H332M050BA		
	1608	0.80±0.10	±10%	CGA3E2X5R1H332K080AA		
			±20%	CGA3E2X5R1H332M080AA		
4.7 nF	1005	0.50±0.05	±10%	CGA2B2X5R1H472K050BA		
			±20%	CGA2B2X5R1H472M050BA		
	1608	0.80±0.10	±10%	CGA3E2X5R1H472K080AA		
			±20%	CGA3E2X5R1H472M080AA		
6.8 nF	1005	0.50±0.05	±10%	CGA2B2X5R1H682K050BA		
			±20%	CGA2B2X5R1H682M050BA		
	1608	0.80±0.10	±10%	CGA3E2X5R1H682K080AA		
			±20%	CGA3E2X5R1H682M080AA		
10 nF	1005	0.50±0.05	±10%	CGA2B3X5R1H103K050BB	CGA2B3X5R1V103K050BB	CGA2B2X5R1E103K050BA
			±20%	CGA2B3X5R1H103M050BB	CGA2B3X5R1V103M050BB	CGA2B2X5R1E103M050BA
	1608	0.80±0.10	±10%	CGA3E2X5R1H103K080AA		
			±20%	CGA3E2X5R1H103M080AA		
15 nF	1005	0.50±0.05	±10%	CGA2B3X5R1H153K050BB	CGA2B3X5R1V153K050BB	CGA2B2X5R1E153K050BA
			±20%	CGA2B3X5R1H153M050BB	CGA2B3X5R1V153M050BB	CGA2B2X5R1E153M050BA
	1608	0.80±0.10	±10%	CGA3E2X5R1H153K080AA		
			±20%	CGA3E2X5R1H153M080AA		
22 nF	1005	0.50±0.05	±10%	CGA2B3X5R1H223K050BB	CGA2B3X5R1V223K050BB	CGA2B2X5R1E223K050BA
			±20%	CGA2B3X5R1H223M050BB	CGA2B3X5R1V223M050BB	CGA2B2X5R1E223M050BA
	1608	0.80±0.10	±10%	CGA3E2X5R1H223K080AA		
			±20%	CGA3E2X5R1H223M080AA		
33 nF	1005	0.50±0.05	±10%	CGA2B3X5R1H333K050BB	CGA2B3X5R1V333K050BB	CGA2B2X5R1E333K050BA
			±20%	CGA2B3X5R1H333M050BB	CGA2B3X5R1V333M050BB	CGA2B2X5R1E333M050BA
	1608	0.80±0.10	±10%	CGA3E2X5R1H333K080AA		
			±20%	CGA3E2X5R1H333M080AA		

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Capacitance range table — X5R (-55 to +85°C, ±15%)

Capaci-tance	Size	Thickness (mm)	Cap Tolerance	Catalog numbers		
				Rated voltage: DC50V	Rated voltage: DC35V	Rated voltage: DC25V
47 nF	1005	0.50±0.05	±10%	CGA2B3X5R1H473K050BB	CGA2B3X5R1V473K050BB	CGA2B2X5R1E473K050BA
			±20%	CGA2B3X5R1H473M050BB	CGA2B3X5R1V473M050BB	CGA2B2X5R1E473M050BA
	1608	0.80±0.10	±10%	CGA3E2X5R1H473K080AA		
			±20%	CGA3E2X5R1H473M080AA		
68 nF	1005	0.50±0.05	±10%	CGA2B3X5R1H683K050BB	CGA2B3X5R1V683K050BB	CGA2B3X5R1E683K050BB
			±20%	CGA2B3X5R1H683M050BB	CGA2B3X5R1V683M050BB	CGA2B3X5R1E683M050BB
	1608	0.80±0.10	±10%	CGA3E2X5R1H683K080AA		
			±20%	CGA3E2X5R1H683M080AA		
100 nF	1005	0.50±0.05	±10%	CGA2B3X5R1H104K050BB	CGA2B3X5R1V104K050BB	CGA2B3X5R1E104K050BB
			±20%	CGA2B3X5R1H104M050BB	CGA2B3X5R1V104M050BB	CGA2B3X5R1E104M050BB
	1608	0.80±0.10	±10%	CGA3E2X5R1H104K080AA		CGA3E2X5R1E104K080AA
			±20%	CGA3E2X5R1H104M080AA		CGA3E2X5R1E104M080AA
150 nF	1608	0.80±0.10	±10%	CGA3E3X5R1H154K080AB	CGA3E3X5R1V154K080AB	CGA3E2X5R1E154K080AA
			±20%	CGA3E3X5R1H154M080AB	CGA3E3X5R1V154M080AB	CGA3E2X5R1E154M080AA
220 nF	1608	0.80±0.10	±10%	CGA3E3X5R1H224K080AB	CGA3E3X5R1V224K080AB	CGA3E2X5R1E224K080AA
			±20%	CGA3E3X5R1H224M080AB	CGA3E3X5R1V224M080AB	CGA3E2X5R1E224M080AA
	2012	1.25±0.20	±10%	CGA4J2X5R1H224K125AA		
			±20%	CGA4J2X5R1H224M125AA		
330 nF	1608	0.80±0.10	±10%	CGA3E3X5R1H334K080AB	CGA3E3X5R1V334K080AB	CGA3E3X5R1E334K080AB
			±20%	CGA3E3X5R1H334M080AB	CGA3E3X5R1V334M080AB	CGA3E3X5R1E334M080AB
	2012	1.25±0.20	±10%	CGA4J2X5R1H334K125AA		
			±20%	CGA4J2X5R1H334M125AA		
470 nF	1608	0.80±0.10	±10%	CGA3E3X5R1H474K080AB	CGA3E3X5R1V474K080AB	CGA3E3X5R1E474K080AB
			±20%	CGA3E3X5R1H474M080AB	CGA3E3X5R1V474M080AB	CGA3E3X5R1E474M080AB
	2012	1.25±0.20	±10%	CGA4J3X5R1H474K125AB	CGA4J3X5R1V474K125AB	CGA4J2X5R1E474K125AA
			±20%	CGA4J3X5R1H474M125AB	CGA4J3X5R1V474M125AB	CGA4J2X5R1E474M125AA
	3216	1.60+0.30,-0.10	±10%	CGA5L2X5R1H474K160AA		
			±20%	CGA5L2X5R1H474M160AA		
680 nF	1608	0.80±0.10	±10%	CGA3E3X5R1H684K080AB	CGA3E3X5R1V684K080AB	CGA3E3X5R1E684K080AB
			±20%	CGA3E3X5R1H684M080AB	CGA3E3X5R1V684M080AB	CGA3E3X5R1E684M080AB
	2012	1.25±0.20	±10%	CGA4J3X5R1H684K125AB	CGA4J3X5R1V684K125AB	CGA4J2X5R1E684K125AA
			±20%	CGA4J3X5R1H684M125AB	CGA4J3X5R1V684M125AB	CGA4J2X5R1E684M125AA
	3216	1.60+0.30,-0.10	±10%	CGA5L2X5R1H684K160AA		
			±20%	CGA5L2X5R1H684M160AA		
1 µF	1608	0.80±0.10	±10%	CGA3E3X5R1H105K080AB	CGA3E3X5R1V105K080AB	CGA3E3X5R1E105K080AB
			±20%	CGA3E3X5R1H105M080AB	CGA3E3X5R1V105M080AB	CGA3E3X5R1E105M080AB
	2012	1.25±0.20	±10%	CGA4J3X5R1H105K125AB	CGA4J3X5R1V105K125AB	CGA4J2X5R1E105K125AA
			±20%	CGA4J3X5R1H105M125AB	CGA4J3X5R1V105M125AB	CGA4J2X5R1E105M125AA
	3216	1.60+0.30,-0.10	±10%	CGA5L2X5R1H105K160AA		
			±20%	CGA5L2X5R1H105M160AA		
1.5 µF	2012	1.25±0.20	±10%	CGA4J3X5R1H155K125AB	CGA4J3X5R1V155K125AB	CGA4J3X5R1E155K125AB
			±20%	CGA4J3X5R1H155M125AB	CGA4J3X5R1V155M125AB	CGA4J3X5R1E155M125AB
	3216	1.60+0.30,-0.10	±10%	CGA5L3X5R1H155K160AB	CGA5L3X5R1V155K160AB	CGA5L2X5R1E155K160AA
			±20%	CGA5L3X5R1H155M160AB	CGA5L3X5R1V155M160AB	CGA5L2X5R1E155M160AA
2.2 µF	2012	1.25±0.20	±10%	CGA4J3X5R1H225K125AB	CGA4J3X5R1V225K125AB	CGA4J3X5R1E225K125AB
			±20%	CGA4J3X5R1H225M125AB	CGA4J3X5R1V225M125AB	CGA4J3X5R1E225M125AB
	3216	1.60+0.30,-0.10	±10%	CGA5L3X5R1H225K160AB	CGA5L3X5R1V225K160AB	CGA5L2X5R1E225K160AA
			±20%	CGA5L3X5R1H225M160AB	CGA5L3X5R1V225M160AB	CGA5L2X5R1E225M160AA

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Capacitance range table — X5R (-55 to +85°C, ±15%)

Capaci-tance	Size	Thickness (mm)	Cap Tolerance	Catalog numbers		
				Rated voltage: DC50V	Rated voltage: DC35V	Rated voltage: DC25V
3.3 µF	2012	1.25±0.20	±10%	CGA4J3X5R1H335K125AB	CGA4J3X5R1V335K125AB	CGA4J3X5R1E335K125AB
			±20%	CGA4J3X5R1H335M125AB	CGA4J3X5R1V335M125AB	CGA4J3X5R1E335M125AB
	3216	1.60+0.30,-0.10	±10%	CGA5L3X5R1H335K160AB	CGA5L3X5R1V335K160AB	CGA5L2X5R1E335K160AA
			±20%	CGA5L3X5R1H335M160AB	CGA5L3X5R1V335M160AB	CGA5L2X5R1E335M160AA
4.7 µF	2012	1.25±0.20	±10%	CGA4J3X5R1H475K125AB	CGA4J3X5R1V475K125AB	CGA4J3X5R1E475K125AB
			±20%	CGA4J3X5R1H475M125AB	CGA4J3X5R1V475M125AB	CGA4J3X5R1E475M125AB
	3216	1.60+0.30,-0.10	±10%	CGA5L3X5R1H475K160AB	CGA5L3X5R1V475K160AB	CGA5L2X5R1E475K160AA
			±20%	CGA5L3X5R1H475M160AB	CGA5L3X5R1V475M160AB	CGA5L2X5R1E475M160AA
6.8 µF	3216	1.60+0.30,-0.10	±10%	CGA5L3X5R1H685K160AB	CGA5L3X5R1V685K160AB	CGA5L3X5R1E685K160AB
			±20%	CGA5L3X5R1H685M160AB	CGA5L3X5R1V685M160AB	CGA5L3X5R1E685M160AB
10 µF	3216	1.60+0.30,-0.10	±10%	CGA5L3X5R1H106K160AB	CGA5L3X5R1V106K160AB	CGA5L3X5R1E106K160AB
			±20%	CGA5L3X5R1H106M160AB	CGA5L3X5R1V106M160AB	CGA5L3X5R1E106M160AB

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Capacitance range table — X5R (-55 to +85°C, ±15%)

Capacitance	Size	Thickness (mm)	Cap Tolerance	Catalog numbers		
				Rated voltage: DC16V	Rated voltage: DC10V	Rated voltage: DC6.3V
33 nF	1005	0.50±0.05	±10%	CGA2B2X5R1C333K050BA		
			±20%	CGA2B2X5R1C333M050BA		
47 nF	1005	0.50±0.05	±10%	CGA2B2X5R1C473K050BA		
			±20%	CGA2B2X5R1C473M050BA		
68 nF	1005	0.50±0.05	±10%	CGA2B2X5R1C683K050BA		
			±20%	CGA2B2X5R1C683M050BA		
100 nF	1005	0.50±0.05	±10%	CGA2B2X5R1C104K050BA	CGA2B2X5R1A104K050BA	
			±20%	CGA2B2X5R1C104M050BA	CGA2B2X5R1A104M050BA	
150 nF	1005	0.50±0.05	±10%	CGA2B1X5R1C154K050BC	CGA2B3X5R1A154K050BB	
			±20%	CGA2B1X5R1C154M050BC	CGA2B3X5R1A154M050BB	
220 nF	1005	0.50±0.05	±10%	CGA2B1X5R1C224K050BC	CGA2B3X5R1A224K050BB	
			±20%	CGA2B1X5R1C224M050BC	CGA2B3X5R1A224M050BB	
	1608	0.80±0.10	±10%	CGA3E2X5R1C224K080AA		
			±20%	CGA3E2X5R1C224M080AA		
330 nF	1608	0.80±0.10	±10%	CGA3E2X5R1C334K080AA	CGA3E2X5R1A334K080AA	
			±20%	CGA3E2X5R1C334M080AA	CGA3E2X5R1A334M080AA	
470 nF	1608	0.80±0.10	±10%	CGA3E2X5R1C474K080AA	CGA3E2X5R1A474K080AA	
			±20%	CGA3E2X5R1C474M080AA	CGA3E2X5R1A474M080AA	
680 nF	1608	0.80±0.10	±10%	CGA3E2X5R1C684K080AA	CGA3E2X5R1A684K080AA	
			±20%	CGA3E2X5R1C684M080AA	CGA3E2X5R1A684M080AA	
	2012	1.25±0.20	±10%	CGA4J2X5R1C684K125AA		
			±20%	CGA4J2X5R1C684M125AA		
1 µF	1608	0.80±0.10	±10%	CGA3E1X5R1C105K080AC	CGA3E2X5R1A105K080AA	
			±20%	CGA3E1X5R1C105M080AC	CGA3E2X5R1A105M080AA	
	2012	1.25±0.20	±10%	CGA4J2X5R1C105K125AA		
			±20%	CGA4J2X5R1C105M125AA		
1.5 µF	1608	0.80±0.10	±10%	CGA3E1X5R1C155K080AC	CGA3E3X5R1A155K080AB	
			±20%	CGA3E1X5R1C155M080AC	CGA3E3X5R1A155M080AB	
	2012	1.25±0.20	±10%	CGA4J2X5R1C155K125AA	CGA4J2X5R1A155K125AA	
			±20%	CGA4J2X5R1C155M125AA	CGA4J2X5R1A155M125AA	
2.2 µF	1608	0.80±0.10	±10%	CGA3E1X5R1C225K080AC	CGA3E3X5R1A225K080AB	
			±20%	CGA3E1X5R1C225M080AC	CGA3E3X5R1A225M080AB	
	2012	1.25±0.20	±10%	CGA4J2X5R1C225K125AA	CGA4J2X5R1A225K125AA	
			±20%	CGA4J2X5R1C225M125AA	CGA4J2X5R1A225M125AA	
3.3 µF	1608	0.80±0.10	±10%		CGA3E1X5R1A335K080AC	CGA3E3X5R0J335K080AB
			±20%		CGA3E1X5R1A335M080AC	CGA3E3X5R0J335M080AB
	2012	1.25±0.20	±10%	CGA4J3X5R1C335K125AB	CGA4J2X5R1A335K125AA	
			±20%	CGA4J3X5R1C335M125AB	CGA4J2X5R1A335M125AA	
4.7 µF	1608	0.80±0.10	±10%			CGA3E1X5R0J475K080AC
			±20%			CGA3E1X5R0J475M080AC
	2012	1.25±0.20	±10%	CGA4J3X5R1C475K125AB	CGA4J2X5R1A475K125AA	
			±20%	CGA4J3X5R1C475M125AB	CGA4J2X5R1A475M125AA	
	3216	1.60+0.30,-0.10	±10%	CGA5L2X5R1C475K160AA		
			±20%	CGA5L2X5R1C475M160AA		
6.8 µF	2012	1.25±0.20	±10%	CGA4J1X5R1C685K125AC	CGA4J3X5R1A685K125AB	
			±20%	CGA4J1X5R1C685M125AC	CGA4J3X5R1A685M125AB	
	3216	1.60+0.30,-0.10	±10%	CGA5L2X5R1C685K160AA		
			±20%	CGA5L2X5R1C685M160AA		

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Capacitance range table — X5R (-55 to +85°C, ±15%)

Capacitance	Size	Thickness (mm)	Cap Tolerance	Catalog numbers		
				Rated voltage: DC16V	Rated voltage: DC10V	Rated voltage: DC6.3V
6.8 µF	2012	1.25±0.20	±10%	CGA4J1X5R1C685K125AC	CGA4J3X5R1A685K125AB	
			±20%	CGA4J1X5R1C685M125AC	CGA4J3X5R1A685M125AB	
	3216	1.60+0.30,-0.10	±10%	CGA5L2X5R1C685K160AA		
			±20%	CGA5L2X5R1C685M160AA		
10 µF	2012	1.25±0.20	±10%	CGA4J1X5R1C106K125AC	CGA4J3X5R1A106K125AB	
			±20%	CGA4J1X5R1C106M125AC	CGA4J3X5R1A106M125AB	
	3216	1.60+0.30,-0.10	±10%	CGA5L1X5R1C106K160AC		
			±20%	CGA5L1X5R1C106M160AC		
15 µF	3216	1.60+0.30,-0.10	±20%	CGA5L1X5R1C156M160AC		
22 µF	3216	1.60+0.30,-0.10	±20%	CGA5L1X5R1C226M160AC		

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Capacitance range table — X6S (-55 to +105°C, ±22%)

Capacitance	Size	Thickness (mm)	Cap Tolerance	Catalog numbers
				Rated voltage: DC6.3V
1 µF	1005	0.50+0.10,-0.05	±20%	CGA2B1X6S0J105M050BC

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Capacitance range table — X7R (-55 to +125°C, ±15%)

Capacitance	Size	Thickness (mm)	Cap Tolerance	Rated voltage: DC50V	Rated voltage: DC25V
100 pF	0603	0.30±0.03	±10%	CGA1A2X7R1H101K030BA	CGA1A2X7R1E101K030BA
			±20%	CGA1A2X7R1H101M030BA	CGA1A2X7R1E101M030BA
150 pF	0603	0.30±0.03	±10%	CGA1A2X7R1H151K030BA	CGA1A2X7R1E151K030BA
			±20%	CGA1A2X7R1H151M030BA	CGA1A2X7R1E151M030BA
220 pF	0603	0.30±0.03	±10%	CGA1A2X7R1H221K030BA	CGA1A2X7R1E221K030BA
			±20%	CGA1A2X7R1H221M030BA	CGA1A2X7R1E221M030BA
	1005	0.50±0.05	±10%	CGA2B2X7R1H221K050BA	
			±20%	CGA2B2X7R1H221M050BA	
330 pF	0603	0.30±0.03	±10%	CGA1A2X7R1H331K030BA	CGA1A2X7R1E331K030BA
			±20%	CGA1A2X7R1H331M030BA	CGA1A2X7R1E331M030BA
	1005	0.50±0.05	±10%	CGA2B2X7R1H331K050BA	
			±20%	CGA2B2X7R1H331M050BA	
470 pF	0603	0.30±0.03	±10%	CGA1A2X7R1H471K030BA	CGA1A2X7R1E471K030BA
			±20%	CGA1A2X7R1H471M030BA	CGA1A2X7R1E471M030BA
	1005	0.50±0.05	±10%	CGA2B2X7R1H471K050BA	
			±20%	CGA2B2X7R1H471M050BA	
680 pF	0603	0.30±0.03	±10%		CGA1A2X7R1E681K030BA
			±20%		CGA1A2X7R1E681M030BA
	1005	0.50±0.05	±10%	CGA2B2X7R1H681K050BA	
			±20%	CGA2B2X7R1H681M050BA	
1 nF	0603	0.30±0.03	±10%		CGA1A2X7R1E102K030BA
			±20%		CGA1A2X7R1E102M030BA
	1005	0.50±0.05	±10%	CGA2B2X7R1H102K050BA	
			±20%	CGA2B2X7R1H102M050BA	
	1608	0.80±0.10	±10%	CGA3E2X7R1H102K080AA	
			±20%	CGA3E2X7R1H102M080AA	
1.5 nF	0603	0.30±0.03	±10%		CGA1A2X7R1E152K030BA
			±20%		CGA1A2X7R1E152M030BA
	1005	0.50±0.05	±10%	CGA2B2X7R1H152K050BA	
			±20%	CGA2B2X7R1H152M050BA	
	1608	0.80±0.10	±10%	CGA3E2X7R1H152K080AA	
			±20%	CGA3E2X7R1H152M080AA	
2.2 nF	0603	0.30±0.03	±10%		CGA1A2X7R1E222K030BA
			±20%		CGA1A2X7R1E222M030BA
	1005	0.50±0.05	±10%	CGA2B2X7R1H222K050BA	
			±20%	CGA2B2X7R1H222M050BA	
	1608	0.80±0.10	±10%	CGA3E2X7R1H222K080AA	
			±20%	CGA3E2X7R1H222M080AA	
3.3 nF	0603	0.30±0.03	±10%		CGA1A2X7R1E332K030BA
			±20%		CGA1A2X7R1E332M030BA
	1005	0.50±0.05	±10%	CGA2B2X7R1H332K050BA	
			±20%	CGA2B2X7R1H332M050BA	
	1608	0.80±0.10	±10%	CGA3E2X7R1H332K080AA	
			±20%	CGA3E2X7R1H332M080AA	
4.7 nF	1005	0.50±0.05	±10%	CGA2B2X7R1H472K050BA	
			±20%	CGA2B2X7R1H472M050BA	
	1608	0.80±0.10	±10%	CGA3E2X7R1H472K080AA	
			±20%	CGA3E2X7R1H472M080AA	

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Capacitance range table

X7R (-55 to +125°C, ±15%)

Capaci-tance	Size	Thickness (mm)	Cap Tolerance	Rated voltage: DC75V	Rated voltage: DC50V	Rated voltage: DC35V	Rated voltage: DC25V
6.8 nF	1005	0.50±0.05	±10%		CGA2B2X7R1H682K050BA		
			±20%		CGA2B2X7R1H682M050BA		
	1608	0.80±0.10	±10%		CGA3E2X7R1H682K080AA		
			±20%		CGA3E2X7R1H682M080AA		
10 nF	1005	0.50±0.05	±10%		CGA2B3X7R1H103K050BB	CGA2B3X7R1V103K050BB	CGA2B2X7R1E103K050BA
			±20%		CGA2B3X7R1H103M050BB	CGA2B3X7R1V103M050BB	CGA2B2X7R1E103M050BA
	1608	0.80±0.10	±10%		CGA3E2X7R1H103K080AA		
			±20%		CGA3E2X7R1H103M080AA		
15 nF	1005	0.50±0.05	±10%		CGA2B3X7R1H153K050BB	CGA2B3X7R1V153K050BB	CGA2B2X7R1E153K050BA
			±20%		CGA2B3X7R1H153M050BB	CGA2B3X7R1V153M050BB	CGA2B2X7R1E153M050BA
	1608	0.80±0.10	±10%		CGA3E2X7R1H153K080AA		
			±20%		CGA3E2X7R1H153M080AA		
22 nF	0603	0.30±0.05	±10%		CGA1A3X7R1H223K030BB		
	1005	0.50±0.05	±10%		CGA2B3X7R1H223K050BB	CGA2B3X7R1V223K050BB	CGA2B2X7R1E223K050BA
			±20%		CGA2B3X7R1H223M050BB	CGA2B3X7R1V223M050BB	CGA2B2X7R1E223M050BA
	1608	0.80±0.10	±10%		CGA3E2X7R1H223K080AA		
			±20%		CGA3E2X7R1H223M080AA		
33 nF	1005	0.50±0.05	±10%		CGA2B3X7R1H333K050BB	CGA2B3X7R1V333K050BB	CGA2B1X7R1E333K050BC
			±20%		CGA2B3X7R1H333M050BB	CGA2B3X7R1V333M050BB	CGA2B1X7R1E333M050BC
	1608	0.80±0.10	±10%		CGA3E2X7R1H333K080AA		
			±20%		CGA3E2X7R1H333M080AA		
47 nF	0603	0.30+0.09,-0.03	±10%			CGA1A1X7R1V473K030BC	CGA1A3X7R1E473K030BB
	1005	0.50±0.05	±10%		CGA2B3X7R1H473K050BB	CGA2B3X7R1V473K050BB	CGA2B1X7R1E473K050BC
			±20%		CGA2B3X7R1H473M050BB	CGA2B3X7R1V473M050BB	CGA2B1X7R1E473M050BC
	1608	0.80±0.10	±10%		CGA3E2X7R1H473K080AA		
			±20%		CGA3E2X7R1H473M080AA		
68 nF	1005	0.50±0.05	±10%		CGA2B3X7R1H683K050BB	CGA2B3X7R1V683K050BB	CGA2B3X7R1E683K050BB
			±20%		CGA2B3X7R1H683M050BB	CGA2B3X7R1V683M050BB	CGA2B3X7R1E683M050BB
	1608	0.80±0.10	±10%		CGA3E2X7R1H683K080AA		
			±20%		CGA3E2X7R1H683M080AA		
100 nF	1005	0.50±0.05	±10%		CGA2B3X7R1H104K050BB	CGA2B3X7R1V104K050BB	CGA2B3X7R1E104K050BB
			±20%		CGA2B3X7R1H104M050BB	CGA2B3X7R1V104M050BB	CGA2B3X7R1E104M050BB
	1608	0.80±0.10	±10%		CGA3E2X7R1H104K080AA		CGA3E2X7R1E104K080AA
			±20%		CGA3E2X7R1H104M080AA		CGA3E2X7R1E104M080AA
150 nF	1005	0.50±0.05	±10%			CGA2B1X7R1V154K050BC	CGA2B3X7R1E154K050BB
			±20%			CGA2B1X7R1V154M050BC	CGA2B3X7R1E154M050BB
	1608	0.80±0.10	±10%		CGA3E3X7R1H154K080AB	CGA3E3X7R1V154K080AB	CGA3E2X7R1E154K080AA
			±20%		CGA3E3X7R1H154M080AB	CGA3E3X7R1V154M080AB	CGA3E2X7R1E154M080AA
	2012	1.25±0.20	±10%		CGA4J2X7R1H154K125AA		
			±20%		CGA4J2X7R1H154M125AA		
220 nF	1005	0.50+0.15,-0.05	±10%	CGA2B1X7R1N224K050BC	CGA2B3X7R1H224K050BB		
		0.50±0.05	±10%			CGA2B1X7R1V224K050BC	CGA2B3X7R1E224K050BB
			±20%			CGA2B1X7R1V224M050BC	CGA2B3X7R1E224M050BB
	1608	0.80±0.10	±10%		CGA3E3X7R1H224K080AB	CGA3E3X7R1V224K080AB	CGA3E1X7R1E224K080AC
			±20%		CGA3E3X7R1H224M080AB	CGA3E3X7R1V224M080AB	CGA3E1X7R1E224M080AC
	2012	1.25±0.20	±10%		CGA4J2X7R1H224K125AA		CGA4J2X7R1E224K125AA
			±20%		CGA4J2X7R1H224M125AA		
330 nF	1608	0.80±0.10	±10%		CGA3E3X7R1H334K080AB	CGA3E1X7R1V334K080AC	CGA3E3X7R1E334K080AB
			±20%		CGA3E3X7R1H334M080AB	CGA3E1X7R1V334M080AC	CGA3E3X7R1E334M080AB
	2012	1.25±0.20	±10%		CGA4J2X7R1H334K125AA		
			±20%		CGA4J2X7R1H334M125AA		
470 nF	1608	0.80±0.10	±10%		CGA3E3X7R1H474K080AB	CGA3E1X7R1V474K080AC	CGA3E3X7R1E474K080AB
			±20%		CGA3E3X7R1H474M080AB	CGA3E1X7R1V474M080AC	CGA3E3X7R1E474M080AB
	2012	1.25±0.20	±10%		CGA4J3X7R1H474K125AB	CGA4J3X7R1V474K125AB	CGA4J2X7R1E474K125AA
			±20%		CGA4J3X7R1H474M125AB	CGA4J3X7R1V474M125AB	CGA4J2X7R1E474M125AA
	3216	1.60+0.30,-0.10	±10%		CGA5L2X7R1H474K160AA		
			±20%		CGA5L2X7R1H474M160AA		
680 nF	1608	0.80±0.10	±10%			CGA3E1X7R1V684K080AC	CGA3E1X7R1E684K080AC
			±20%			CGA3E1X7R1V684M080AC	CGA3E1X7R1E684M080AC
	2012	1.25±0.20	±10%		CGA4J3X7R1H684K125AB	CGA4J3X7R1V684K125AB	CGA4J3X7R1E684K125AB
			±20%		CGA4J3X7R1H684M125AB	CGA4J3X7R1V684M125AB	CGA4J3X7R1E684M125AB
	3216	1.60+0.30,-0.10	±10%		CGA5L2X7R1H684K160AA		
			±20%		CGA5L2X7R1H684M160AA		

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Capacitance range table

X7R (-55 to +125°C, ±15%)

Capacitance	Size	Thickness (mm)	Cap Tolerance	Rated voltage: DC75V	Rated voltage: DC50V	Rated voltage: DC35V	Rated voltage: DC25V
1 µF	1608	0.80+0.20,-0.10	±10%	CGA3E1X7R1N105K080AC	CGA3E3X7R1H105K080AB		
		0.80±0.10	±10%			CGA3E1X7R1V105K080AC	CGA3E1X7R1E105K080AC
			±20%			CGA3E1X7R1V105M080AC	CGA3E1X7R1E105M080AC
	2012	1.25±0.20	±10%		CGA4J3X7R1H105K125AB	CGA4J3X7R1V105K125AB	CGA4J3X7R1E105K125AB
			±20%		CGA4J3X7R1H105M125AB	CGA4J3X7R1V105M125AB	CGA4J3X7R1E105M125AB
	3216	1.60+0.30,-0.10	±10%		CGA5L3X7R1H105K160AB		CGA5L2X7R1E105K160AA
			±20%		CGA5L3X7R1H105M160AB		CGA5L2X7R1E105M160AA
	3225	1.60±0.20	±10%		CGA6L2X7R1H105K160AA		
			±20%		CGA6L2X7R1H105M160AA		
1.5 µF	2012	1.25±0.20	±10%		CGA4J3X7R1H155K125AB	CGA4J1X7R1V155K125AC	CGA4J3X7R1E155K125AB
			±20%		CGA4J3X7R1H155M125AB	CGA4J1X7R1V155M125AC	CGA4J3X7R1E155M125AB
	3216	1.60+0.30,-0.10	±10%		CGA5L3X7R1H155K160AB	CGA5L3X7R1V155K160AB	CGA5L2X7R1E155K160AA
			±20%		CGA5L3X7R1H155M160AB	CGA5L3X7R1V155M160AB	CGA5L2X7R1E155M160AA
	3225	2.00±0.20	±10%		CGA6M2X7R1H155K200AA		
			±20%		CGA6M2X7R1H155M200AA		
	4532	1.60±0.20	±10%		CGA8L2X7R1H155K160KA		
2.2 µF	2012	1.25±0.20	±10%		CGA4J3X7R1H225K125AB	CGA4J1X7R1V225K125AC	CGA4J3X7R1E225K125AB
			±20%		CGA4J3X7R1H225M125AB	CGA4J1X7R1V225M125AC	CGA4J3X7R1E225M125AB
	3216	1.60+0.30,-0.10	±10%		CGA5L3X7R1H225K160AB	CGA5L3X7R1V225K160AB	CGA5L2X7R1E225K160AA
			±20%		CGA5L3X7R1H225M160AB	CGA5L3X7R1V225M160AB	CGA5L2X7R1E225M160AA
	3225	2.00±0.20	±10%		CGA6M3X7R1H225K200AB		
			±20%		CGA6M3X7R1H225M200AB		
	4532	1.60±0.20	±10%		CGA8L2X7R1H225K160KA		
3.3 µF	2012	1.25±0.20	±10%			CGA4J1X7R1V335K125AC	CGA4J1X7R1E335K125AC
			±20%			CGA4J1X7R1V335M125AC	CGA4J1X7R1E335M125AC
	3216	1.60+0.30,-0.10	±10%		CGA5L3X7R1H335K160AB	CGA5L1X7R1V335K160AC	CGA5L1X7R1E335K160AC
			±20%		CGA5L3X7R1H335M160AB	CGA5L1X7R1V335M160AC	CGA5L1X7R1E335M160AC
	3225	2.50±0.30	±10%		CGA6P3X7R1H335K250AB		
			±20%		CGA6P3X7R1H335M250AB		
	4532	2.00±0.20	±10%		CGA8M2X7R1H335K200KA		
4.7 µF	5750	1.25+0.25,-0.15	±10%		CGA4J1X7R1H475K125AC		
	2012	1.25±0.20	±10%			CGA4J1X7R1V475K125AC	CGA4J1X7R1E475K125AC
			±20%			CGA4J1X7R1V475M125AC	CGA4J1X7R1E475M125AC
	3216	1.60+0.30,-0.10	±10%		CGA5L3X7R1H475K160AB	CGA5L1X7R1V475K160AC	CGA5L1X7R1E475K160AC
			±20%		CGA5L3X7R1H475M160AB	CGA5L1X7R1V475M160AC	CGA5L1X7R1E475M160AC
	3225	2.50±0.30	±10%		CGA6P3X7R1H475K250AB		
			±20%		CGA6P3X7R1H475M250AB		
	4532	1.60±0.20	±10%				CGA8L2X7R1E475K160KA
			±20%				CGA8L2X7R1E475M160KA
		2.00±0.20	±10%		CGA8M3X7R1H475K200KB		
	5750	2.00±0.20	±10%		CGA9M2X7R1H475K200KA		
6.8 µF	3216	1.60+0.30,-0.10	±10%			CGA5L1X7R1V685K160AC	CGA5L1X7R1E685K160AC
			±20%			CGA5L1X7R1V685M160AC	CGA5L1X7R1E685M160AC
	3225	2.50±0.30	±10%				CGA6P3X7R1E685K250AB
			±20%				CGA6P3X7R1E685M250AB
	4532	2.50±0.30	±10%		CGA8P3X7R1H685K250KB		
	5750	2.50±0.30	±10%		CGA9P2X7R1H685K250KA		
10 µF	3216	1.60+0.30,-0.10	±10%		CGA5L1X7R1H106K160AC	CGA5L1X7R1V106K160AC	CGA5L1X7R1E106K160AC
			±20%			CGA5L1X7R1V106M160AC	CGA5L1X7R1E106M160AC
	3225	2.50±0.30	±10%	CGA6P1X7R1N106K250AC			CGA6P1X7R1E106K250AC
			±20%	CGA6P1X7R1N106M250AC			CGA6P1X7R1E106M250AC
	4532	2.50±0.30	±10%				CGA8P2X7R1E106K250KA
	5750	2.00±0.20	±20%				CGA9M2X7R1E106M200KA
		2.30±0.20	±10%		CGA9N3X7R1H106K230KB		
15 µF	3216	1.60+0.30,-0.10	±10%				CGA5L1X7R1E156K160AC
			±20%				CGA5L1X7R1E156M160AC
	3225	2.00±0.20	±20%				CGA6M3X7R1E156M200AB
	4532	2.80±0.30	±20%				CGA8Q3X7R1E156M280KB
	5750	2.30±0.20	±20%				CGA9N2X7R1E156M230KA
22 µF	3225	2.50±0.30	±20%				CGA6P3X7R1E226M250AB
	4532	2.50±0.30	±20%				CGA8P1X7R1E226M250KC
	5750	2.50±0.30	±20%		CGA9P3X7R1H226M250KB		CGA9P2X7R1E226M250KA
47 µF	5750	2.30±0.20	±20%			CGA9N1X7R1V476M230KC	CGA9N3X7R1E476M230KB

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Capacitance range table — X7R (-55 to +125°C, ±15%)

Capacitance	Size	Thickness (mm)	Cap Tolerance	Catalog numbers		
				Rated voltage: DC16V	Rated voltage: DC10V	Rated voltage: DC6.3V
100 pF	0603	0.30±0.03	±10%	CGA1A2X7R1C101K030BA		
			±20%	CGA1A2X7R1C101M030BA		
150 pF	0603	0.30±0.03	±10%	CGA1A2X7R1C151K030BA		
			±20%	CGA1A2X7R1C151M030BA		
220 pF	0603	0.30±0.03	±10%	CGA1A2X7R1C221K030BA		
			±20%	CGA1A2X7R1C221M030BA		
330 pF	0603	0.30±0.03	±10%	CGA1A2X7R1C331K030BA		
			±20%	CGA1A2X7R1C331M030BA		
470 pF	0603	0.30±0.03	±10%	CGA1A2X7R1C471K030BA		
			±20%	CGA1A2X7R1C471M030BA		
680 pF	0603	0.30±0.03	±10%	CGA1A2X7R1C681K030BA		
			±20%	CGA1A2X7R1C681M030BA		
1 nF	0603	0.30±0.03	±10%	CGA1A2X7R1C102K030BA		
			±20%	CGA1A2X7R1C102M030BA		
1.5 nF	0603	0.30±0.03	±10%	CGA1A2X7R1C152K030BA		
			±20%	CGA1A2X7R1C152M030BA		
2.2 nF	0603	0.30±0.03	±10%	CGA1A2X7R1C222K030BA		
			±20%	CGA1A2X7R1C222M030BA		
3.3 nF	0603	0.30±0.03	±10%	CGA1A2X7R1C332K030BA		
			±20%	CGA1A2X7R1C332M030BA		
4.7 nF	0603	0.30±0.03	±10%	CGA1A2X7R1C472K030BA		
			±20%	CGA1A2X7R1C472M030BA		
6.8 nF	0603	0.30±0.03	±10%	CGA1A2X7R1C682K030BA		
			±20%	CGA1A2X7R1C682M030BA		
10 nF	0603	0.30±0.03	±10%		CGA1A2X7R1A103K030BA	CGA1A2X7R0J103K030BA
			±20%		CGA1A2X7R1A103M030BA	CGA1A2X7R0J103M030BA
33 nF	1005	0.50±0.05	±10%	CGA2B2X7R1C333K050BA		
			±20%	CGA2B2X7R1C333M050BA		
47 nF	1005	0.50±0.05	±10%	CGA2B2X7R1C473K050BA		
			±20%	CGA2B2X7R1C473M050BA		
68 nF	1005	0.50±0.05	±10%	CGA2B1X7R1C683K050BC		
			±20%	CGA2B1X7R1C683M050BC		
100 nF	1005	0.50±0.05	±10%	CGA2B1X7R1C104K050BC		
			±20%	CGA2B1X7R1C104M050BC		
150 nF	1005	0.50±0.05	±10%	CGA2B2X7R1C154K050BA	CGA2B1X7R1A154K050BC	CGA2B3X7R0J154K050BB
			±20%	CGA2B2X7R1C154M050BA	CGA2B1X7R1A154M050BC	CGA2B3X7R0J154M050BB
220 nF	1005	0.50±0.05	±10%	CGA2B2X7R1C224K050BA	CGA2B1X7R1A224K050BC	CGA2B3X7R0J224K050BB
			±20%	CGA2B2X7R1C224M050BA	CGA2B1X7R1A224M050BC	CGA2B3X7R0J224M050BB
	1608	0.80±0.10	±10%	CGA3E2X7R1C224K080AA		
			±20%	CGA3E2X7R1C224M080AA		
330 nF	1608	0.80±0.10	±10%	CGA3E1X7R1C334K080AC		
			±20%	CGA3E1X7R1C334M080AC		
470 nF	1608	0.80±0.10	±10%	CGA3E1X7R1C474K080AC		
			±20%	CGA3E1X7R1C474M080AC		
	2012	1.25±0.20	±10%	CGA4J2X7R1C474K125AA		
680 nF	1608	0.80±0.10	±10%	CGA3E1X7R1C684K080AC		
			±20%	CGA3E1X7R1C684M080AC		
	2012	1.25±0.20	±10%	CGA4J2X7R1C684K125AA		
			±20%	CGA4J2X7R1C684M125AA		

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Capacitance range table — X7R (-55 to +125°C, ±15%)

Capaci-tance	Size	Thickness (mm)	Cap Tolerance	Catalog numbers		
				Rated voltage: DC16V	Rated voltage: DC10V	Rated voltage: DC6.3V
1 µF	1608	0.80±0.10	±10%	CGA3E1X7R1C105K080AC		
			±20%	CGA3E1X7R1C105M080AC		
	2012	1.25±0.20	±10%	CGA4J2X7R1C105K125AA		
			±20%	CGA4J2X7R1C105M125AA		
1.5 µF	1608	0.80±0.10	±10%			CGA3E1X7R0J155K080AC
			±20%			CGA3E1X7R0J155M080AC
	2012	1.25±0.20	±10%	CGA4J3X7R1C155K125AB		
			±20%	CGA4J3X7R1C155M125AB		
2.2 µF	1608	0.80±0.10	±10%			CGA3E1X7R0J225K080AC
			±20%			CGA3E1X7R0J225M080AC
	2012	1.25±0.20	±10%	CGA4J3X7R1C225K125AB		
			±20%	CGA4J3X7R1C225M125AB		
3.3 µF	2012	1.25±0.20	±10%	CGA4J3X7R1C335K125AB	CGA4J3X7R1A335K125AB	
			±20%	CGA4J3X7R1C335M125AB		
4.7 µF	2012	1.25±0.20	±10%	CGA4J3X7R1C475K125AB	CGA4J3X7R1A475K125AB	
			±20%	CGA4J3X7R1C475M125AB		
	3216	1.60+0.30,-0.10	±10%	CGA5L3X7R1C475K160AB		
			±20%	CGA5L3X7R1C475M160AB		
6.8 µF	2012	1.25±0.20	±10%			CGA4J1X7R0J685K125AC
			±20%			CGA4J1X7R0J685M125AC
	3216	1.60+0.30,-0.10	±10%	CGA5L1X7R1C685K160AC		
			±20%	CGA5L1X7R1C685M160AC		
10 µF	2012	1.25±0.20	±10%			CGA4J1X7R0J106K125AC
			±20%			CGA4J1X7R0J106M125AC
	3216	1.60+0.30,-0.10	±10%	CGA5L1X7R1C106K160AC		
			±20%	CGA5L1X7R1C106M160AC		
	3225	2.00±0.20	±10%	CGA6M3X7R1C106K200AB		
			±20%	CGA6M3X7R1C106M200AB		
15 µF	3225	2.50±0.30	±20%	CGA6P3X7R1C156M250AB		
22 µF	3216	1.60+0.30,-0.10	±20%			CGA5L1X7R0J226M160AC
	3225	2.50±0.30	±20%	CGA6P1X7R1C226M250AC		
	4532	2.30±0.20	±20%	CGA8N3X7R1C226M230KB		
33 µF	4532	2.50±0.30	±20%	CGA8P1X7R1C336M250KC		
47 µF	5750	2.30±0.20	±20%	CGA9N3X7R1C476M230KB		

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Capacitance range table

X7S (-55 to +125°C, ±22%)

Capaci-tance	Size	Thickness (mm)	Cap Tolerance	Catalog numbers		
				Rated voltage: DC50V	Rated voltage: DC35V	Rated voltage: DC25V
100 nF	0603	0.30+0.09,-0.03	±10%			CGA1A1X7S1E104K030BC
470 nF	1005	0.50+0.15,-0.05	±10%		CGA2B1X7S1V474K050BC	CGA2B3X7S1E474K050BB
2.2 µF	1608	0.80+0.20,-0.10	±10%			CGA3E1X7S1E225K080AC
4.7 µF	3225	2.30±0.20	±10%	CGA6N3X7S1H475K230AB		
6.8 µF	3225	2.50±0.30	±10%	CGA6P3X7S1H685K250AB		
			±20%	CGA6P3X7S1H685M250AB		
10 µF	2012	1.25+0.25,-0.15	±10%			CGA4J1X7S1E106K125AC
	3225	2.50±0.30	±10%	CGA6P3X7S1H106K250AB		
			±20%	CGA6P3X7S1H106M250AB		

Capaci-tance	Size	Thickness (mm)	Cap Tolerance	Catalog numbers			
				Rated voltage: DC16V	Rated voltage: DC10V	Rated voltage: DC6.3V	Rated voltage: DC4V
100 nF	0603	0.30+0.10,-0.03	±10%	CGA1A1X7S1C104K030BC	CGA1A3X7S1A104K030BB		
330 nF	1005	0.50±0.05	±10%	CGA2B1X7S1C334K050BC	CGA2B3X7S1A334K050BB		
			±20%	CGA2B1X7S1C334M050BC	CGA2B3X7S1A334M050BB		
470 nF	1005	0.50±0.05	±10%	CGA2B1X7S1C474K050BC	CGA2B3X7S1A474K050BB		
			±20%	CGA2B1X7S1C474M050BC	CGA2B3X7S1A474M050BB		
1.5 µF	1608	0.80±0.10	±10%	CGA3E1X7S1C155K080AC	CGA3E3X7S1A155K080AB		
			±20%	CGA3E1X7S1C155M080AC	CGA3E3X7S1A155M080AB		
2.2 µF	1608	0.80±0.10	±10%	CGA3E1X7S1C225K080AC	CGA3E3X7S1A225K080AB		
			±20%	CGA3E1X7S1C225M080AC	CGA3E3X7S1A225M080AB		
6.8 µF	2012	1.25±0.20	±10%	CGA4J1X7S1C685K125AC	CGA4J3X7S1A685K125AB		
			±20%	CGA4J1X7S1C685M125AC	CGA4J3X7S1A685M125AB		
10 µF	1608	0.80+0.30,-0.10	±20%				CGA3E1X7S0G106M080AC
	2012	1.25±0.20	±10%	CGA4J1X7S1C106K125AC	CGA4J3X7S1A106K125AB		
			±20%	CGA4J1X7S1C106M125AC	CGA4J3X7S1A106M125AB		
15 µF	3216	1.60+0.30,-0.10	±20%		CGA5L1X7S1A156M160AC		
22 µF	3216	1.60+0.30,-0.10	±20%		CGA5L1X7S1A226M160AC		
33 µF	3225	2.00±0.20	±20%		CGA6M1X7S1A336M200AC		
		2.50±0.30	±20%			CGA6P1X7S0J336M250AC	
47 µF	3225	2.50+0.35,-0.30	±20%			CGA6P1X7S0J476M250AC	
		2.50±0.30	±20%		CGA6P1X7S1A476M250AC		

・Gray: NRND (Not Recommended for New Designs)

・Click the catalog 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.

Capacitance range table

X7T (-55 to +125°C, +22,-33%)

Capaci-tance	Size	Thickness (mm)	Cap Tolerance	Catalog numbers			
				Rated voltage: DC10V	Rated voltage: DC6.3V	Rated voltage: DC4V	Rated voltage: DC2.5V
100 nF	0603	0.30+0.10,-0.03	±20%			CGA1A1X7T0G104M030BC	
220 nF	0603	0.30+0.09,-0.03	±20%			CGA1A1X7T0G224M030BC	CGA1A3X7T0E224M030BB
1 µF	1005	0.50+0.10,-0.05	±20%			CGA2B1X7T0G105M050BC	
4.7 µF	1608	0.80+0.30,-0.10	±10%	CGA3E1X7T1A475K080AC	CGA3E3X7T0J475K080AB		
10 µF	1608	0.80+0.30,-0.10	±20%	CGA3EDX7T1A106M080AU	CGA3E1X7T0J106M080AC	CGA3E1X7T0G106M080AC	
22 µF	2012	1.25+0.30,-0.15	±20%		CGA4J1X7T0J226M125AC		
	3216	1.60+0.30,-0.10	±10%		CGA5L1X7T0J226K160AC		
47 µF	3216	1.60+0.40,-0.10	±20%			CGA5L1X7T0G476M160AC	
100 µF	3225	2.50+0.40,-0.30	±20%			CGA6P1X7T0G107M250AC	CGA6P3X7T0E107M250AB

・Click the catalog numbers for details.

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