THE DATASHEET OF

C3216C0G2J103J160AA

TDK

September 2023

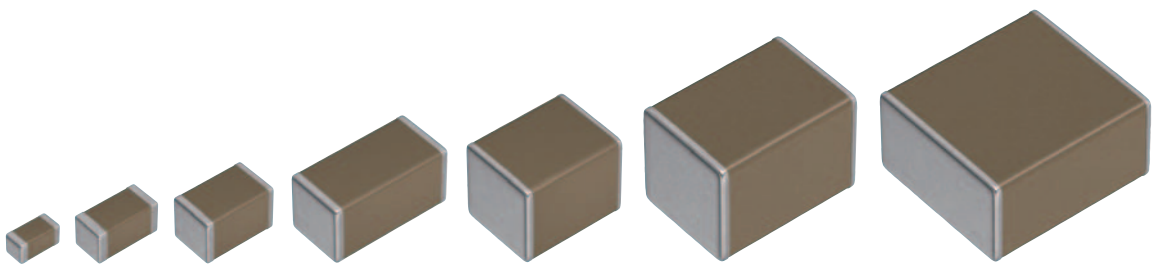
MULTILAYER CERAMIC CHIP CAPACITORS

Commercial grade, mid voltage (100 to 630V)

C series

C1005	**[0402 inch]**
C1608	**[0603 inch]**
C2012	**[0805 inch]**
C3216	**[1206 inch]**
C3225	**[1210 inch]**
C4532	**[1812 inch]**
C5750	**[2220 inch]**

*** 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 on this catalog are intended for use in general electronic equipment (AV equipment, telecommunications equipment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement equipment, industrial robots) under a normal operation and use condition.
   The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property.
   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 the each catalog, please contact us.

   (1) Aerospace/aviation equipment
   (2) Transportation equipment (cars, electric trains, ships, etc.)
   (3) Medical equipment (excepting Pharmaceutical Affairs Law classification Class1,2)
   (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.
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.

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

C series

Mid voltage (100 to 630V)

RoHS REACH Halogen Free Lead Free

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

SERIES OVERVIEW

Commerciale grade medium voltage C series is a product that supports circuits to which high voltages with rated voltages of 100 to 630V are applied. The maximum capacitance value is 22μF.

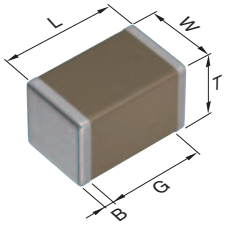
FEATURES

- Voltage rating of 100V, 250V, 350V, 450V and 630V
- C0G type having excellent stable temperature and DC-bias characteristics is also available

APPLICATIONS

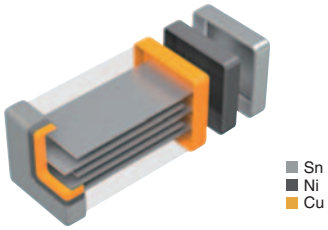
- Decoupling, smoothing, snubber and resonant circuits of high voltage circuits
- Wireless charging units, DC-DC converter, Inverter

SHAPE & DIMENSIONS



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

PRODUCT STRUCTURE



The structure which multiple sheets of dielectric and conductive material are layered alternately. The superior mechanical strength and reliability are realized by the monolithic and simple structure.

Dimensions in mm

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

∗ Dimensional tolerances are typical values.

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CATALOG NUMBER CONSTRUCTION

C	2012	X7R	2A	225	K	125	A	C
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

(1) Series

(2) Dimensions L x W (mm)

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

(3) Temperature characteristics

Temperature characteristics	Temperature coefficient or capacitance change	Temperature range
C0G	0±30 ppm/℃	–55 to +125℃
X5R	±15%	–55 to +85℃
X6S	±22%	–55 to +105℃
X7R	±15%	–55 to +125℃
X7S	±22%	–55 to +125℃
X7T	+22,-33%	–55 to +125℃

(4) Rated voltage (DC)

Code	Voltage (DC)
2A	100V
2E	250V
2V	350V
2W	450V
2J	630V

(5) Nominal capacitance (pF)

The capacitance is expressed in three digit codes and in units of pico Farads (pF). The first and second digits identify the first and second significant figures of the capacitance. The third digit identifies the multiplier. R designates a decimal point.

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

(6) Capacitance tolerance

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

(7) Thickness

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

(8) Packaging style

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

(9) Special reserved code

Code	Description
A, B, C, N	TDK internal code

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Capacitance range chart

C1005 [0402 inch]

Capacitance		C0G	X7S
(pF)	Code	2A (100V)	2A (100V)
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		

Standard thickness 0.50 mm

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 13 and after.

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Capacitance range chart

C1608 [0603 inch]

Capacitance		C0G		X5R	X7R	X7S
(pF)	Code	2E (250V)	2A (100V)	2A (100V)	2A (100V)	2A (100V)
1	010					
2	020					
3	030					
4	040					
5	050					
6	060					
7	070					
8	080					
9	090					
10	100					
15	150					
22	220					
33	330					
47	470					
68	680					
100	101					
150	151					
220	221					
330	331					
470	471					
680	681					
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					
100,000	104					

Standard thickness 0.8 mm

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Capacitance range chart

C2012 [0805 inch]

Capacitance		C0G			X5R		X7R	
(pF)	Code	2W (450V)	2E (250V)	2A (100V)	2E (250V)	2A (100V)	2E (250V)	2A (100V)
100	101							
150	151							
220	221							
330	331							
470	471							
680	681							
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							
100,000	104							
2,200,000	225							
4,700,000	475							

Capacitance		X7S	X7T		
(pF)	Code	2A (100V)	2W (450V)	2V (350V)	2E (250V)
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				

Standard thickness 0.60 mm 0.85 mm 1.25 mm

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

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Capacitance range chart

C3216 [1206 inch]

Capacitance		C0G			
(pF)	Code	2J (630V)	2W (450V)	2E (250V)	2A (100V)
100	101				
150	151				
220	221				
330	331				
470	471				
680	681				
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				
100,000	104				

Standard thickness 0.60 mm 0.85 mm 1.15 mm 1.30 mm 1.60 mm

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Capacitance range chart

C3216 [1206 inch]

Capacitance		X5R			X6S	X7R			X7S	X7T			
(pF)	Code	2J (630V)	2E (250V)	2A (100V)	2A (100V)	2J (630V)	2E (250V)	2A (100V)	2A (100V)	2J (630V)	2W (450V)	2V (350V)	2E (250V)
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												
10,000,000	106												

Standard thickness 0.85 mm 1.15 mm 1.30 mm 1.60 mm

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

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Capacitance range chart

C3225 [1210 inch]

Capacitance		C0G			
(pF)	Code	2J (630V)	2W (450V)	2E (250V)	2A (100V)
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				

Capacitance		X5R			X7R			X7S	X7T		
(pF)	Code	2J (630V)	2E (250V)	2A (100V)	2J (630V)	2E (250V)	2A (100V)	2A (100V)	2J (630V)	2W (450V)	2E (250V)
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										
10,000,000	106										

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

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

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Capacitance range chart

C4532 [1812 inch]

Capacitance		C0G			
(pF)	Code	2J (630V)	2W (450V)	2E (250V)	2A (100V)
8,200	822				
10,000	103				
15,000	153				
22,000	223				
33,000	333				
47,000	473				
68,000	683				
100,000	104				

Capacitance		X5R		X7R			X7S	X7T		
(pF)	Code	2J (630V)	2E (250V)	2J (630V)	2E (250V)	2A (100V)	2A (100V)	2J (630V)	2W (450V)	2E (250V)
68,000	683									
100,000	104									
150,000	154									
220,000	224									
300,000	304									
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									

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

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 13 and after.

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Capacitance range chart

C5750 [2220 inch]

Capacitance		C0G			
(pF)	Code	2J (630V)	2W (450V)	2E (250V)	2A (100V)
68,000	**683**				
100,000	**104**				
150,000	**154**				

Capacitance		X5R			X6S	X7R			X7S	X7T		
(pF)	Code	2J (630V)	2E (250V)	2A (100V)	2W (450V)	2J (630V)	2E (250V)	2A (100V)	2A (100V)	2J (630V)	2W (450V)	2E (250V)
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**											
15,000,000	**156**											
22,000,000	**226**											

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

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 13 and after.

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Capacitance range table — Temperature characteristic: C0G (–55 to +125°C, 0±30ppm/°C)

Capacitance	Dimensions	Thickness (mm)	Capacitance tolerance	Catalog number			
				Rated voltage Edc: 630V	Rated voltage Edc: 450V	Rated voltage Edc: 250V	Rated voltage Edc: 100V
1pF	1608	0.80±0.10	±0.25pF				C1608C0G2A010C080AA
2pF	1608	0.80±0.10	±0.25pF				C1608C0G2A020C080AA
3pF	1608	0.80±0.10	±0.25pF				C1608C0G2A030C080AA
4pF	1608	0.80±0.10	±0.25pF				C1608C0G2A040C080AA
5pF	1608	0.80±0.10	±0.25pF				C1608C0G2A050C080AA
6pF	1608	0.80±0.10	±0.50pF				C1608C0G2A060D080AA
7pF	1608	0.80±0.10	±0.50pF				C1608C0G2A070D080AA
8pF	1608	0.80±0.10	±0.50pF				C1608C0G2A080D080AA
9pF	1608	0.80±0.10	±0.50pF				C1608C0G2A090D080AA
10pF	1608	0.80±0.10	±0.50pF				C1608C0G2A100D080AA
15pF	1608	0.80±0.10	±5%				C1608C0G2A150J080AA
22pF	1608	0.80±0.10	±5%				C1608C0G2A220J080AA
33pF	1608	0.80±0.10	±5%				C1608C0G2A330J080AA
47pF	1608	0.80±0.10	±5%				C1608C0G2A470J080AA
68pF	1608	0.80±0.10	±5%				C1608C0G2A680J080AA
100pF	1005	0.50±0.05	±10%				C1005C0G2A101K050BA
			±5%				C1005C0G2A101J050BA
	1608	0.80±0.10	±10%			C1608C0G2E101K080AA	C1608C0G2A101K080AA
			±5%			C1608C0G2E101J080AA	C1608C0G2A101J080AA
			±2%				C1608C0G2A101G080AA
			±1%				C1608C0G2A101F080AA
	2012	0.60±0.15	±10%		C2012C0G2W101K060AA		
			±5%		C2012C0G2W101J060AA		
	3216	0.60±0.15	±10%	C3216C0G2J101K060AA			
			±5%	C3216C0G2J101J060AA			
150pF	1005	0.50±0.05	±10%				C1005C0G2A151K050BA
			±5%				C1005C0G2A151J050BA
	1608	0.80±0.10	±10%			C1608C0G2E151K080AA	C1608C0G2A151K080AA
			±5%			C1608C0G2E151J080AA	C1608C0G2A151J080AA
	2012	0.60±0.15	±10%		C2012C0G2W151K060AA		
			±5%		C2012C0G2W151J060AA		
	3216	0.60±0.15	±10%	C3216C0G2J151K060AA			
			±5%	C3216C0G2J151J060AA			
220pF	1005	0.50±0.05	±10%				C1005C0G2A221K050BA
			±5%				C1005C0G2A221J050BA
	1608	0.80±0.10	±10%			C1608C0G2E221K080AA	C1608C0G2A221K080AA
			±5%			C1608C0G2E221J080AA	C1608C0G2A221J080AA
	2012	0.60±0.15	±10%		C2012C0G2W221K060AA		
			±5%		C2012C0G2W221J060AA		
	3216	0.60±0.15	±10%	C3216C0G2J221K060AA			
			±5%	C3216C0G2J221J060AA			

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

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Capacitance range table — Temperature characteristic: C0G (–55 to +125°C, 0±30ppm/°C)

Capacitance	Dimensions	Thickness (mm)	Capacitance tolerance	Catalog number			
				Rated voltage Edc: 630V	Rated voltage Edc: 450V	Rated voltage Edc: 250V	Rated voltage Edc: 100V
330pF	1005	0.50±0.05	±10%				C1005C0G2A331K050BA
			±5%				C1005C0G2A331J050BA
	1608	0.80±0.10	±10%			C1608C0G2E331K080AA	C1608C0G2A331K080AA
			±5%			C1608C0G2E331J080AA	C1608C0G2A331J080AA
	2012	0.60±0.15	±10%		C2012C0G2W331K060AA		
			±5%		C2012C0G2W331J060AA		
	3216	0.60±0.15	±10%	C3216C0G2J331K060AA			
			±5%	C3216C0G2J331J060AA			
470pF	1005	0.50±0.05	±10%				C1005C0G2A471K050BA
			±5%				C1005C0G2A471J050BA
	1608	0.80±0.10	±10%			C1608C0G2E471K080AA	C1608C0G2A471K080AA
			±5%			C1608C0G2E471J080AA	C1608C0G2A471J080AA
	2012	0.60±0.15	±10%		C2012C0G2W471K060AA		
			±5%		C2012C0G2W471J060AA		
	3216	0.85±0.15	±10%	C3216C0G2J471K085AA			
			±5%	C3216C0G2J471J085AA			
680pF	1005	0.50±0.05	±10%				C1005C0G2A681K050BC
			±5%				C1005C0G2A681J050BC
	1608	0.80±0.10	±10%			C1608C0G2E681K080AA	C1608C0G2A681K080AA
			±5%			C1608C0G2E681J080AA	C1608C0G2A681J080AA
	2012	0.60±0.15	±10%		C2012C0G2W681K060AA		
			±5%		C2012C0G2W681J060AA		
	3216	0.85±0.15	±10%	C3216C0G2J681K085AA			
			±5%	C3216C0G2J681J085AA			
1nF	1005	0.50±0.05	±10%				C1005C0G2A102K050BC
			±5%				C1005C0G2A102J050BC
	1608	0.80±0.10	±10%			C1608C0G2E102K080AA	C1608C0G2A102K080AA
			±5%			C1608C0G2E102J080AA	C1608C0G2A102J080AA
			±2%				C1608C0G2A102G080AA
			±1%				C1608C0G2A102F080AA
	2012	0.60±0.15	±10%		C2012C0G2W102K060AA		
			±5%		C2012C0G2W102J060AA		C2012C0G2A102J060AA
		0.85±0.15	±10%			C2012C0G2E102K085AA	
			±5%			C2012C0G2E102J085AA	
	3216	0.85±0.15	±10%	C3216C0G2J102K085AA			
			±5%	C3216C0G2J102J085AA			

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Capacitance range table — Temperature characteristic: C0G (–55 to +125°C, 0±30ppm/°C)

Capacitance	Dimensions	Thickness (mm)	Capacitance tolerance	Catalog number			
				Rated voltage Edc: 630V	Rated voltage Edc: 450V	Rated voltage Edc: 250V	Rated voltage Edc: 100V
1.2nF	1608	0.80±0.10	±10%			C1608C0G2E122K080AA	C1608C0G2A122K080AA
			±5%			C1608C0G2E122J080AA	C1608C0G2A122J080AA
	2012	0.60±0.15	±10%		C2012C0G2W122K060AA		
			±5%		C2012C0G2W122J060AA		C2012C0G2A122J060AA
		0.85±0.15	±10%			C2012C0G2E122K085AA	
			±5%			C2012C0G2E122J085AA	
	3216	0.85±0.15	±10%	C3216C0G2J122K085AA			
			±5%	C3216C0G2J122J085AA			
1.5nF	1608	0.80±0.10	±10%			C1608C0G2E152K080AA	C1608C0G2A152K080AA
			±5%			C1608C0G2E152J080AA	C1608C0G2A152J080AA
	2012	0.60±0.15	±10%				C2012C0G2A152K060AA
			±5%				C2012C0G2A152J060AA
		0.85±0.15	±10%		C2012C0G2W152K085AA	C2012C0G2E152K085AA	
			±5%		C2012C0G2W152J085AA	C2012C0G2E152J085AA	
	3216	1.15±0.15	±10%	C3216C0G2J152K115AA			
			±5%	C3216C0G2J152J115AA			
1.8nF	1608	0.80±0.10	±10%			C1608C0G2E182K080AA	C1608C0G2A182K080AA
			±5%			C1608C0G2E182J080AA	C1608C0G2A182J080AA
	2012	0.85±0.15	±10%		C2012C0G2W182K085AA		C2012C0G2A182K085AA
			±5%		C2012C0G2W182J085AA		C2012C0G2A182J085AA
		1.25±0.20	±10%			C2012C0G2E182K125AA	
			±5%			C2012C0G2E182J125AA	
	3216	1.15±0.15	±10%	C3216C0G2J182K115AA			
			±5%	C3216C0G2J182J115AA			
2.2nF	1608	0.80±0.10	±10%				C1608C0G2A222K080AA
			±5%				C1608C0G2A222J080AA
		0.80+0.15,-0.10	±10%			C1608C0G2E222K080AA	
			±5%			C1608C0G2E222J080AA	
	2012	0.85±0.15	±10%		C2012C0G2W222K085AA		C2012C0G2A222K085AA
			±5%		C2012C0G2W222J085AA		C2012C0G2A222J085AA
		1.25±0.20	±10%			C2012C0G2E222K125AA	
			±5%			C2012C0G2E222J125AA	
	3216	1.15±0.15	±10%	C3216C0G2J222K115AA			
			±5%	C3216C0G2J222J115AA			
2.7nF	1608	0.80+0.15,-0.10	±10%				C1608C0G2A272K080AA
			±5%				C1608C0G2A272J080AA
	2012	1.25±0.20	±10%		C2012C0G2W272K125AA	C2012C0G2E272K125AA	C2012C0G2A272K125AA
			±5%		C2012C0G2W272J125AA	C2012C0G2E272J125AA	C2012C0G2A272J125AA
	3216	1.60±0.20	±10%	C3216C0G2J272K160AA			
			±5%	C3216C0G2J272J160AA			
3.3nF	1608	0.80+0.15,-0.10	±10%				C1608C0G2A332K080AA
			±5%				C1608C0G2A332J080AA
	2012	0.85±0.15	±10%			C2012C0G2E332K085AA	
			±5%			C2012C0G2E332J085AA	
		1.25±0.20	±10%		C2012C0G2W332K125AA		C2012C0G2A332K125AA
			±5%		C2012C0G2W332J125AA		C2012C0G2A332J125AA
	3216	0.85±0.15	±10%			C3216C0G2E332K085AA	
			±5%			C3216C0G2E332J085AA	
		1.60±0.20	±10%	C3216C0G2J332K160AA			
			±5%	C3216C0G2J332J160AA			
3.9nF	1608	0.80±0.10	±10%				C1608C0G2A392K080AC
			±5%				C1608C0G2A392J080AC
	2012	1.25±0.20	±10%		C2012C0G2W392K125AA	C2012C0G2E392K125AA	C2012C0G2A392K125AA
			±5%		C2012C0G2W392J125AA	C2012C0G2E392J125AA	C2012C0G2A392J125AA
	3216	0.60±0.15	±10%				C3216C0G2A392K060AA
			±5%				C3216C0G2A392J060AA
		0.85±0.15	±10%	C3216C0G2J392K085AA			
			±5%	C3216C0G2J392J085AA			
		1.15±0.15	±10%			C3216C0G2E392K115AA	
			±5%			C3216C0G2E392J115AA	
	3225	1.25±0.20	±10%	C3225C0G2J392K125AA			
			±5%	C3225C0G2J392J125AA			

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Capacitance range table — Temperature characteristic: C0G (–55 to +125°C, 0±30ppm/°C)

Capacitance	Dimensions	Thickness (mm)	Capacitance tolerance	Catalog number Rated voltage Edc: 630V	Rated voltage Edc: 450V	Rated voltage Edc: 250V	Rated voltage Edc: 100V
4.7nF	1608	0.80±0.10	±10%				C1608C0G2A472K080AC
			±5%				C1608C0G2A472J080AC
	2012	1.25±0.20	±10%		C2012C0G2W472K125AA	C2012C0G2E472K125AA	C2012C0G2A472K125AA
			±5%		C2012C0G2W472J125AA	C2012C0G2E472J125AA	C2012C0G2A472J125AA
	3216	0.85±0.15	±10%	C3216C0G2J472K085AA			C3216C0G2A472K085AA
			±5%	C3216C0G2J472J085AA			C3216C0G2A472J085AA
		1.15±0.15	±10%			C3216C0G2E472K115AA	
			±5%			C3216C0G2E472J115AA	
	3225	1.60±0.20	±10%	C3225C0G2J472K160AA			
			±5%	C3225C0G2J472J160AA			
5.6nF	1608	0.80±0.10	±10%				C1608C0G2A562K080AC
			±5%				C1608C0G2A562J080AC
	2012	1.25±0.20	±10%		C2012C0G2W562K125AA	C2012C0G2E562K125AA	C2012C0G2A562K125AA
			±5%		C2012C0G2W562J125AA	C2012C0G2E562J125AA	C2012C0G2A562J125AA
	3216	0.85±0.15	±10%				C3216C0G2A562K085AA
			±5%				C3216C0G2A562J085AA
		1.15±0.15	±10%	C3216C0G2J562K115AA		C3216C0G2E562K115AA	
			±5%	C3216C0G2J562J115AA		C3216C0G2E562J115AA	
	3225	1.60±0.20	±10%	C3225C0G2J562K160AA			
			±5%	C3225C0G2J562J160AA			
6.8nF	1608	0.80±0.10	±10%				C1608C0G2A682K080AC
			±5%				C1608C0G2A682J080AC
	2012	1.25±0.20	±10%			C2012C0G2E682K125AA	C2012C0G2A682K125AA
			±5%			C2012C0G2E682J125AA	C2012C0G2A682J125AA
	3216	1.15±0.15	±10%	C3216C0G2J682K115AA	C3216C0G2W682K115AA		C3216C0G2A682K115AA
			±5%	C3216C0G2J682J115AA	C3216C0G2W682J115AA		C3216C0G2A682J115AA
		1.60±0.20	±10%			C3216C0G2E682K160AA	
			±5%			C3216C0G2E682J160AA	
	3225	2.00±0.20	±10%	C3225C0G2J682K200AA			
			±5%	C3225C0G2J682J200AA			
8.2nF	1608	0.80±0.10	±10%				C1608C0G2A822K080AC
			±5%				C1608C0G2A822J080AC
	2012	1.25±0.20	±10%			C2012C0G2E822K125AA	C2012C0G2A822K125AA
			±5%			C2012C0G2E822J125AA	C2012C0G2A822J125AA
	3216	1.15±0.15	±10%		C3216C0G2W822K115AA		C3216C0G2A822K115AA
			±5%		C3216C0G2W822J115AA		C3216C0G2A822J115AA
		1.60±0.20	±10%	C3216C0G2J822K160AA		C3216C0G2E822K160AA	
			±5%	C3216C0G2J822J160AA		C3216C0G2E822J160AA	
	3225	1.25±0.20	±10%	C3225C0G2J822K125AA			
			±5%	C3225C0G2J822J125AA			
	4532	1.60±0.20	±10%	C4532C0G2J822K160KA			
			±5%	C4532C0G2J822J160KA			
10nF	1608	0.80±0.10	±10%				C1608C0G2A103K080AC
			±5%				C1608C0G2A103J080AC
	2012	1.25±0.20	±10%			C2012C0G2E103K125AA	C2012C0G2A103K125AA
			±5%			C2012C0G2E103J125AA	C2012C0G2A103J125AA
	3216	1.15±0.15	±10%			C3216C0G2E103K115AA	C3216C0G2A103K115AA
			±5%			C3216C0G2E103J115AA	C3216C0G2A103J115AA
		1.60±0.20	±10%	C3216C0G2J103K160AA	C3216C0G2W103K160AA		
			±5%	C3216C0G2J103J160AA	C3216C0G2W103J160AA		
	3225	1.25±0.20	±10%	C3225C0G2J103K125AA			
			±5%	C3225C0G2J103J125AA			
		1.60±0.20	±10%			C3225C0G2E103K160AA	
			±5%			C3225C0G2E103J160AA	
	4532	1.60±0.20	±10%	C4532C0G2J103K160KA			
			±5%	C4532C0G2J103J160KA			

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Capacitance range table — Temperature characteristic: C0G (–55 to +125°C, 0±30ppm/°C)

Capacitance	Dimensions	Thickness (mm)	Capacitance tolerance	Catalog number			
				Rated voltage Edc: 630V	Rated voltage Edc: 450V	Rated voltage Edc: 250V	Rated voltage Edc: 100V
15nF	2012	0.85±0.15	±10%				C2012C0G2A153K085AC
			±5%				C2012C0G2A153J085AC
	3216	1.15±0.15	±10%				C3216C0G2A153K115AA
			±5%				C3216C0G2A153J115AA
		1.60±0.20	±10%			C3216C0G2E153K160AA	
			±5%			C3216C0G2E153J160AA	
		1.60+0.30,-0.10	±10%		C3216C0G2W153K160AA		
			±5%		C3216C0G2W153J160AA		
	3225	1.25±0.20	±10%				C3225C0G2A153K125AA
			±5%				C3225C0G2A153J125AA
		1.60±0.20	±10%	C3225C0G2J153K160AA			
			±5%	C3225C0G2J153J160AA			
		2.00±0.20	±10%			C3225C0G2E153K200AA	
			±5%			C3225C0G2E153J200AA	
	4532	2.50±0.30	±10%	C4532C0G2J153K250KA			
			±5%	C4532C0G2J153J250KA			
22nF	2012	1.25±0.20	±10%				C2012C0G2A223K125AC
			±5%				C2012C0G2A223J125AC
	3216	1.60±0.20	±10%				C3216C0G2A223K160AA
			±5%				C3216C0G2A223J160AA
		1.60+0.30,-0.10	±10%			C3216C0G2E223K160AA	
			±5%			C3216C0G2E223J160AA	
	3225	1.60±0.20	±10%			C3225C0G2E223K160AA	C3225C0G2A223K160AA
			±5%			C3225C0G2E223J160AA	C3225C0G2A223J160AA
		2.30±0.20	±10%	C3225C0G2J223K230AA	C3225C0G2W223K230AA		
			±5%	C3225C0G2J223J230AA	C3225C0G2W223J230AA		
	4532	1.60±0.20	±10%			C4532C0G2E223K160KA	
			±5%			C4532C0G2E223J160KA	
		3.20±0.30	±10%	C4532C0G2J223K320KA			
			±5%	C4532C0G2J223J320KA			
33nF	2012	1.25±0.20	±10%				C2012C0G2A333K125AC
			±5%				C2012C0G2A333J125AC
	3216	1.60+0.30,-0.10	±10%				C3216C0G2A333K160AA
			±5%				C3216C0G2A333J160AA
	3225	2.00±0.20	±10%				C3225C0G2A333K200AA
			±5%				C3225C0G2A333J200AA
		2.30±0.20	±10%			C3225C0G2E333K230AA	
			±5%			C3225C0G2E333J230AA	
		2.50±0.30	±10%	C3225C0G2J333K250AA	C3225C0G2W333K250AA		
			±5%	C3225C0G2J333J250AA	C3225C0G2W333J250AA		
	4532	2.00±0.20	±10%	C4532C0G2J333K200KA		C4532C0G2E333K200KA	
			±5%	C4532C0G2J333J200KA		C4532C0G2E333J200KA	
47nF	3216	1.15±0.15	±10%				C3216C0G2A473K115AC
			±5%				C3216C0G2A473J115AC
	3225	2.30±0.20	±10%				C3225C0G2A473K230AA
			±5%				C3225C0G2A473J230AA
		2.50±0.30	±10%			C3225C0G2E473K250AA	
			±5%			C3225C0G2E473J250AA	
	4532	2.00±0.20	±10%				C4532C0G2A473K200KA
			±5%				C4532C0G2A473J200KA
		2.30±0.20	±10%		C4532C0G2W473K230KA		
			±5%		C4532C0G2W473J230KA		
		3.20±0.30	±10%	C4532C0G2J473K320KA		C4532C0G2E473K320KA	
			±5%	C4532C0G2J473J320KA		C4532C0G2E473J320KA	
68nF	3216	1.60±0.20	±10%				C3216C0G2A683K160AC
			±5%				C3216C0G2A683J160AC
	3225	2.30±0.20	±10%				C3225C0G2A683K230AA
			±5%				C3225C0G2A683J230AA
	4532	2.30±0.20	±10%			C4532C0G2E683K230KN	
			±5%			C4532C0G2E683J230KN	
		2.50±0.30	±10%				C4532C0G2A683K250KA
			±5%				C4532C0G2A683J250KA
		3.20±0.30	±10%		C4532C0G2W683K320KA		
			±5%		C4532C0G2W683J320KA		
	5750	2.30±0.20	±10%	C5750C0G2J683K230KC			
			±5%	C5750C0G2J683J230KC			

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Capacitance range table — Temperature characteristic: C0G (–55 to +125°C, 0±30ppm/°C)

Capacitance	Dimensions	Thickness (mm)	Capacitance tolerance	Catalog number			
				Rated voltage Edc: 630V	Rated voltage Edc: 450V	Rated voltage Edc: 250V	Rated voltage Edc: 100V
100nF	3216	1.60±0.20	±10%				C3216C0G2A104K160AC
			±5%				C3216C0G2A104J160AC
	4532	3.20±0.30	±10%			C4532C0G2E104K320KN	C4532C0G2A104K320KA
			±5%			C4532C0G2E104J320KN	C4532C0G2A104J320KA
	5750	2.80±0.30	±10%	C5750C0G2J104K280KC	C5750C0G2W104K280KA		
			±5%	C5750C0G2J104J280KC	C5750C0G2W104J280KA		
150nF	5750	2.30±0.20	±10%			C5750C0G2E154K230KN	C5750C0G2A154K230KA
			±5%			C5750C0G2E154J230KN	C5750C0G2A154J230KA

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Capacitance range table — Temperature characteristic: X5R (–55 to +85°C, ±15%)

Capacitance	Dimensions	Thickness (mm)	Capacitance tolerance	Catalog number		
				Rated voltage Edc: 630V	Rated voltage Edc: 250V	Rated voltage Edc: 100V
1nF	1608	0.80±0.10	±10%			C1608X5R2A102K080AA
			±20%			C1608X5R2A102M080AA
	2012	0.85±0.15	±10%		C2012X5R2E102K085AA	
			±20%		C2012X5R2E102M085AA	
	3216	1.15±0.15	±10%	C3216X5R2J102K115AA		
			±20%	C3216X5R2J102M115AA		
1.5nF	1608	0.80±0.10	±10%			C1608X5R2A152K080AA
			±20%			C1608X5R2A152M080AA
	2012	0.85±0.15	±10%		C2012X5R2E152K085AA	
			±20%		C2012X5R2E152M085AA	
	3216	1.15±0.15	±10%	C3216X5R2J152K115AA		
			±20%	C3216X5R2J152M115AA		
2.2nF	1608	0.80±0.10	±10%			C1608X5R2A222K080AA
			±20%			C1608X5R2A222M080AA
	2012	0.85±0.15	±10%		C2012X5R2E222K085AA	
			±20%		C2012X5R2E222M085AA	
	3216	1.15±0.15	±10%	C3216X5R2J222K115AA		
			±20%	C3216X5R2J222M115AA		
3.3nF	1608	0.80±0.10	±10%			C1608X5R2A332K080AA
			±20%			C1608X5R2A332M080AA
	2012	0.85±0.15	±10%		C2012X5R2E332K085AA	
			±20%		C2012X5R2E332M085AA	
	3216	1.15±0.15	±10%	C3216X5R2J332K115AA		
			±20%	C3216X5R2J332M115AA		
4.7nF	1608	0.80±0.10	±10%			C1608X5R2A472K080AA
			±20%			C1608X5R2A472M080AA
	2012	0.85±0.15	±10%		C2012X5R2E472K085AA	
			±20%		C2012X5R2E472M085AA	
	3216	1.15±0.15	±10%	C3216X5R2J472K115AA		
			±20%	C3216X5R2J472M115AA		
6.8nF	1608	0.80±0.10	±10%			C1608X5R2A682K080AA
			±20%			C1608X5R2A682M080AA
	2012	1.25±0.20	±10%		C2012X5R2E682K125AA	
			±20%		C2012X5R2E682M125AA	
	3216	1.15±0.15	±10%	C3216X5R2J682K115AA		
			±20%	C3216X5R2J682M115AA		
10nF	1608	0.80±0.10	±10%			C1608X5R2A103K080AA
			±20%			C1608X5R2A103M080AA
	2012	1.25±0.20	±10%		C2012X5R2E103K125AA	
			±20%		C2012X5R2E103M125AA	
	3216	1.15±0.15	±10%	C3216X5R2J103K115AA		
			±20%	C3216X5R2J103M115AA		
15nF	1608	0.80±0.10	±10%			C1608X5R2A153K080AA
			±20%			C1608X5R2A153M080AA
	2012	1.25±0.20	±10%		C2012X5R2E153K125AA	
			±20%		C2012X5R2E153M125AA	
	3216	1.30±0.20	±10%	C3216X5R2J153K130AA		
			±20%	C3216X5R2J153M130AA		
22nF	1608	0.80±0.10	±10%			C1608X5R2A223K080AA
			±20%			C1608X5R2A223M080AA
	2012	1.25±0.20	±10%		C2012X5R2E223K125AA	
			±20%		C2012X5R2E223M125AA	
	3216	1.30±0.20	±10%	C3216X5R2J223K130AA		
			±20%	C3216X5R2J223M130AA		
33nF	2012	1.25±0.20	±10%			C2012X5R2A333K125AA
			±20%			C2012X5R2A333M125AA
	3216	1.60±0.20	±10%	C3216X5R2J333K160AA	C3216X5R2E333K160AA	
			±20%	C3216X5R2J333M160AA	C3216X5R2E333M160AA	
47nF	2012	1.25±0.20	±10%			C2012X5R2A473K125AA
			±20%			C2012X5R2A473M125AA
	3216	1.60±0.20	±10%		C3216X5R2E473K160AA	
			±20%		C3216X5R2E473M160AA	
	3225	2.00±0.20	±10%	C3225X5R2J473K200AA		
			±20%	C3225X5R2J473M200AA		
68nF	2012	0.85±0.15	±10%			C2012X5R2A683K085AA
			±20%			C2012X5R2A683M085AA
	3216	1.60±0.20	±10%		C3216X5R2E683K160AA	
			±20%		C3216X5R2E683M160AA	
	3225	2.00±0.20	±10%	C3225X5R2J683K200AA		
			±20%	C3225X5R2J683M200AA		

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Capacitance range table — Temperature characteristic: X5R (–55 to +85°C, ±15%)

Capacitance	Dimensions	Thickness (mm)	Capacitance tolerance	Catalog number		
				Rated voltage Edc: 630V	Rated voltage Edc: 250V	Rated voltage Edc: 100V
100nF	2012	1.25±0.20	±10%			C2012X5R2A104K125AA
			±20%			C2012X5R2A104M125AA
	3216	1.60±0.20	±10%		C3216X5R2E104K160AA	
			±20%		C3216X5R2E104M160AA	
	4532	2.30±0.20	±10%	C4532X5R2J104K230KA		
			±20%	C4532X5R2J104M230KA		
150nF	3216	1.60±0.20	±10%			C3216X5R2A154K160AA
			±20%			C3216X5R2A154M160AA
	3225	2.00±0.20	±10%		C3225X5R2E154K200AA	
			±20%		C3225X5R2E154M200AA	
	5750	1.60±0.20	±10%	C5750X5R2J154K160KA		
			±20%	C5750X5R2J154M160KA		
220nF	3216	1.15±0.15	±10%			C3216X5R2A224K115AA
			±20%			C3216X5R2A224M115AA
	3225	2.00±0.20	±10%		C3225X5R2E224K200AA	
			±20%		C3225X5R2E224M200AA	
	5750	2.30±0.20	±10%	C5750X5R2J224K230KA		
			±20%	C5750X5R2J224M230KA		
330nF	3216	1.30±0.20	±10%			C3216X5R2A334K130AA
			±20%			C3216X5R2A334M130AA
	4532	2.30±0.20	±10%		C4532X5R2E334K230KA	
			±20%		C4532X5R2E334M230KA	
470nF	3216	1.60±0.20	±10%			C3216X5R2A474K160AA
			±20%			C3216X5R2A474M160AA
	4532	2.30±0.20	±10%		C4532X5R2E474K230KA	
			±20%		C4532X5R2E474M230KA	
680nF	3216	1.60±0.20	±10%			C3216X5R2A684K160AA
			±20%			C3216X5R2A684M160AA
	5750	2.30±0.20	±10%		C5750X5R2E684K230KA	
			±20%		C5750X5R2E684M230KA	
1µF	3216	1.60±0.20	±10%			C3216X5R2A105K160AA
			±20%			C3216X5R2A105M160AA
	5750	2.30±0.20	±10%		C5750X5R2E105K230KA	
			±20%		C5750X5R2E105M230KA	
1.5µF	3225	2.00±0.20	±10%			C3225X5R2A155K200AB
			±20%			C3225X5R2A155M200AB
2.2µF	3225	2.30±0.20	±10%			C3225X5R2A225K230AB
			±20%			C3225X5R2A225M230AB
3.3µF	5750	2.30±0.20	±10%			C5750X5R2A335K230KA
			±20%			C5750X5R2A335M230KA
4.7µF	2012	1.25+0.25,-0.15	±10%			C2012X5R2A475K125AC
	5750	2.30±0.20	±10%			C5750X5R2A475K230KA
			±20%			C5750X5R2A475M230KA

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Capacitance range table — Temperature characteristic: X6S (–55 to +105°C, ±22%)

Capacitance	Dimensions	Thickness (mm)	Capacitance tolerance	Catalog number	
				Rated voltage Edc: 450V	Rated voltage Edc: 100V
1µF	5750	2.50±0.30	±10%	C5750X6S2W105K250KA	
			±20%	C5750X6S2W105M250KA	
2.2µF	5750	2.50±0.30	±10%	C5750X6S2W225K250KA	
			±20%	C5750X6S2W225M250KA	
10µF	3216	1.60+0.30,-0.10	±10%		C3216X6S2A106K160AC

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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: 630V	Rated voltage Edc: 250V	Rated voltage Edc: 100V
1nF	1608	0.80±0.10	±10%			C1608X7R2A102K080AA
			±20%			C1608X7R2A102M080AA
	2012	0.85±0.15	±10%		C2012X7R2E102K085AA	C2012X7R2A102K085AA
			±20%		C2012X7R2E102M085AA	C2012X7R2A102M085AA
	3216	1.15±0.15	±10%	C3216X7R2J102K115AA		
			±20%	C3216X7R2J102M115AA		
1.5nF	1608	0.80±0.10	±10%			C1608X7R2A152K080AA
			±20%			C1608X7R2A152M080AA
	2012	0.85±0.15	±10%		C2012X7R2E152K085AA	C2012X7R2A152K085AA
			±20%		C2012X7R2E152M085AA	C2012X7R2A152M085AA
	3216	1.15±0.15	±10%	C3216X7R2J152K115AA		
			±20%	C3216X7R2J152M115AA		
2.2nF	1608	0.80±0.10	±10%			C1608X7R2A222K080AA
			±20%			C1608X7R2A222M080AA
	2012	0.85±0.15	±10%		C2012X7R2E222K085AA	C2012X7R2A222K085AA
			±20%		C2012X7R2E222M085AA	C2012X7R2A222M085AA
	3216	1.15±0.15	±10%	C3216X7R2J222K115AA		
			±20%	C3216X7R2J222M115AA		
3.3nF	1608	0.80±0.10	±10%			C1608X7R2A332K080AA
			±20%			C1608X7R2A332M080AA
	2012	0.85±0.15	±10%		C2012X7R2E332K085AA	C2012X7R2A332K085AA
			±20%		C2012X7R2E332M085AA	C2012X7R2A332M085AA
	3216	1.15±0.15	±10%	C3216X7R2J332K115AA		
			±20%	C3216X7R2J332M115AA		
4.7nF	1608	0.80±0.10	±10%			C1608X7R2A472K080AA
			±20%			C1608X7R2A472M080AA
	2012	0.85±0.15	±10%		C2012X7R2E472K085AA	C2012X7R2A472K085AA
			±20%		C2012X7R2E472M085AA	C2012X7R2A472M085AA
	3216	1.15±0.15	±10%	C3216X7R2J472K115AA		
			±20%	C3216X7R2J472M115AA		
6.8nF	1608	0.80±0.10	±10%			C1608X7R2A682K080AA
			±20%			C1608X7R2A682M080AA
	2012	0.85±0.15	±10%			C2012X7R2A682K085AA
			±20%			C2012X7R2A682M085AA
		1.25±0.20	±10%		C2012X7R2E682K125AA	
			±20%		C2012X7R2E682M125AA	
	3216	1.15±0.15	±10%	C3216X7R2J682K115AA		
			±20%	C3216X7R2J682M115AA		
10nF	1608	0.80±0.10	±10%			C1608X7R2A103K080AA
			±20%			C1608X7R2A103M080AA
	2012	0.85±0.15	±10%			C2012X7R2A103K085AA
			±20%			C2012X7R2A103M085AA
		1.25±0.20	±10%		C2012X7R2E103K125AA	
			±20%		C2012X7R2E103M125AA	
	3216	1.15±0.15	±10%	C3216X7R2J103K115AA		
			±20%	C3216X7R2J103M115AA		
15nF	1608	0.80±0.10	±10%			C1608X7R2A153K080AA
			±20%			C1608X7R2A153M080AA
	2012	1.25±0.20	±10%		C2012X7R2E153K125AA	C2012X7R2A153K125AA
			±20%		C2012X7R2E153M125AA	C2012X7R2A153M125AA
	3216	1.15±0.15	±10%		C3216X7R2E153K115AA	
			±20%		C3216X7R2E153M115AA	
		1.30±0.20	±10%	C3216X7R2J153K130AA		
			±20%	C3216X7R2J153M130AA		
22nF	1608	0.80±0.10	±10%			C1608X7R2A223K080AA
			±20%			C1608X7R2A223M080AA
	2012	1.25±0.20	±10%		C2012X7R2E223K125AA	C2012X7R2A223K125AA
			±20%		C2012X7R2E223M125AA	C2012X7R2A223M125AA
	3216	1.15±0.15	±10%		C3216X7R2E223K115AA	
			±20%		C3216X7R2E223M115AA	
		1.30±0.20	±10%	C3216X7R2J223K130AA		
			±20%	C3216X7R2J223M130AA		
33nF	2012	1.25±0.20	±10%			C2012X7R2A333K125AA
			±20%			C2012X7R2A333M125AA
	3216	1.15±0.15	±10%			C3216X7R2A333K115AA
			±20%			C3216X7R2A333M115AA
		1.60±0.20	±10%	C3216X7R2J333K160AA	C3216X7R2E333K160AA	
			±20%	C3216X7R2J333M160AA	C3216X7R2E333M160AA	

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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: 630V	Rated voltage Edc: 250V	Rated voltage Edc: 100V
47nF	2012	1.25±0.20	±10%			C2012X7R2A473K125AA
			±20%			C2012X7R2A473M125AA
	3216	1.15±0.15	±10%			C3216X7R2A473K115AA
			±20%			C3216X7R2A473M115AA
		1.60±0.20	±10%		C3216X7R2E473K160AA	
			±20%		C3216X7R2E473M160AA	
	3225	2.00±0.20	±10%	C3225X7R2J473K200AA		
			±20%	C3225X7R2J473M200AA		
68nF	2012	0.85±0.15	±10%			C2012X7R2A683K085AA
			±20%			C2012X7R2A683M085AA
	3216	1.60±0.20	±10%		C3216X7R2E683K160AA	C3216X7R2A683K160AA
			±20%		C3216X7R2E683M160AA	C3216X7R2A683M160AA
	3225	2.00±0.20	±10%	C3225X7R2J683K200AA		
			±20%	C3225X7R2J683M200AA		
	4532	1.60±0.20	±10%	C4532X7R2J683K160KA		
			±20%	C4532X7R2J683M160KA		
100nF	2012	1.25±0.20	±10%			C2012X7R2A104K125AA
			±20%			C2012X7R2A104M125AA
	3216	1.60±0.20	±10%		C3216X7R2E104K160AA	C3216X7R2A104K160AA
			±20%		C3216X7R2E104M160AA	C3216X7R2A104M160AA
	3225	2.00±0.20	±10%		C3225X7R2E104K200AA	
			±20%		C3225X7R2E104M200AA	
	4532	2.30±0.20	±10%	C4532X7R2J104K230KA		
			±20%	C4532X7R2J104M230KA		
150nF	3216	1.60±0.20	±10%			C3216X7R2A154K160AA
			±20%			C3216X7R2A154M160AA
	3225	2.00±0.20	±10%		C3225X7R2E154K200AA	
			±20%		C3225X7R2E154M200AA	
	4532	1.60±0.20	±10%		C4532X7R2E154K160KA	
			±20%		C4532X7R2E154M160KA	
	5750	1.60±0.20	±10%	C5750X7R2J154K160KA		
			±20%	C5750X7R2J154M160KA		
220nF	3216	1.15±0.15	±10%			C3216X7R2A224K115AA
			±20%			C3216X7R2A224M115AA
	3225	2.00±0.20	±10%		C3225X7R2E224K200AA	
			±20%		C3225X7R2E224M200AA	
	4532	2.30±0.20	±10%		C4532X7R2E224K230KA	
			±20%		C4532X7R2E224M230KA	
	5750	2.30±0.20	±10%	C5750X7R2J224K230KA		
			±20%	C5750X7R2J224M230KA		
330nF	3216	1.30±0.20	±10%			C3216X7R2A334K130AA
			±20%			C3216X7R2A334M130AA
	3225	2.00±0.20	±10%			C3225X7R2A334K200AA
			±20%			C3225X7R2A334M200AA
	4532	2.30±0.20	±10%		C4532X7R2E334K230KA	
			±20%		C4532X7R2E334M230KA	
	5750	1.60±0.20	±10%		C5750X7R2E334K160KA	
			±20%		C5750X7R2E334M160KA	
470nF	3216	1.60±0.20	±10%			C3216X7R2A474K160AA
			±20%			C3216X7R2A474M160AA
	3225	2.00±0.20	±10%			C3225X7R2A474K200AA
			±20%			C3225X7R2A474M200AA
	4532	2.30±0.20	±10%		C4532X7R2E474K230KA	
			±20%		C4532X7R2E474M230KA	
	5750	2.30±0.20	±10%		C5750X7R2E474K230KA	
			±20%		C5750X7R2E474M230KA	
680nF	3216	1.60±0.20	±10%			C3216X7R2A684K160AA
			±20%			C3216X7R2A684M160AA
	3225	1.60±0.20	±10%			C3225X7R2A684K160AA
			±20%			C3225X7R2A684M160AA
	4532	2.30±0.20	±10%			C4532X7R2A684K230KA
			±20%			C4532X7R2A684M230KA
	5750	1.60±0.20	±10%			C5750X7R2A684K160KA
			±20%			C5750X7R2A684M160KA
		2.30±0.20	±10%		C5750X7R2E684K230KA	
			±20%		C5750X7R2E684M230KA	

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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: 250V	Rated voltage Edc: 100V
1μF	3216	1.60±0.20	±10%		C3216X7R2A105K160AA
			±20%		C3216X7R2A105M160AA
	3225	2.00±0.20	±10%		C3225X7R2A105K200AA
			±20%		C3225X7R2A105M200AA
	4532	2.30±0.20	±10%		C4532X7R2A105K230KA
			±20%		C4532X7R2A105M230KA
	5750	2.30±0.20	±10%	C5750X7R2E105K230KA	C5750X7R2A105K230KA
			±20%	C5750X7R2E105M230KA	C5750X7R2A105M230KA
1.5μF	3225	2.00±0.20	±10%		C3225X7R2A155K200AB
			±20%		C3225X7R2A155M200AB
	4532	2.30±0.20	±10%		C4532X7R2A155K230KA
			±20%		C4532X7R2A155M230KA
	5750	2.30±0.20	±10%		C5750X7R2A155K230KA
			±20%		C5750X7R2A155M230KA
2.2μF	2012	1.25+0.25,-0.15	±10%		C2012X7R2A225K125AC
	3225	2.30±0.20	±10%		C3225X7R2A225K230AB
			±20%		C3225X7R2A225M230AB
	4532	2.30±0.20	±10%		C4532X7R2A225K230KA
			±20%		C4532X7R2A225M230KA
	5750	2.30±0.20	±10%		C5750X7R2A225K230KA
			±20%		C5750X7R2A225M230KA
3.3μF	5750	2.30±0.20	±10%		C5750X7R2A335K230KA
			±20%		C5750X7R2A335M230KA
4.7μF	3216	1.60+0.30,-0.10	±10%		C3216X7R2A475K160AC
	5750	2.30±0.20	±10%		C5750X7R2A475K230KA
			±20%		C5750X7R2A475M230KA
10μF	3225	2.50+0.35,-0.30	±10%		C3225X7R2A106K250AC

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Capacitance range table — Temperature characteristic: X7S (–55 to +125°C, ±22%)

Capacitance	Dimensions	Thickness (mm)	Capacitance tolerance	Catalog number Rated voltage Edc: 100V
1nF	1005	0.50±0.05	±10%	C1005X7S2A102K050BB
			±20%	C1005X7S2A102M050BB
1.5nF	1005	0.50±0.05	±10%	C1005X7S2A152K050BB
			±20%	C1005X7S2A152M050BB
2.2nF	1005	0.50±0.05	±10%	C1005X7S2A222K050BB
			±20%	C1005X7S2A222M050BB
3.3nF	1005	0.50±0.05	±10%	C1005X7S2A332K050BB
			±20%	C1005X7S2A332M050BB
4.7nF	1005	0.50±0.05	±10%	C1005X7S2A472K050BB
			±20%	C1005X7S2A472M050BB
6.8nF	1005	0.50±0.05	±10%	C1005X7S2A682K050BB
			±20%	C1005X7S2A682M050BB
10nF	1005	0.50±0.05	±10%	C1005X7S2A103K050BB
			±20%	C1005X7S2A103M050BB
33nF	1608	0.80±0.10	±10%	C1608X7S2A333K080AB
			±20%	C1608X7S2A333M080AB
47nF	1608	0.80±0.10	±10%	C1608X7S2A473K080AB
			±20%	C1608X7S2A473M080AB
68nF	1608	0.80±0.10	±10%	C1608X7S2A683K080AB
			±20%	C1608X7S2A683M080AB
100nF	1608	0.80±0.10	±10%	C1608X7S2A104K080AB
			±20%	C1608X7S2A104M080AB
150nF	2012	0.85±0.15	±10%	C2012X7S2A154K085AB
			±20%	C2012X7S2A154M085AB
220nF	2012	0.85±0.15	±10%	C2012X7S2A224K085AB
			±20%	C2012X7S2A224M085AB
330nF	2012	1.25±0.20	±10%	C2012X7S2A334K125AB
			±20%	C2012X7S2A334M125AB
470nF	2012	1.25±0.20	±10%	C2012X7S2A474K125AB
			±20%	C2012X7S2A474M125AB
680nF	2012	1.25±0.20	±10%	C2012X7S2A684K125AB
			±20%	C2012X7S2A684M125AB
1µF	2012	1.25±0.20	±10%	C2012X7S2A105K125AB
			±20%	C2012X7S2A105M125AB
1.5µF	3216	1.60±0.20	±10%	C3216X7S2A155K160AB
			±20%	C3216X7S2A155M160AB
2.2µF	3216	1.60±0.20	±10%	C3216X7S2A225K160AB
			±20%	C3216X7S2A225M160AB
3.3µF	3216	1.60+0.30,-0.10	±10%	C3216X7S2A335K160AB
			±20%	C3216X7S2A335M160AB
	3225	2.00±0.20	±10%	C3225X7S2A335K200AB
			±20%	C3225X7S2A335M200AB
	4532	2.00±0.20	±10%	C4532X7S2A335K200KB
			±20%	C4532X7S2A335M200KB
4.7µF	3225	2.00±0.20	±10%	C3225X7S2A475K200AB
			±20%	C3225X7S2A475M200AB
	4532	2.30±0.20	±10%	C4532X7S2A475K230KB
			±20%	C4532X7S2A475M230KB
6.8µF	5750	2.00±0.20	±10%	C5750X7S2A685K200KB
			±20%	C5750X7S2A685M200KB
10µF	5750	2.30±0.20	±10%	C5750X7S2A106K230KB
			±20%	C5750X7S2A106M230KB
15µF	5750	2.50±0.30	±20%	C5750X7S2A156M250KB
22µF	5750	2.80±0.30	±20%	C5750X7S2A226M280KB

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Capacitance range table — Temperature characteristic: X7T (–55 to +125°C, +22, –33%)

Capacitance	Dimensions	Thickness (mm)	Capacitance tolerance	Catalog number			
				Rated voltage Edc: 630V	Rated voltage Edc: 450V	Rated voltage Edc: 350V	Rated voltage Edc: 250V
10nF	2012	0.85±0.15	±10%		C2012X7T2W103K085AA	C2012X7T2V103K085AA	
			±20%		C2012X7T2W103M085AA	C2012X7T2V103M085AA	
	3216	0.85±0.15	±10%	C3216X7T2J103K085AC			
			±20%	C3216X7T2J103M085AC			
15nF	2012	0.85±0.15	±10%		C2012X7T2W153K085AA	C2012X7T2V153K085AA	
			±20%		C2012X7T2W153M085AA	C2012X7T2V153M085AA	
	3216	0.85±0.15	±10%	C3216X7T2J153K085AC			
			±20%	C3216X7T2J153M085AC			
22nF	2012	1.25±0.20	±10%		C2012X7T2W223K125AA	C2012X7T2V223K125AA	
			±20%		C2012X7T2W223M125AA	C2012X7T2V223M125AA	
	3216	1.15±0.15	±10%	C3216X7T2J223K115AC			
			±20%	C3216X7T2J223M115AC			
33nF	2012	1.25±0.20	±10%		C2012X7T2W333K125AA	C2012X7T2V333K125AA	C2012X7T2E333K125AA
			±20%		C2012X7T2W333M125AA	C2012X7T2V333M125AA	C2012X7T2E333M125AA
	3216	1.15±0.15	±10%	C3216X7T2J333K115AC			
			±20%	C3216X7T2J333M115AC			
47nF	2012	1.25±0.20	±10%		C2012X7T2W473K125AA	C2012X7T2V473K125AA	C2012X7T2E473K125AA
			±20%		C2012X7T2W473M125AA	C2012X7T2V473M125AA	C2012X7T2E473M125AA
	3216	1.60±0.20	±10%	C3216X7T2J473K160AC			
			±20%	C3216X7T2J473M160AC			
68nF	2012	1.25±0.20	±10%				C2012X7T2E683K125AA
			±20%				C2012X7T2E683M125AA
	3216	1.30±0.20	±10%		C3216X7T2W683K130AA	C3216X7T2V683K130AA	
			±20%		C3216X7T2W683M130AA	C3216X7T2V683M130AA	
100nF	2012	1.25±0.20	±10%				C2012X7T2E104K125AA
			±20%				C2012X7T2E104M125AA
	3216	1.60±0.20	±10%		C3216X7T2W104K160AA	C3216X7T2V104K160AA	
			±20%		C3216X7T2W104M160AA	C3216X7T2V104M160AA	
	3225	1.60±0.20	±10%	C3225X7T2J104K160AC			
			±20%	C3225X7T2J104M160AC			
150nF	3216	1.30±0.20	±10%				C3216X7T2E154K130AA
			±20%				C3216X7T2E154M130AA
	3225	2.00±0.20	±10%	C3225X7T2J154K200AC			
			±20%	C3225X7T2J154M200AC			
	4532	1.60±0.20	±10%	C4532X7T2J154K160KC			
			±20%	C4532X7T2J154M160KC			
220nF	3216	1.60±0.20	±10%				C3216X7T2E224K160AA
			±20%				C3216X7T2E224M160AA
	3225	2.00±0.20	±10%		C3225X7T2W224K200AA		
			±20%		C3225X7T2W224M200AA		
	4532	2.00±0.20	±10%	C4532X7T2J224K200KC			
			±20%	C4532X7T2J224M200KC			
300nF	4532	2.50±0.30	±10%	C4532X7T2J304K250KA			
			±20%	C4532X7T2J304M250KA			
330nF	3225	2.00±0.20	±10%				C3225X7T2E334K200AA
			±20%				C3225X7T2E334M200AA
	4532	1.60±0.20	±10%		C4532X7T2W334K160KA		
			±20%		C4532X7T2W334M160KA		
	5750	2.00±0.20	±10%	C5750X7T2J334K200KC			
			±20%	C5750X7T2J334M200KC			
470nF	4532	2.30±0.20	±10%		C4532X7T2W474K230KA		
			±20%		C4532X7T2W474M230KA		
	5750	2.50±0.30	±10%	C5750X7T2J474K250KC			
			±20%	C5750X7T2J474M250KC			
680nF	4532	1.60±0.20	±10%				C4532X7T2E684K160KA
			±20%				C4532X7T2E684M160KA
	5750	2.00±0.20	±10%		C5750X7T2W684K200KA		
			±20%		C5750X7T2W684M200KA		
1µF	4532	2.50±0.30	±10%				C4532X7T2E105K250KA
			±20%				C4532X7T2E105M250KA
	5750	2.50±0.30	±10%		C5750X7T2W105K250KA		
			±20%		C5750X7T2W105M250KA		
1.5µF	5750	2.00±0.20	±10%				C5750X7T2E155K200KA
			±20%				C5750X7T2E155M200KA
2.2µF	5750	2.50±0.30	±10%				C5750X7T2E225K250KA
			±20%				C5750X7T2E225M250KA

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