



## MULTILAYER CERAMIC CHIP CAPACITORS

### **C Series Commercial Grade Mid Voltage (100 to 630V)**

Type:

C1005 [EIA CC0402]  
C1608 [EIA CC0603]  
C2012 [EIA CC0805]  
C3216 [EIA CC1206]  
C3225 [EIA CC1210]  
C4532 [EIA CC1812]  
C5750 [EIA CC2220]

Issue date:  
Mar 2015



## REMINDERS

Please read before using this product

### SAFETY REMINDERS



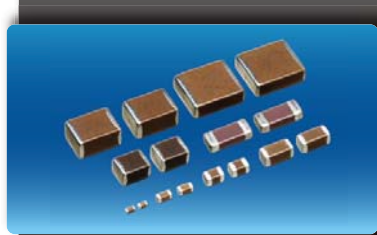
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Notice: Effective January 2013, TDK will use a new catalog number which adds product thickness and packaging specification detail. This new catalog number should be referenced on all catalog orders going forward, and is not applicable for OEM part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

(Example)

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



## C Series Mid Voltage (100 to 630V)

Type: C1005 [EIA CC0402], C1608 [EIA CC0603], C2012 [EIA CC0805], C3216 [EIA CC1206], C3225 [EIA CC1210], C4532 [EIA CC1812], C5750 [EIA CC2220]

### Features



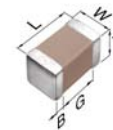
- Voltage rating of 100V to 630V with capacitance range up to 15 $\mu$ F.
- High capacitance has been achieved through precision technologies that enable the use of multiple thinner ceramic dielectric layers.
- Low residual inductance assures superior frequency characteristics.
- Excellent DC Bias properties.
- A lineup with wide-ranging rated voltages that enables selections that are suitable for needs.

### Applications



- Snubber in power supply
- Electric flash circuits in digital still camera
- Power factor improvement
- Input-output filter in power supply
- Driver circuit in plasma display
- Noise bypass

### Shape & Dimensions



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



### Catalog Number Construction

**C** • **3225** • **X7R** • **2A** • **105** • **K** • **200** • **A** • **A**

#### Series Name

#### Dimensions L x W (mm)

Code	Length	Width	Terminal
C1005	1.00 ± 0.05	0.50 ± 0.05	0.10 min.
C1608	1.60 ± 0.10	0.80 ± 0.10	0.20 min.
C2012	2.00 ± 0.20	1.25 ± 0.20	0.20 min.
C3216	3.20 ± 0.20	1.60 ± 0.20	0.20 min.
C3225	3.20 ± 0.40	2.50 ± 0.30	0.20 min.
C4532	4.50 ± 0.40	3.20 ± 0.40	0.20 min.
C5750	5.70 ± 0.40	5.00 ± 0.40	0.20 min.

\*Dimension tolerance are typical values

#### Temperature Characteristics

Temperature Characteristics	Temperature Coefficient or Capacitance Change	Temperature Range
CH	0±60 ppm/°C	-25 to +85°C
COG	0±30 ppm/°C	-55 to +125°C
JB	±10%	-25 to +85°C
X5R	±15%	-55 to +85°C
X6S	±22%	-55 to +105°C
X7R	±15%	-55 to +125°C
X7S	±22%	-55 to +125°C
X7T	+22/-33%	-55 to +125°C

#### Rated Voltage (DC)

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

#### Nominal Capacitance (pF)

The capacitance is expressed in three digit codes and in units of pico Farads (pF). The first and second digits identify the first and second significant figures of the capacitance. The third digit identifies the multiplier. R designates a decimal point.  
Ex. 0R2 = 0.2pF; 103 = 10,000pF; 105 = 1,000,000pF = 100nF

#### Capacitance Tolerance

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

#### Nominal Thickness

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

#### 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

#### Special Reserved Code

Code	Description
A, B, C	TDK Internal Code



## Capacitance Range Chart

## EIA CC0402 [C1005]

### Capacitance Range Chart

Temperature Characteristics: C0G ( $0 \pm 30\text{ppm}/^\circ\text{C}$ ), CH ( $0 \pm 60\text{ppm}/^\circ\text{C}$ ), X7S  
 Rated Voltage: 100V (2A)

Capacitance (pF)	Code	Tolerance	C0G	CH	X7S
			2A (100V)	2A (100V)	2A (100V)
100	101	J: $\pm 5\%$	■	■	
120	121	K: $\pm 10\%$	■	■	
150	151	M: $\pm 20\%$	■	■	
180	181		■	■	
220	221		■	■	
270	271		■	■	
330	331		■	■	
390	391		■	■	
470	471		■	■	
560	561		■	■	
680	681		■	■	
820	821		■	■	
1,000	102				■
1,500	152				■
2,200	222				■
3,300	332				■
4,700	472				■
6,800	682				■
10,000	103				■

Standard Thickness  
 0.50 mm



## Capacitance Range Chart

## EIA CC0603 [C1608]

### Capacitance Range Chart

Temperature Characteristics: C0G (0 ± 30ppm/°C), CH (0 ± 60ppm/°C), JB (±10%), X5R (±15%), X7R (±15%), X7S (±22%)  
 Rated Voltage: 250V (2E), 100V (2A)

Capacitance (pF)	Code	Tolerance	C0G		CH		JB	X5R	X7R	X7S
			2E (250V)	2A (100V)	2E (250V)	2A (100V)	2A (100V)	2A (100V)	2A (100V)	2A (100V)
1	010	C : ± 0.25pF								
1.5	1R5	D : ± 0.50pF								
2	020	F : ± 1%								
2.2	2R2	G : ± 2%								
3	030	J : ± 5%								
3.3	3R3	K : ± 10%								
4	040	M : ± 20%								
4.7	4R7									
5	050									
6	060									
6.8	6R8									
7	070									
8	080									
9	090									
10	100									
12	120									
15	150									
18	180									
22	220									
27	270									
33	330									
39	390									
47	470									
56	560									
68	680									
82	820									
100	101		█		█					
120	121									
150	151									
180	181									
220	221									
270	271									
330	331									
390	391									
470	471									
560	561									
680	681									
820	821									
1,000	102					█	█	█		
1,200	122									
1,500	152					█	█	█		
1,800	182									
2,200	222					█	█	█		
2,700	272									
3,300	332					█	█	█		
3,900	392									
4,700	472					█	█	█		
5,600	562									
6,800	682					█	█	█		
8,200	822									
10,000	103					█	█	█		
15,000	153									
22,000	223					█	█	█		
33,000	333									
47,000	473									
68,000	683									
100,000	104									█

Standard Thickness  
 0.80 mm

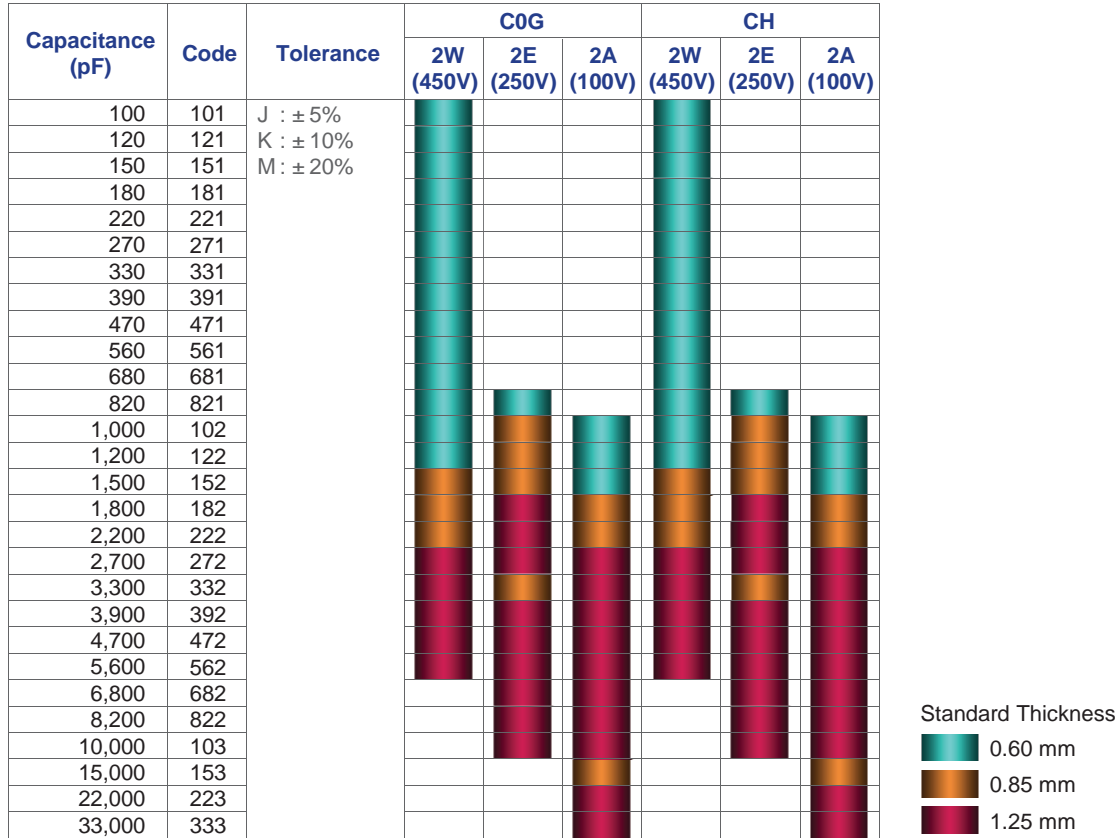


## Capacitance Range Chart

## EIA CC0805 [C2012]

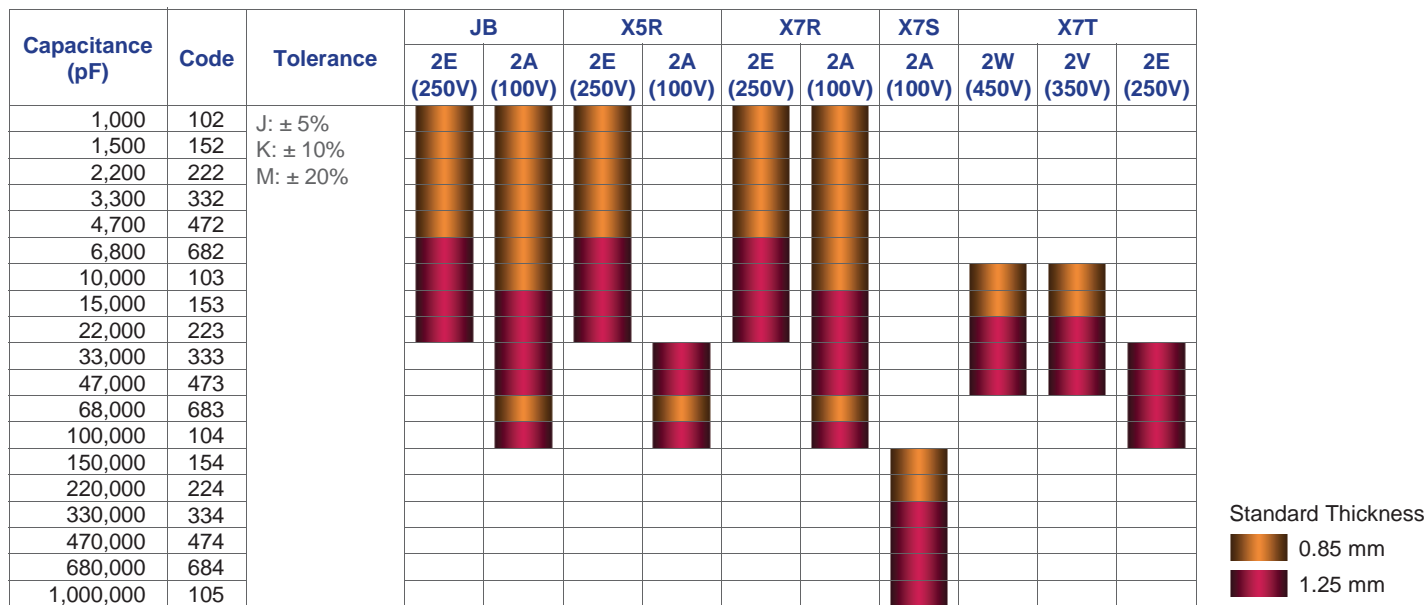
### Capacitance Range Chart

Temperature Characteristics: COG (0 ± 30ppm/°C), CH (0 ± 60ppm/°C)  
 Rated Voltage: 450V (2W), 250V (2E), 100V (2A)



### Capacitance Range Chart

Temperature Characteristics: JB (±10%), X5R (±15%), X7R (±15%), X7S (±22%), X7T (+22/-33%)  
 Rated Voltage: 450V (2W), 350V (2V), 250V (2E), 100V (2A)



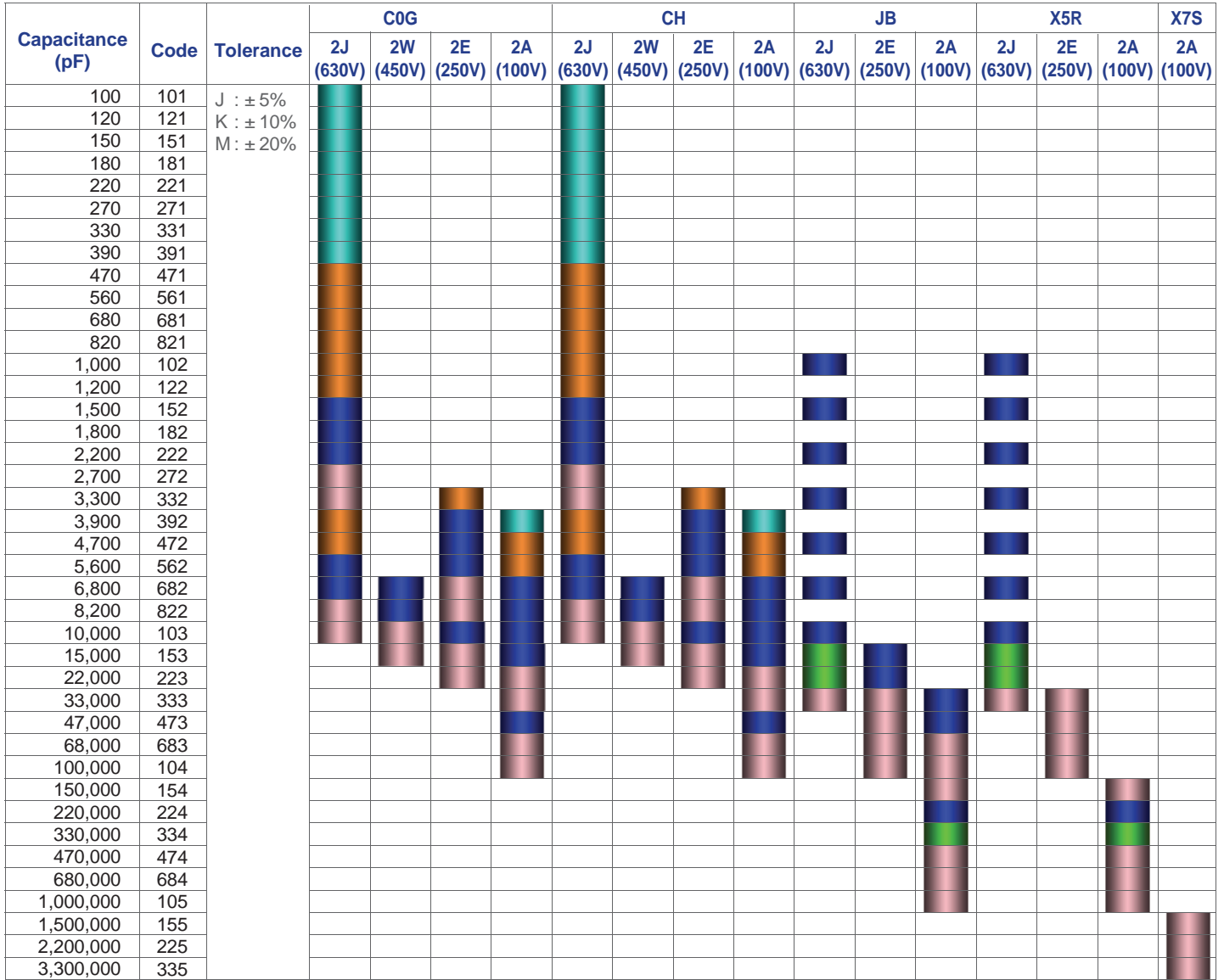


## Capacitance Range Chart

## EIA CC1206 [C3216]

### Capacitance Range Chart

Temperature Characteristics: C0G (0 ± 30ppm/°C), CH (0 ± 60ppm/°C), JB (±10%), X5R (±15%), X7S (±22%)  
 Rated Voltage: 630V (2J), 450V (2W), 250V (2E), 100V (2A)



Standard Thickness





## Capacitance Range Chart

## EIA CC1206 [C3216]

### Capacitance Range Chart

Temperature Characteristics: X7R ( $\pm 15\%$ ), X7S ( $\pm 22\%$ ), X7T ( $+22/-33\%$ )  
 Rated Voltage: 630V (2J), 450V (2W), 350V (2V), 250V (2E), 100V (2A)

Capacitance (pF)	Code	Tolerance	X7R			X7T			
			2J (630V)	2E (250V)	2A (100V)	2J (630V)	2W (450V)	2V (350V)	2E (250V)
1,000	102	K: $\pm 10\%$ M: $\pm 20\%$	■						
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								■

Standard Thickness

- 0.85 mm
- 1.15 mm
- 1.30 mm
- 1.60 mm



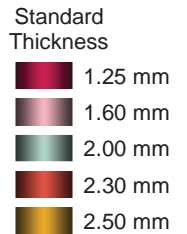
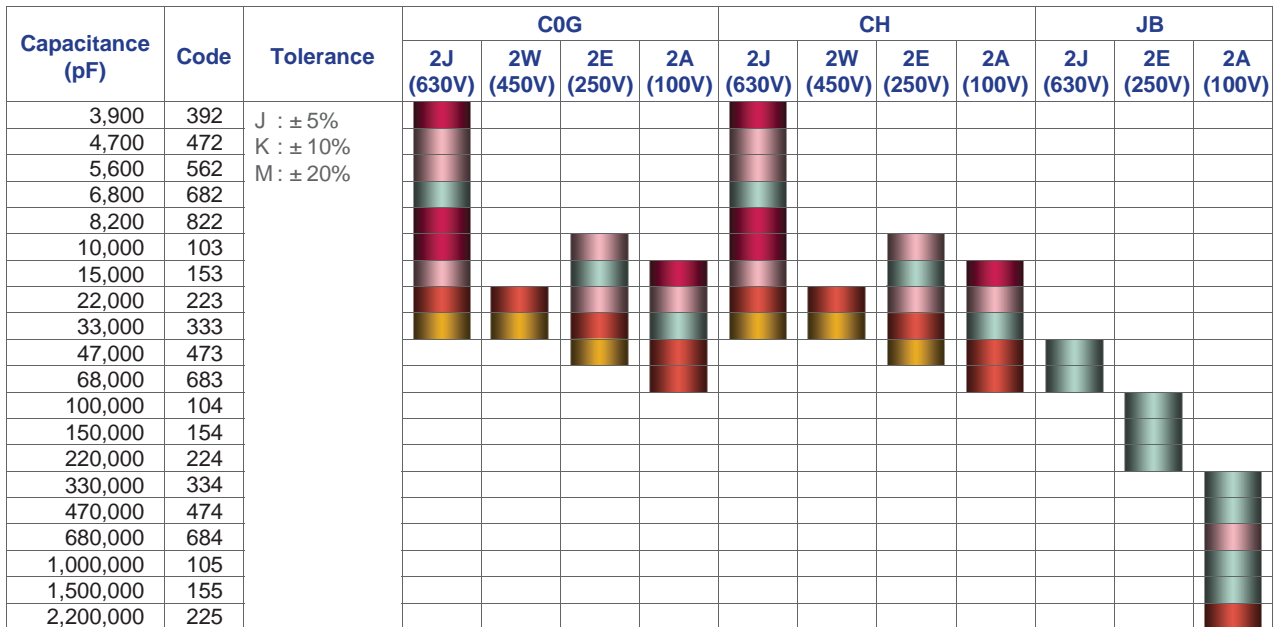


## Capacitance Range Chart

## EIA CC1210 [C3225]

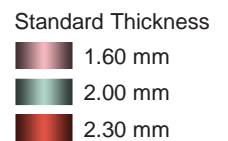
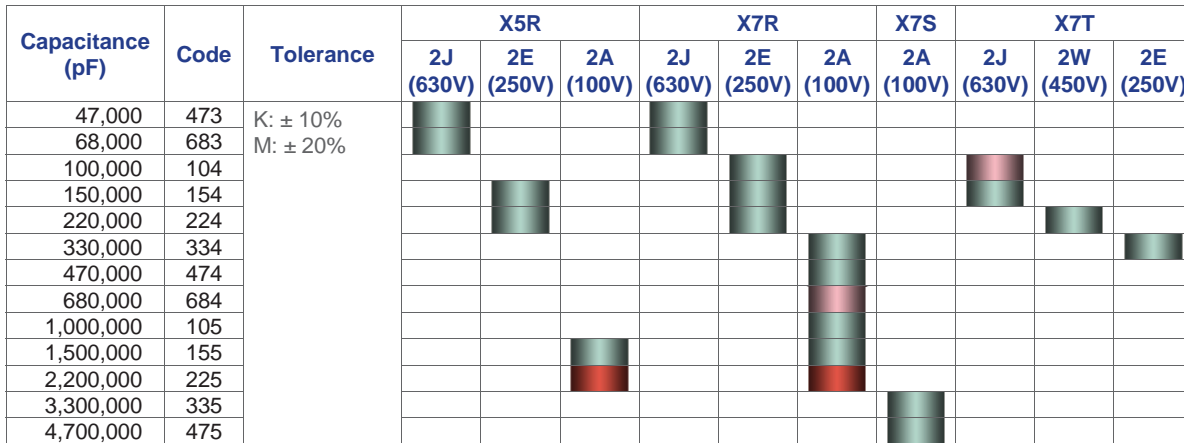
### Capacitance Range Chart

Temperature Characteristics: C0G ( $0 \pm 30\text{ppm}/^\circ\text{C}$ ), CH ( $0 \pm 60\text{ppm}/^\circ\text{C}$ ), JB ( $\pm 10\%$ )  
 Rated Voltage: 630V (2J), 450V (2W), 250V (2E), 100V (2A)



### Capacitance Range Chart

Temperature Characteristics: X5R ( $\pm 15\%$ ), X7R ( $\pm 15\%$ ), X7S ( $\pm 22\%$ ), X7T ( $+22/-33\%$ )  
 Rated Voltage: 630V (2J), 450V (2W), 250V (2E), 100V (2A)





## Capacitance Range Chart

## EIA CC1812 [C4532]

### Capacitance Range Chart

Temperature Characteristics: C0G ( $0 \pm 30\text{ppm}/^\circ\text{C}$ ), CH ( $0 \pm 60\text{ppm}/^\circ\text{C}$ ), JB ( $\pm 10\%$ )  
 Rated Voltage: 630V (2J), 450V (2W), 250V (2E), 100V (2A)

Capacitance (pF)	Code	Tolerance	C0G				CH				JB			Standard Thickness	
			2J (630V)	2W (450V)	2E (250V)	2A (100V)	2J (630V)	2W (450V)	2E (250V)	2A (100V)	2J (630V)	2E (250V)	2A (100V)		
8,200	822	J : $\pm 5\%$	■				■								
10,000	103	K : $\pm 10\%$	■				■								
15,000	153	M : $\pm 20\%$	■				■								
22,000	223		■				■								
33,000	333		■				■								
47,000	473		■	■		■	■								
68,000	683			■		■	■								
100,000	104					■	■								
150,000	154														
220,000	224												■		
330,000	334														
680,000	684														
1,000,000	105														
1,500,000	155														
2,200,000	225														■

### Capacitance Range Chart

Temperature Characteristics: X5R ( $\pm 15\%$ ), X7R ( $\pm 15\%$ ), X7S ( $\pm 22\%$ ), X7T ( $+22\%/-33\%$ )  
 Rated Voltage: 630V (2J), 450V (2W), 250V (2E), 100V (2A)

Capacitance (pF)	Code	Tolerance	X5R		X7R		X7S	X7T			Standard Thickness	
			2J (630V)	2E (250V)	2J (630V)	2E (250V)	2A (100V)	2A (100V)	2J (630V)	2W (450V)		2E (250V)
68,000	683	K : $\pm 10\%$			■							
100,000	104	M : $\pm 20\%$	■		■							
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											



## Capacitance Range Chart

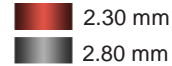
## EIA CC2220 [C5750]

### Capacitance Range Chart

Temperature Characteristics: C0G (0 ±30ppm/°C), CH (0 ±60ppm/°C)  
 Rated Voltage: 630V (2J), 450V (2W), 250V (2E), 100V (2A)

Capacitance (pF)	Code	Tolerance	C0G				CH			
			2J (630V)	2W (450V)	2E (250V)	2A (100V)	2J (630V)	2W (450V)	2E (250V)	2A (100V)
68,000	683	K : ± 10%	■				■			
100,000	104	J : ± 5%	■	■			■	■		
150,000	154				■	■			■	■

Standard Thickness

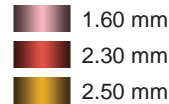


### Capacitance Range Chart

Temperature Characteristics: JB (±10%), X5R (±15%), X6S (±22%)  
 Rated Voltage: 630V (2J), 250V (2E), 100V (2A)

Capacitance (pF)	Code	Tolerance	JB			X5R			X6S
			2J (630V)	2E (250V)	2A (100V)	2J (630V)	2E (250V)	2A (100V)	2W (450V)
150,000	154	K: ± 10% M: ± 20%	■			■			
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								

Standard Thickness

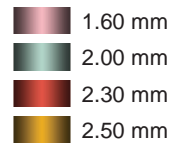


### Capacitance Range Chart

Temperature Characteristics: X7R (±15%), X7S (±22%), X7T (+22/-33%)  
 Rated Voltage: 630V (2J), 450V (2W), 250V (2E), 100V (2A)

Capacitance (pF)	Code	Tolerance	X7R			X7S	X7T		
			2J (630V)	2E (250V)	2A (100V)	2A (100V)	2J (630V)	2W (450V)	2E (250V)
150,000	154	K: ± 10% M: ± 20%	■						
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							■	

Standard Thickness





## Capacitance Range Table

### Class 1 (Temperature Compensating)

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

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number			
				Rated Voltage Edc: 630V	Rated Voltage Edc: 450V	Rated Voltage Edc: 250V	Rated Voltage Edc: 100V
1 pF	1608	0.80 ± 0.10	± 0.25pF				C1608C0G2A010C080AA
1.5 pF	1608	0.80 ± 0.10	± 0.25pF				C1608C0G2A1R5C080AA
2 pF	1608	0.80 ± 0.10	± 0.25pF				C1608C0G2A020C080AA
2.2 pF	1608	0.80 ± 0.10	± 0.25pF				C1608C0G2A2R2C080AA
3 pF	1608	0.80 ± 0.10	± 0.25pF				C1608C0G2A030C080AA
3.3 pF	1608	0.80 ± 0.10	± 0.25pF				C1608C0G2A3R3C080AA
4 pF	1608	0.80 ± 0.10	± 0.25pF				C1608C0G2A040C080AA
4.7 pF	1608	0.80 ± 0.10	± 0.25pF				C1608C0G2A4R7C080AA
5 pF	1608	0.80 ± 0.10	± 0.25pF				C1608C0G2A050C080AA
6 pF	1608	0.80 ± 0.10	± 0.50pF				C1608C0G2A060D080AA
6.8 pF	1608	0.80 ± 0.10	± 0.50pF				C1608C0G2A6R8D080AA
7 pF	1608	0.80 ± 0.10	± 0.50pF				C1608C0G2A070D080AA
8 pF	1608	0.80 ± 0.10	± 0.50pF				C1608C0G2A080D080AA
9 pF	1608	0.80 ± 0.10	± 0.50pF				C1608C0G2A090D080AA
10 pF	1608	0.80 ± 0.10	± 0.50pF				C1608C0G2A100D080AA
12 pF	1608	0.80 ± 0.10	± 5%				C1608C0G2A120J080AA
15 pF	1608	0.80 ± 0.10	± 5%				C1608C0G2A150J080AA
18 pF	1608	0.80 ± 0.10	± 5%				C1608C0G2A180J080AA
22 pF	1608	0.80 ± 0.10	± 5%				C1608C0G2A220J080AA
27 pF	1608	0.80 ± 0.10	± 5%				C1608C0G2A270J080AA
33 pF	1608	0.80 ± 0.10	± 5%				C1608C0G2A330J080AA
39 pF	1608	0.80 ± 0.10	± 5%				C1608C0G2A390J080AA
47 pF	1608	0.80 ± 0.10	± 5%				C1608C0G2A470J080AA
56 pF	1608	0.80 ± 0.10	± 5%				C1608C0G2A560J080AA
68 pF	1608	0.80 ± 0.10	± 5%				C1608C0G2A680J080AA
82 pF	1608	0.80 ± 0.10	± 5%				C1608C0G2A820J080AA
100 pF	1005	0.50 ± 0.05	± 10%				C1005C0G2A101K050BA
			± 5%				C1005C0G2A101J050BA
	1608	0.80 ± 0.10	± 10%			C1608C0G2E101K080AA	C1608C0G2A101K080AA
			± 5%			C1608C0G2E101J080AA	C1608C0G2A101J080AA
			± 2%				C1608C0G2A101G080AA
			± 1%				C1608C0G2A101F080AA
			± 10%			C2012C0G2W101K060AA	
			± 5%			C2012C0G2W101J060AA	
	2012	0.60 ± 0.15	± 10%			C3216C0G2J101K060AA	
			± 5%			C3216C0G2J101J060AA	
3216	0.60 ± 0.15	± 10%					
		± 5%					
120 pF	1005	0.50 ± 0.05	± 10%				C1005C0G2A121K050BA
			± 5%				C1005C0G2A121J050BA
	1608	0.80 ± 0.10	± 10%			C1608C0G2E121K080AA	C1608C0G2A121K080AA
			± 5%			C1608C0G2E121J080AA	C1608C0G2A121J080AA
	2012	0.60 ± 0.15	± 10%			C2012C0G2W121K060AA	
			± 5%			C2012C0G2W121J060AA	
3216	0.60 ± 0.15	± 10%			C3216C0G2J121K060AA		
		± 5%			C3216C0G2J121J060AA		
150 pF	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		
180 pF	1005	0.50 ± 0.05	± 10%				C1005C0G2A181K050BA
			± 5%				C1005C0G2A181J050BA
	1608	0.80 ± 0.10	± 10%			C1608C0G2E181K080AA	C1608C0G2A181K080AA
			± 5%			C1608C0G2E181J080AA	C1608C0G2A181J080AA
	2012	0.60 ± 0.15	± 10%			C2012C0G2W181K060AA	
			± 5%			C2012C0G2W181J060AA	
3216	0.60 ± 0.15	± 10%			C3216C0G2J181K060AA		
		± 5%			C3216C0G2J181J060AA		



## Capacitance Range Table

### Class 1 (Temperature Compensating)

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

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number			
				Rated Voltage Edc: 630V	Rated Voltage Edc: 450V	Rated Voltage Edc: 250V	Rated Voltage Edc: 100V
220 pF	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			
270 pF	1005	0.50 ± 0.05	± 10%				C1005C0G2A271K050BA
			± 5%				C1005C0G2A271J050BA
	1608	0.80 ± 0.10	± 10%			C1608C0G2E271K080AA	C1608C0G2A271K080AA
			± 5%		C1608C0G2E271J080AA	C1608C0G2A271J080AA	
	2012	0.60 ± 0.15	± 10%		C2012C0G2W271K060AA		
		± 5%		C2012C0G2W271J060AA			
330 pF	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			
390 pF	1005	0.50 ± 0.05	± 10%				C1005C0G2A391K050BA
			± 5%				C1005C0G2A391J050BA
	1608	0.80 ± 0.10	± 10%			C1608C0G2E391K080AA	C1608C0G2A391K080AA
			± 5%		C1608C0G2E391J080AA	C1608C0G2A391J080AA	
	2012	0.60 ± 0.15	± 10%		C2012C0G2W391K060AA		
		± 5%		C2012C0G2W391J060AA			
470 pF	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			
560 pF	1005	0.50 ± 0.05	± 10%				C1005C0G2A561K050BC
			± 5%				C1005C0G2A561J050BC
	1608	0.80 ± 0.10	± 10%			C1608C0G2E561K080AA	C1608C0G2A561K080AA
			± 5%		C1608C0G2E561J080AA	C1608C0G2A561J080AA	
	2012	0.60 ± 0.15	± 10%		C2012C0G2W561K060AA		
		± 5%		C2012C0G2W561J060AA			
680 pF	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			
820 pF	1005	0.50 ± 0.05	± 10%				C1005C0G2A821K050BC
			± 5%				C1005C0G2A821J050BC
	1608	0.80 ± 0.10	± 10%			C1608C0G2E821K080AA	C1608C0G2A821K080AA
			± 5%		C1608C0G2E821J080AA	C1608C0G2A821J080AA	
	2012	0.60 ± 0.15	± 10%		C2012C0G2W821K060AA		
		± 5%		C2012C0G2W821J060AA			



## Capacitance Range Table

### Class 1 (Temperature Compensating)

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

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number				
				Rated Voltage Edc: 630V	Rated Voltage Edc: 450V	Rated Voltage Edc: 250V	Rated Voltage Edc: 100V	
1 nF	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				
1.2 nF	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				
1.5 nF	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%			C2012C0G2E152K085AA		
			± 5%			C2012C0G2E152J085AA		
3216	1.15 ± 0.15	± 10%	C3216C0G2J152K115AA					
			± 5%	C3216C0G2J152J115AA				
1.8 nF	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				
2.2 nF	1608	0.80 ± 0.10	± 10%				C1608C0G2A222K080AA	
			± 5%				C1608C0G2A222J080AA	
	2012	0.80 +0.15/-0.1	± 10%			C1608C0G2E222K080AA		
			± 5%			C1608C0G2E222J080AA		
		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				
2.7 nF	1608	0.80 +0.15/-0.1	± 10%				C1608C0G2A272K080AA	
			± 5%				C1608C0G2A272J080AA	
	2012	1.25 ± 0.20	± 10%			C2012C0G2W272K125AA	C2012C0G2E272K125AA	C2012C0G2A272K125AA
			± 5%			C2012C0G2W272J125AA	C2012C0G2E272J125AA	C2012C0G2A272J125AA
		1.60 ± 0.20	± 10%					
			± 5%					
3216	1.60 ± 0.20	± 10%	C3216C0G2J272K160AA					
			± 5%	C3216C0G2J272J160AA				
3.3 nF	1608	0.80 +0.15/-0.1	± 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		



## Capacitance Range Table

### Class 1 (Temperature Compensating)

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

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number			
				Rated Voltage Edc: 630V	Rated Voltage Edc: 450V	Rated Voltage Edc: 250V	Rated Voltage Edc: 100V
3.9 nF	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
	3216	0.85 ± 0.15	± 10%	C3216C0G2J392K085AA			
			± 5%	C3216C0G2J392J085AA			
	3216	1.15 ± 0.15	± 10%			C3216C0G2E392K115AA	
			± 5%			C3216C0G2E392J115AA	
3225	1.25 ± 0.20	± 10%	C3225C0G2J392K125AA				
		± 5%	C3225C0G2J392J125AA				
4.7 nF	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
	3216	1.15 ± 0.15	± 10%			C3216C0G2E472K115AA	
			± 5%			C3216C0G2E472J115AA	
	3225	1.60 ± 0.20	± 10%	C3225C0G2J472K160AA			
			± 5%	C3225C0G2J472J160AA			
5.6 nF	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
	3216	1.15 ± 0.15	± 10%	C3216C0G2J562K115AA		C3216C0G2E562K115AA	
			± 5%	C3216C0G2J562J115AA		C3216C0G2E562J115AA	
	3225	1.60 ± 0.20	± 10%	C3225C0G2J562K160AA			
			± 5%	C3225C0G2J562J160AA			
6.8 nF	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
	3216	1.60 ± 0.20	± 10%			C3216C0G2E682K160AA	
			± 5%			C3216C0G2E682J160AA	
	3225	2.00 ± 0.20	± 10%	C3225C0G2J682K200AA			
			± 5%	C3225C0G2J682J200AA			
8.2 nF	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
	3216	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				
10 nF	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
3216	1.60 ± 0.20	± 10%	C3216C0G2J103K160AA	C3216C0G2W103K160AA			
		± 5%	C3216C0G2J103J160AA	C3216C0G2W103J160AA			



## Capacitance Range Table

### Class 1 (Temperature Compensating)

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

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number			
				Rated Voltage Edc: 630V	Rated Voltage Edc: 450V	Rated Voltage Edc: 250V	Rated Voltage Edc: 100V
10 nF	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			
15 nF	2012	0.85 ± 0.15	± 10%	C2012C0G2A153K085AC			
			± 5%	C2012C0G2A153J085AC			
	1.15 ± 0.15	± 10%	C3216C0G2A153K115AA				
		± 5%	C3216C0G2A153J115AA				
	3216	1.60 ± 0.20	± 10%	C3216C0G2E153K160AA			
			± 5%	C3216C0G2E153J160AA			
1.60 +0.3/-0.1	± 10%	C3216C0G2W153K160AA					
	± 5%	C3216C0G2W153J160AA					
22 nF	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				
33 nF	4532	2.50 ± 0.30	± 10%	C4532C0G2J153K250KA			
			± 5%	C4532C0G2J153J250KA			
	2012	1.25 ± 0.20	± 10%	C2012C0G2A223K125AC			
			± 5%	C2012C0G2A223J125AC			
	3216	1.60 ± 0.20	± 10%	C3216C0G2A223K160AA			
			± 5%	C3216C0G2A223J160AA			
1.60 +0.3/-0.1	± 10%	C3216C0G2E223K160AA					
	± 5%	C3216C0G2E223J160AA					
47 nF	3225	1.60 ± 0.20	± 10%	C3225C0G2E223K160AA			
			± 5%	C3225C0G2E223J160AA			
	2.30 ± 0.20	± 10%	C3225C0G2J223K230AA				
		± 5%	C3225C0G2J223J230AA				
	4532	1.60 ± 0.20	± 10%	C4532C0G2E223K160KA			
			± 5%	C4532C0G2E223J160KA			
3.20 ± 0.30	± 10%	C4532C0G2J223K320KA					
	± 5%	C4532C0G2J223J320KA					
100 nF	2012	1.25 ± 0.20	± 10%	C2012C0G2A333K125AC			
			± 5%	C2012C0G2A333J125AC			
	3216	1.60 +0.3/-0.1	± 10%	C3216C0G2A333K160AA			
			± 5%	C3216C0G2A333J160AA			
	2.00 ± 0.20	± 10%	C3225C0G2A333K200AA				
		± 5%	C3225C0G2A333J200AA				
3225	2.30 ± 0.20	± 10%	C3225C0G2E333K230AA				
		± 5%	C3225C0G2E333J230AA				
150 nF	4532	2.50 ± 0.30	± 10%	C3225C0G2J333K250AA			
			± 5%	C3225C0G2J333J250AA			
	C3225C0G2W333K250AA	C3225C0G2W333J250AA	± 10%	C4532C0G2E333K200KA			
			± 5%	C4532C0G2E333J200KA			
	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					
220 nF	4532	2.00 ± 0.20	± 10%	C4532C0G2A473K200KA			
			± 5%	C4532C0G2A473J200KA			
	3216	1.15 ± 0.15	± 10%	C4532C0G2W473K230KA			
			± 5%	C4532C0G2W473J230KA			
	3225	2.30 ± 0.20	± 10%	C4532C0G2J473K320KA			
			± 5%	C4532C0G2J473J320KA			
3.20 ± 0.30	± 10%	C4532C0G2E473K320KA					
	± 5%	C4532C0G2E473J320KA					





## Capacitance Range Table

### Class 1 (Temperature Compensating)

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

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number			
				Rated Voltage Edc: 630V	Rated Voltage Edc: 450V	Rated Voltage Edc: 250V	Rated Voltage Edc: 100V
68 nF	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				
100 nF	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	C5750C0G2W104J280KA		
± 5%			C5750C0G2J104J280KC	C5750C0G2W104K280KA			
150 nF	5750	2.30 ± 0.20	± 10%			C5750C0G2E154K230KN	C5750C0G2A154K230KA
			± 5%			C5750C0G2E154J230KN	C5750C0G2A154J230KA



## Capacitance Range Table

### Class 1 (Temperature Compensating)

Temperature Characteristics: CH (-25 to +85°C, 0±60 ppm/°C)

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number			
				Rated Voltage Edc: 630V	Rated Voltage Edc: 450V	Rated Voltage Edc: 250V	Rated Voltage Edc: 100V
1 pF	1608	0.80 ± 0.10	± 0.25pF				C1608CH2A010C080AA
1.5 pF	1608	0.80 ± 0.10	± 0.25pF				C1608CH2A1R5C080AA
2 pF	1608	0.80 ± 0.10	± 0.25pF				C1608CH2A020C080AA
2.2 pF	1608	0.80 ± 0.10	± 0.25pF				C1608CH2A2R2C080AA
3 pF	1608	0.80 ± 0.10	± 0.25pF				C1608CH2A030C080AA
3.3 pF	1608	0.80 ± 0.10	± 0.25pF				C1608CH2A3R3C080AA
4 pF	1608	0.80 ± 0.10	± 0.25pF				C1608CH2A040C080AA
4.7 pF	1608	0.80 ± 0.10	± 0.25pF				C1608CH2A4R7C080AA
5 pF	1608	0.80 ± 0.10	± 0.25pF				C1608CH2A050C080AA
6 pF	1608	0.80 ± 0.10	± 0.50pF				C1608CH2A060D080AA
6.8 pF	1608	0.80 ± 0.10	± 0.50pF				C1608CH2A6R8D080AA
7 pF	1608	0.80 ± 0.10	± 0.50pF				C1608CH2A070D080AA
8 pF	1608	0.80 ± 0.10	± 0.50pF				C1608CH2A080D080AA
9 pF	1608	0.80 ± 0.10	± 0.50pF				C1608CH2A090D080AA
10 pF	1608	0.80 ± 0.10	± 0.50pF				C1608CH2A100D080AA
12 pF	1608	0.80 ± 0.10	± 5%				C1608CH2A120J080AA
15 pF	1608	0.80 ± 0.10	± 5%				C1608CH2A150J080AA
18 pF	1608	0.80 ± 0.10	± 5%				C1608CH2A180J080AA
22 pF	1608	0.80 ± 0.10	± 5%				C1608CH2A220J080AA
27 pF	1608	0.80 ± 0.10	± 5%				C1608CH2A270J080AA
33 pF	1608	0.80 ± 0.10	± 5%				C1608CH2A330J080AA
39 pF	1608	0.80 ± 0.10	± 5%				C1608CH2A390J080AA
47 pF	1608	0.80 ± 0.10	± 5%				C1608CH2A470J080AA
56 pF	1608	0.80 ± 0.10	± 5%				C1608CH2A560J080AA
68 pF	1608	0.80 ± 0.10	± 5%				C1608CH2A680J080AA
82 pF	1608	0.80 ± 0.10	± 5%				C1608CH2A820J080AA
100 pF	1005	0.50 ± 0.05	± 10%				C1005CH2A101K050BA
			± 5%				C1005CH2A101J050BA
	1608	0.80 ± 0.10	± 10%			C1608CH2E101K080AA	C1608CH2A101K080AA
			± 5%		C1608CH2E101J080AA	C1608CH2A101J080AA	
	2012	0.60 ± 0.15	± 10%		C2012CH2W101K060AA		
			± 5%		C2012CH2W101J060AA		
3216	0.60 ± 0.15	± 10%	C3216CH2J101K060AA				
		± 5%	C3216CH2J101J060AA				
120 pF	1005	0.50 ± 0.05	± 10%				C1005CH2A121K050BA
			± 5%				C1005CH2A121J050BA
	1608	0.80 ± 0.10	± 10%			C1608CH2E121K080AA	C1608CH2A121K080AA
			± 5%		C1608CH2E121J080AA	C1608CH2A121J080AA	
	2012	0.60 ± 0.15	± 10%		C2012CH2W121K060AA		
			± 5%		C2012CH2W121J060AA		
3216	0.60 ± 0.15	± 10%	C3216CH2J121K060AA				
		± 5%	C3216CH2J121J060AA				
150 pF	1005	0.50 ± 0.05	± 10%				C1005CH2A151K050BA
			± 5%				C1005CH2A151J050BA
	1608	0.80 ± 0.10	± 10%			C1608CH2E151K080AA	C1608CH2A151K080AA
			± 5%		C1608CH2E151J080AA	C1608CH2A151J080AA	
	2012	0.60 ± 0.15	± 10%		C2012CH2W151K060AA		
			± 5%		C2012CH2W151J060AA		
3216	0.60 ± 0.15	± 10%	C3216CH2J151K060AA				
		± 5%	C3216CH2J151J060AA				
180 pF	1005	0.50 ± 0.05	± 10%				C1005CH2A181K050BA
			± 5%				C1005CH2A181J050BA
	1608	0.80 ± 0.10	± 10%			C1608CH2E181K080AA	C1608CH2A181K080AA
			± 5%		C1608CH2E181J080AA	C1608CH2A181J080AA	
	2012	0.60 ± 0.15	± 10%		C2012CH2W181K060AA		
			± 5%		C2012CH2W181J060AA		
3216	0.60 ± 0.15	± 10%	C3216CH2J181K060AA				
		± 5%	C3216CH2J181J060AA				
220 pF	1005	0.50 ± 0.05	± 10%				C1005CH2A221K050BA
			± 5%				C1005CH2A221J050BA
	1608	0.80 ± 0.10	± 10%			C1608CH2E221K080AA	C1608CH2A221K080AA
			± 5%		C1608CH2E221J080AA	C1608CH2A221J080AA	



## Capacitance Range Table

### Class 1 (Temperature Compensating)

Temperature Characteristics: CH (-25 to +85°C, 0±60 ppm/°C)

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number			
				Rated Voltage Edc: 630V	Rated Voltage Edc: 450V	Rated Voltage Edc: 250V	Rated Voltage Edc: 100V
220 pF	2012	0.60 ± 0.15	± 10%		C2012CH2W221K060AA		
			± 5%		C2012CH2W221J060AA		
	3216	0.60 ± 0.15	± 10%	C3216CH2J221K060AA			
			± 5%	C3216CH2J221J060AA			
270 pF	1005	0.50 ± 0.05	± 10%			C1005CH2A271K050BA	
			± 5%			C1005CH2A271J050BA	
	1608	0.80 ± 0.10	± 10%		C1608CH2E271K080AA	C1608CH2A271K080AA	
			± 5%		C1608CH2E271J080AA	C1608CH2A271J080AA	
	2012	0.60 ± 0.15	± 10%		C2012CH2W271K060AA		
			± 5%		C2012CH2W271J060AA		
3216	0.60 ± 0.15	± 10%	C3216CH2J271K060AA				
		± 5%	C3216CH2J271J060AA				
330 pF	1005	0.50 ± 0.05	± 10%			C1005CH2A331K050BA	
			± 5%			C1005CH2A331J050BA	
	1608	0.80 ± 0.10	± 10%		C1608CH2E331K080AA	C1608CH2A331K080AA	
			± 5%		C1608CH2E331J080AA	C1608CH2A331J080AA	
	2012	0.60 ± 0.15	± 10%		C2012CH2W331K060AA		
			± 5%		C2012CH2W331J060AA		
3216	0.60 ± 0.15	± 10%	C3216CH2J331K060AA				
		± 5%	C3216CH2J331J060AA				
390 pF	1005	0.50 ± 0.05	± 10%			C1005CH2A391K050BA	
			± 5%			C1005CH2A391J050BA	
	1608	0.80 ± 0.10	± 10%		C1608CH2E391K080AA	C1608CH2A391K080AA	
			± 5%		C1608CH2E391J080AA	C1608CH2A391J080AA	
	2012	0.60 ± 0.15	± 10%		C2012CH2W391K060AA		
			± 5%		C2012CH2W391J060AA		
3216	0.60 ± 0.15	± 10%	C3216CH2J391K060AA				
		± 5%	C3216CH2J391J060AA				
470 pF	1005	0.50 ± 0.05	± 10%			C1005CH2A471K050BA	
			± 5%			C1005CH2A471J050BA	
	1608	0.80 ± 0.10	± 10%		C1608CH2E471K080AA	C1608CH2A471K080AA	
			± 5%		C1608CH2E471J080AA	C1608CH2A471J080AA	
	2012	0.60 ± 0.15	± 10%		C2012CH2W471K060AA		
			± 5%		C2012CH2W471J060AA		
3216	0.85 ± 0.15	± 10%	C3216CH2J471K085AA				
		± 5%	C3216CH2J471J085AA				
560 pF	1005	0.50 ± 0.05	± 10%			C1005CH2A561K050BC	
			± 5%			C1005CH2A561J050BC	
	1608	0.80 ± 0.10	± 10%		C1608CH2E561K080AA	C1608CH2A561K080AA	
			± 5%		C1608CH2E561J080AA	C1608CH2A561J080AA	
	2012	0.60 ± 0.15	± 10%		C2012CH2W561K060AA		
			± 5%		C2012CH2W561J060AA		
3216	0.85 ± 0.15	± 10%	C3216CH2J561K085AA				
		± 5%	C3216CH2J561J085AA				
680 pF	1005	0.50 ± 0.05	± 10%			C1005CH2A681K050BC	
			± 5%			C1005CH2A681J050BC	
	1608	0.80 ± 0.10	± 10%		C1608CH2E681K080AA	C1608CH2A681K080AA	
			± 5%		C1608CH2E681J080AA	C1608CH2A681J080AA	
	2012	0.60 ± 0.15	± 10%		C2012CH2W681K060AA		
			± 5%		C2012CH2W681J060AA		
3216	0.85 ± 0.15	± 10%	C3216CH2J681K085AA				
		± 5%	C3216CH2J681J085AA				
820 pF	1005	0.50 ± 0.05	± 10%			C1005CH2A821K050BC	
			± 5%			C1005CH2A821J050BC	
	1608	0.80 ± 0.10	± 10%		C1608CH2E821K080AA	C1608CH2A821K080AA	
			± 5%		C1608CH2E821J080AA	C1608CH2A821J080AA	
	2012	0.60 ± 0.15	± 10%		C2012CH2W821K060AA	C2012CH2E821K060AA	
			± 5%		C2012CH2W821J060AA	C2012CH2E821J060AA	
3216	0.85 ± 0.15	± 10%	C3216CH2J821K085AA				
		± 5%	C3216CH2J821J085AA				



## Capacitance Range Table

### Class 1 (Temperature Compensating)

Temperature Characteristics: CH (-25 to +85°C, 0±60 ppm/°C)

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number				
				Rated Voltage Edc: 630V	Rated Voltage Edc: 450V	Rated Voltage Edc: 250V	Rated Voltage Edc: 100V	
1 nF	1005	0.50 ± 0.05	± 10%				C1005CH2A102K050BC	
			± 5%				C1005CH2A102J050BC	
	1608	0.80 ± 0.10	± 10%			C1608CH2E102K080AA	C1608CH2A102K080AA	
			± 5%		C1608CH2E102J080AA	C1608CH2A102J080AA		
	2012	0.60 ± 0.15	± 10%		C2012CH2W102K060AA			
			± 5%		C2012CH2W102J060AA		C2012CH2A102J060AA	
		0.85 ± 0.15	± 10%			C2012CH2E102K085AA		
			± 5%			C2012CH2E102J085AA		
	3216	0.85 ± 0.15	± 10%	C3216CH2J102K085AA				
			± 5%	C3216CH2J102J085AA				
1.2 nF	1608	0.80 ± 0.10	± 10%			C1608CH2E122K080AA	C1608CH2A122K080AA	
			± 5%			C1608CH2E122J080AA	C1608CH2A122J080AA	
	2012	0.60 ± 0.15	± 10%		C2012CH2W122K060AA			
			± 5%		C2012CH2W122J060AA		C2012CH2A122J060AA	
	0.85 ± 0.15	± 10%			C2012CH2E122K085AA			
		± 5%			C2012CH2E122J085AA			
	3216	0.85 ± 0.15	± 10%	C3216CH2J122K085AA				
			± 5%	C3216CH2J122J085AA				
	1.5 nF	1608	0.80 ± 0.10	± 10%			C1608CH2E152K080AA	C1608CH2A152K080AA
				± 5%			C1608CH2E152J080AA	C1608CH2A152J080AA
2012		0.60 ± 0.15	± 10%				C2012CH2A152K060AA	
			± 5%				C2012CH2A152J060AA	
0.85 ± 0.15		± 10%		C2012CH2W152K085AA	C2012CH2E152K085AA			
		± 5%		C2012CH2W152J085AA	C2012CH2E152J085AA			
3216		1.15 ± 0.15	± 10%	C3216CH2J152K115AA				
			± 5%	C3216CH2J152J115AA				
1.8 nF		1608	0.80 ± 0.10	± 10%			C1608CH2E182K080AA	C1608CH2A182K080AA
				± 5%			C1608CH2E182J080AA	C1608CH2A182J080AA
	2012	0.85 ± 0.15	± 10%		C2012CH2W182K085AA		C2012CH2A182K085AA	
			± 5%		C2012CH2W182J085AA		C2012CH2A182J085AA	
	1.25 ± 0.20	± 10%			C2012CH2E182K125AA			
		± 5%			C2012CH2E182J125AA			
	3216	1.15 ± 0.15	± 10%	C3216CH2J182K115AA				
			± 5%	C3216CH2J182J115AA				
	2.2 nF	1608	0.80 ± 0.10	± 10%				C1608CH2A222K080AA
				± 5%				C1608CH2A222J080AA
0.80 ± 0.15/-0.1		± 10%				C1608CH2E222K080AA		
		± 5%				C1608CH2E222J080AA		
2012		0.85 ± 0.15	± 10%		C2012CH2W222K085AA		C2012CH2A222K085AA	
			± 5%		C2012CH2W222J085AA		C2012CH2A222J085AA	
1.25 ± 0.20		± 10%				C2012CH2E222K125AA		
		± 5%				C2012CH2E222J125AA		
3216		1.15 ± 0.15	± 10%	C3216CH2J222K115AA				
			± 5%	C3216CH2J222J115AA				
2.7 nF	1608	0.80 ± 0.15/-0.1	± 10%				C1608CH2A272K080AA	
			± 5%				C1608CH2A272J080AA	
	2012	1.25 ± 0.20	± 10%		C2012CH2W272K125AA	C2012CH2E272K125AA	C2012CH2A272K125AA	
			± 5%		C2012CH2W272J125AA	C2012CH2E272J125AA	C2012CH2A272J125AA	
	1.60 ± 0.20	± 10%		C3216CH2J272K160AA				
		± 5%		C3216CH2J272J160AA				
	3216	1.60 ± 0.20	± 10%					
			± 5%					
	3.3 nF	1608	0.80 ± 0.15/-0.1	± 10%				C1608CH2A332K080AA
				± 5%				C1608CH2A332J080AA
2012		0.85 ± 0.15	± 10%			C2012CH2E332K085AA		
			± 5%			C2012CH2E332J085AA		
1.25 ± 0.20		± 10%		C2012CH2W332K125AA		C2012CH2A332K125AA		
		± 5%		C2012CH2W332J125AA		C2012CH2A332J125AA		
0.85 ± 0.15		± 10%			C3216CH2E332K085AA			
		± 5%			C3216CH2E332J085AA			
3216		1.60 ± 0.20	± 10%	C3216CH2J332K160AA				
			± 5%	C3216CH2J332J160AA				



## Capacitance Range Table

### Class 1 (Temperature Compensating)

Temperature Characteristics: CH (-25 to +85°C, 0±60 ppm/°C)

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number			
				Rated Voltage Edc: 630V	Rated Voltage Edc: 450V	Rated Voltage Edc: 250V	Rated Voltage Edc: 100V
3.9 nF	1608	0.80 ± 0.10	± 10%				C1608CH2A392K080AC
			± 5%				C1608CH2A392J080AC
	2012	1.25 ± 0.20	± 10%		C2012CH2W392K125AA	C2012CH2E392K125AA	C2012CH2A392K125AA
			± 5%		C2012CH2W392J125AA	C2012CH2E392J125AA	C2012CH2A392J125AA
		0.60 ± 0.15	± 10%				C3216CH2A392K060AA
			± 5%				C3216CH2A392J060AA
	3216	0.85 ± 0.15	± 10%	C3216CH2J392K085AA			
			± 5%	C3216CH2J392J085AA			
		1.15 ± 0.15	± 10%			C3216CH2E392K115AA	
			± 5%			C3216CH2E392J115AA	
3225	1.25 ± 0.20	± 10%	C3225CH2J392K125AA				
		± 5%	C3225CH2J392J125AA				
4.7 nF	1608	0.80 ± 0.10	± 10%				C1608CH2A472K080AC
			± 5%				C1608CH2A472J080AC
	2012	1.25 ± 0.20	± 10%		C2012CH2W472K125AA	C2012CH2E472K125AA	C2012CH2A472K125AA
			± 5%		C2012CH2W472J125AA	C2012CH2E472J125AA	C2012CH2A472J125AA
	3216	0.85 ± 0.15	± 10%	C3216CH2J472K085AA			C3216CH2A472K085AA
			± 5%	C3216CH2J472J085AA			C3216CH2A472J085AA
		1.15 ± 0.15	± 10%			C3216CH2E472K115AA	
			± 5%			C3216CH2E472J115AA	
	3225	1.60 ± 0.20	± 10%	C3225CH2J472K160AA			
			± 5%	C3225CH2J472J160AA			
5.6 nF	1608	0.80 ± 0.10	± 10%				C1608CH2A562K080AC
			± 5%				C1608CH2A562J080AC
	2012	1.25 ± 0.20	± 10%		C2012CH2W562K125AA	C2012CH2E562K125AA	C2012CH2A562K125AA
			± 5%		C2012CH2W562J125AA	C2012CH2E562J125AA	C2012CH2A562J125AA
	3216	0.85 ± 0.15	± 10%	C3216CH2J562K115AA		C3216CH2E562K115AA	C3216CH2A562K085AA
			± 5%	C3216CH2J562J115AA		C3216CH2E562J115AA	C3216CH2A562J085AA
		1.15 ± 0.15	± 10%			C3216CH2E562K115AA	
			± 5%			C3216CH2E562J115AA	
	3225	1.60 ± 0.20	± 10%	C3225CH2J562K160AA			
			± 5%	C3225CH2J562J160AA			
6.8 nF	1608	0.80 ± 0.10	± 10%				C1608CH2A682K080AC
			± 5%				C1608CH2A682J080AC
	2012	1.25 ± 0.20	± 10%			C2012CH2E682K125AA	C2012CH2A682K125AA
			± 5%			C2012CH2E682J125AA	C2012CH2A682J125AA
	3216	1.15 ± 0.15	± 10%	C3216CH2J682K115AA	C3216CH2W682K115AA		C3216CH2A682K115AA
			± 5%	C3216CH2J682J115AA	C3216CH2W682J115AA		C3216CH2A682J115AA
		1.60 ± 0.20	± 10%			C3216CH2E682K160AA	
			± 5%			C3216CH2E682J160AA	
	3225	2.00 ± 0.20	± 10%	C3225CH2J682K200AA			
			± 5%	C3225CH2J682J200AA			
8.2 nF	1608	0.80 ± 0.10	± 10%				C1608CH2A822K080AC
			± 5%				C1608CH2A822J080AC
	2012	1.25 ± 0.20	± 10%			C2012CH2E822K125AA	C2012CH2A822K125AA
			± 5%			C2012CH2E822J125AA	C2012CH2A822J125AA
	3216	1.15 ± 0.15	± 10%		C3216CH2W822K115AA		C3216CH2A822K115AA
			± 5%	C3216CH2W822J115AA		C3216CH2A822J115AA	
		1.60 ± 0.20	± 10%	C3216CH2J822K160AA		C3216CH2E822K160AA	
			± 5%	C3216CH2J822J160AA		C3216CH2E822J160AA	
	3225	1.25 ± 0.20	± 10%	C3225CH2J822K125AA			
			± 5%	C3225CH2J822J125AA			
4532	1.60 ± 0.20	± 10%	C4532CH2J822K160KA				
		± 5%	C4532CH2J822J160KA				
10 nF	1608	0.80 ± 0.10	± 10%				C1608CH2A103K080AC
			± 5%				C1608CH2A103J080AC
	2012	1.25 ± 0.20	± 10%			C2012CH2E103K125AA	C2012CH2A103K125AA
			± 5%			C2012CH2E103J125AA	C2012CH2A103J125AA
		1.15 ± 0.15	± 10%			C3216CH2E103K115AA	C3216CH2A103K115AA
			± 5%			C3216CH2E103J115AA	C3216CH2A103J115AA
	3216	1.60 ± 0.20	± 10%	C3216CH2J103K160AA	C3216CH2W103K160AA		
			± 5%	C3216CH2J103J160AA	C3216CH2W103J160AA		



## Capacitance Range Table

### Class 1 (Temperature Compensating)

Temperature Characteristics: CH (-25 to +85°C, 0±60 ppm/°C)

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number			
				Rated Voltage Edc: 630V	Rated Voltage Edc: 450V	Rated Voltage Edc: 250V	Rated Voltage Edc: 100V
10 nF	3225	1.25 ± 0.20	± 10%	C3225CH2J103K125AA			
			± 5%	C3225CH2J103J125AA			
	1.60 ± 0.20	± 10%	C3225CH2E103K160AA				
		± 5%	C3225CH2E103J160AA				
	4532	1.60 ± 0.20	± 10%	C4532CH2J103K160KA			
			± 5%	C4532CH2J103J160KA			
15 nF	2012	0.85 ± 0.15	± 10%	C2012CH2A153K085AC			
			± 5%	C2012CH2A153J085AC			
	1.15 ± 0.15	± 10%	C3216CH2A153K115AA				
		± 5%	C3216CH2A153J115AA				
	3216	1.60 ± 0.20	± 10%	C3216CH2E153K160AA			
			± 5%	C3216CH2E153J160AA			
1.60 +0.3/-0.1	± 10%	C3216CH2W153K160AA					
	± 5%	C3216CH2W153J160AA					
22 nF	3225	1.25 ± 0.20	± 10%	C3225CH2A153K125AA			
			± 5%	C3225CH2A153J125AA			
	1.60 ± 0.20	± 10%	C3225CH2J153K160AA				
		± 5%	C3225CH2J153J160AA				
	2.00 ± 0.20	± 10%	C3225CH2E153K200AA				
		± 5%	C3225CH2E153J200AA				
33 nF	4532	2.50 ± 0.30	± 10%	C4532CH2J153K250KA			
			± 5%	C4532CH2J153J250KA			
	2012	1.25 ± 0.20	± 10%	C2012CH2A223K125AC			
			± 5%	C2012CH2A223J125AC			
	3216	1.60 ± 0.20	± 10%	C3216CH2A223K160AA			
			± 5%	C3216CH2A223J160AA			
1.60 +0.3/-0.1	± 10%	C3216CH2E223K160AA					
	± 5%	C3216CH2E223J160AA					
47 nF	3225	1.60 ± 0.20	± 10%	C3225CH2E223K160AA			
			± 5%	C3225CH2E223J160AA			
	2.30 ± 0.20	± 10%	C3225CH2J223K230AA				
		± 5%	C3225CH2J223J230AA				
	4532	1.60 ± 0.20	± 10%	C4532CH2E223K160KA			
			± 5%	C4532CH2E223J160KA			
3.20 ± 0.30	± 10%	C4532CH2J223K320KA					
	± 5%	C4532CH2J223J320KA					
100 nF	2012	1.25 ± 0.20	± 10%	C2012CH2A333K125AC			
			± 5%	C2012CH2A333J125AC			
	3216	1.60 +0.3/-0.1	± 10%	C3216CH2A333K160AA			
			± 5%	C3216CH2A333J160AA			
	2.00 ± 0.20	± 10%	C3225CH2A333K200AA				
		± 5%	C3225CH2A333J200AA				
3225	2.30 ± 0.20	± 10%	C3225CH2E333K230AA				
		± 5%	C3225CH2E333J230AA				
220 nF	4532	2.00 ± 0.20	± 10%	C4532CH2E333K200KA			
			± 5%	C4532CH2E333J200KA			
	3216	1.15 ± 0.15	± 10%	C3216CH2A473K115AC			
			± 5%	C3216CH2A473J115AC			
	2.30 ± 0.20	± 10%	C3225CH2A473K230AA				
		± 5%	C3225CH2A473J230AA				
2.50 ± 0.30	± 10%	C3225CH2E473K250AA					
	± 5%	C3225CH2E473J250AA					
330 nF	4532	2.00 ± 0.20	± 10%	C4532CH2A473K200KA			
			± 5%	C4532CH2A473J200KA			
	2.30 ± 0.20	± 10%	C4532CH2W473K230KA				
		± 5%	C4532CH2W473J230KA				
	3.20 ± 0.30	± 10%	C4532CH2J473K320KA				
		± 5%	C4532CH2J473J320KA				



## Capacitance Range Table

### Class 1 (Temperature Compensating)

Temperature Characteristics: CH (-25 to +85°C, 0±60 ppm/°C)

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number			
				Rated Voltage Edc: 630V	Rated Voltage Edc: 450V	Rated Voltage Edc: 250V	Rated Voltage Edc: 100V
68 nF	3216	1.60 ± 0.20	± 10%				C3216CH2A683K160AC
			± 5%				C3216CH2A683J160AC
	3225	2.30 ± 0.20	± 10%				C3225CH2A683K230AA
			± 5%				C3225CH2A683J230AA
	4532	2.30 ± 0.20	± 10%			C4532CH2E683K230KN	
			± 5%			C4532CH2E683J230KN	
		2.50 ± 0.30	± 10%				C4532CH2A683K250KA
			± 5%				C4532CH2A683J250KA
	3.20 ± 0.30	± 10%		C4532CH2W683K320KA			
		± 5%		C4532CH2W683J320KA			
5750	2.30 ± 0.20	± 10%	C5750CH2J683K230KC				
		± 5%	C5750CH2J683J230KC				
100 nF	3216	1.60 ± 0.20	± 10%				C3216CH2A104K160AC
			± 5%				C3216CH2A104J160AC
	4532	3.20 ± 0.30	± 10%			C4532CH2E104K320KN	C4532CH2A104K320KA
			± 5%			C4532CH2E104J320KN	C4532CH2A104J320KA
	5750	2.80 ± 0.30	± 10%	C5750CH2J104K280KC	C5750CH2W104J280KA		
			± 5%	C5750CH2J104J280KC	C5750CH2W104K280KA		
150 nF	5750	2.30 ± 0.20	± 10%			C5750CH2E154K230KN	C5750CH2A154K230KA
			± 5%			C5750CH2E154J230KN	C5750CH2A154J230KA

### Class 2 (Temperature Stable)

Temperature Characteristics: JB (-25 to +85°C, ±10%)

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number		
				Rated Voltage Edc: 630V	Rated Voltage Edc: 250V	Rated Voltage Edc: 100V
1 nF	1608	0.80 ± 0.10	± 10%			C1608JB2A102K080AA
			± 20%			C1608JB2A102M080AA
	2012	0.85 ± 0.15	± 10%		C2012JB2E102K085AA	C2012JB2A102K085AA
			± 20%		C2012JB2E102M085AA	C2012JB2A102M085AA
3216	1.15 ± 0.15	± 10%	C3216JB2J102K115AA			
		± 20%	C3216JB2J102M115AA			
1.5 nF	1608	0.80 ± 0.10	± 10%			C1608JB2A152K080AA
			± 20%			C1608JB2A152M080AA
	2012	0.85 ± 0.15	± 10%		C2012JB2E152K085AA	C2012JB2A152K085AA
			± 20%		C2012JB2E152M085AA	C2012JB2A152M085AA
3216	1.15 ± 0.15	± 10%	C3216JB2J152K115AA			
		± 20%	C3216JB2J152M115AA			
2.2 nF	1608	0.80 ± 0.10	± 10%			C1608JB2A222K080AA
			± 20%			C1608JB2A222M080AA
	2012	0.85 ± 0.15	± 10%		C2012JB2E222K085AA	C2012JB2A222K085AA
			± 20%		C2012JB2E222M085AA	C2012JB2A222M085AA
3216	1.15 ± 0.15	± 10%	C3216JB2J222K115AA			
		± 20%	C3216JB2J222M115AA			
3.3 nF	1608	0.80 ± 0.10	± 10%			C1608JB2A332K080AA
			± 20%			C1608JB2A332M080AA
	2012	0.85 ± 0.15	± 10%		C2012JB2E332K085AA	C2012JB2A332K085AA
			± 20%		C2012JB2E332M085AA	C2012JB2A332M085AA
3216	1.15 ± 0.15	± 10%	C3216JB2J332K115AA			
		± 20%	C3216JB2J332M115AA			
4.7 nF	1608	0.80 ± 0.10	± 10%			C1608JB2A472K080AA
			± 20%			C1608JB2A472M080AA
	2012	0.85 ± 0.15	± 10%		C2012JB2E472K085AA	C2012JB2A472K085AA
			± 20%		C2012JB2E472M085AA	C2012JB2A472M085AA
3216	1.15 ± 0.15	± 10%	C3216JB2J472K115AA			
		± 20%	C3216JB2J472M115AA			
6.8 nF	1608	0.80 ± 0.10	± 10%			C1608JB2A682K080AA
			± 20%			C1608JB2A682M080AA
	2012	0.85 ± 0.15	± 10%			C2012JB2A682K085AA
			± 20%			C2012JB2A682M085AA



## Capacitance Range Table

### Class 2 (Temperature Stable)

Temperature Characteristics: JB (-25 to +85°C, ±10%)

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number		
				Rated Voltage Edc: 630V	Rated Voltage Edc: 250V	Rated Voltage Edc: 100V
6.8 nF	2012	1.25 ± 0.20	± 10%		C2012JB2E682K125AA	
			± 20%		C2012JB2E682M125AA	
	3216	1.15 ± 0.15	± 10%	C3216JB2J682K115AA		
			± 20%	C3216JB2J682M115AA		
10 nF	1608	0.80 ± 0.10	± 10%			C1608JB2A103K080AA
			± 20%			C1608JB2A103M080AA
	2012	0.85 ± 0.15	± 10%			C2012JB2A103K085AA
			± 20%			C2012JB2A103M085AA
	3216	1.15 ± 0.15	± 10%		C2012JB2E103K125AA	
			± 20%		C2012JB2E103M125AA	
15 nF	1608	0.80 ± 0.10	± 10%			C1608JB2A153K080AA
			± 20%			C1608JB2A153M080AA
	2012	1.25 ± 0.20	± 10%		C2012JB2E153K125AA	C2012JB2A153K125AA
			± 20%		C2012JB2E153M125AA	C2012JB2A153M125AA
	3216	1.15 ± 0.15	± 10%		C3216JB2E153K115AA	
			± 20%		C3216JB2E153M115AA	
	3216	1.30 ± 0.20	± 10%	C3216JB2J153K130AA		
			± 20%	C3216JB2J153M130AA		
22 nF	1608	0.80 ± 0.10	± 10%			C1608JB2A223K080AA
			± 20%			C1608JB2A223M080AA
	2012	1.25 ± 0.20	± 10%		C2012JB2E223K125AA	C2012JB2A223K125AA
			± 20%		C2012JB2E223M125AA	C2012JB2A223M125AA
	3216	1.15 ± 0.15	± 10%		C3216JB2E223K115AA	
			± 20%		C3216JB2E223M115AA	
3216	1.30 ± 0.20	± 10%	C3216JB2J223K130AA			
		± 20%	C3216JB2J223M130AA			
33 nF	2012	1.25 ± 0.20	± 10%			C2012JB2A333K125AA
			± 20%			C2012JB2A333M125AA
	3216	1.15 ± 0.15	± 10%			C3216JB2A333K115AA
			± 20%			C3216JB2A333M115AA
3216	1.60 ± 0.20	± 10%	C3216JB2J333K160AA	C3216JB2E333K160AA		
		± 20%	C3216JB2J333M160AA	C3216JB2E333M160AA		
47 nF	2012	1.25 ± 0.20	± 10%			C2012JB2A473K125AA
			± 20%			C2012JB2A473M125AA
	3216	1.15 ± 0.15	± 10%			C3216JB2A473K115AA
			± 20%			C3216JB2A473M115AA
	3216	1.60 ± 0.20	± 10%		C3216JB2E473K160AA	
			± 20%		C3216JB2E473M160AA	
3225	2.00 ± 0.20	± 10%	C3225JB2J473K200AA			
3225	2.00 ± 0.20	± 20%	C3225JB2J473M200AA			
68 nF	2012	0.85 ± 0.15	± 10%			C2012JB2A683K085AA
			± 20%			C2012JB2A683M085AA
	3216	1.60 ± 0.20	± 10%		C3216JB2E683K160AA	C3216JB2A683K160AA
			± 20%		C3216JB2E683M160AA	C3216JB2A683M160AA
	3225	2.00 ± 0.20	± 10%	C3225JB2J683K200AA		
			± 20%	C3225JB2J683M200AA		
4532	1.60 ± 0.20	± 10%	C4532JB2J683K160KA			
		± 20%	C4532JB2J683M160KA			
100 nF	2012	1.25 ± 0.20	± 10%			C2012JB2A104K125AA
			± 20%			C2012JB2A104M125AA
	3216	1.60 ± 0.20	± 10%		C3216JB2E104K160AA	C3216JB2A104K160AA
			± 20%		C3216JB2E104M160AA	C3216JB2A104M160AA
	3225	2.00 ± 0.20	± 10%		C3225JB2E104K200AA	
			± 20%		C3225JB2E104M200AA	
4532	2.30 ± 0.20	± 10%	C4532JB2J104K230KA			
		± 20%	C4532JB2J104M230KA			
150 nF	3216	1.60 ± 0.20	± 10%			C3216JB2A154K160AA
			± 20%			C3216JB2A154M160AA
3225	2.00 ± 0.20	± 10%		C3225JB2E154K200AA		
		± 20%		C3225JB2E154M200AA		





## Capacitance Range Table

### Class 2 (Temperature Stable)

Temperature Characteristics: JB (-25 to +85°C, ±10%)

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number		
				Rated Voltage Edc: 630V	Rated Voltage Edc: 250V	Rated Voltage Edc: 100V
150 nF	4532	1.60 ± 0.20	± 10%		C4532JB2E154K160KA	
			± 20%		C4532JB2E154M160KA	
	5750	1.60 ± 0.20	± 10%	C5750JB2J154K160KA		
			± 20%	C5750JB2J154M160KA		
220 nF	3216	1.15 ± 0.15	± 10%			C3216JB2A224K115AA
			± 20%			C3216JB2A224M115AA
	3225	2.00 ± 0.20	± 10%		C3225JB2E224K200AA	
			± 20%		C3225JB2E224M200AA	
	4532	2.30 ± 0.20	± 10%		C4532JB2E224K230KA	
			± 20%		C4532JB2E224M230KA	
5750	2.30 ± 0.20	± 10%	C5750JB2J224K230KA			
		± 20%	C5750JB2J224M230KA			
330 nF	3216	1.30 ± 0.20	± 10%			C3216JB2A334K130AA
			± 20%			C3216JB2A334M130AA
	3225	2.00 ± 0.20	± 10%			C3225JB2A334K200AA
			± 20%			C3225JB2A334M200AA
	4532	2.30 ± 0.20	± 10%		C4532JB2E334K230KA	
			± 20%		C4532JB2E334M230KA	
5750	1.60 ± 0.20	± 10%		C5750JB2E334K160KA		
		± 20%		C5750JB2E334M160KA		
470 nF	3216	1.60 ± 0.20	± 10%			C3216JB2A474K160AA
			± 20%			C3216JB2A474M160AA
	3225	2.00 ± 0.20	± 10%			C3225JB2A474K200AA
			± 20%			C3225JB2A474M200AA
	4532	2.30 ± 0.20	± 10%		C4532JB2E474K230KA	
			± 20%		C4532JB2E474M230KA	
5750	2.30 ± 0.20	± 10%		C5750JB2E474K230KA		
		± 20%		C5750JB2E474M230KA		
680 nF	3216	1.60 ± 0.20	± 10%			C3216JB2A684K160AA
			± 20%			C3216JB2A684M160AA
	3225	1.60 ± 0.20	± 10%			C3225JB2A684K160AA
			± 20%			C3225JB2A684M160AA
	4532	2.30 ± 0.20	± 10%			C4532JB2A684K230KA
			± 20%			C4532JB2A684M230KA
5750	1.60 ± 0.20	± 10%			C5750JB2A684K160KA	
		± 20%			C5750JB2A684M160KA	
1 µF	3216	1.60 ± 0.20	± 10%			C3216JB2A105K160AA
			± 20%			C3216JB2A105M160AA
	3225	2.00 ± 0.20	± 10%			C3225JB2A105K200AA
			± 20%			C3225JB2A105M200AA
	4532	2.30 ± 0.20	± 10%			C4532JB2A105K230KA
			± 20%			C4532JB2A105M230KA
5750	2.30 ± 0.20	± 10%		C5750JB2E105K230KA	C5750JB2A105K230KA	
		± 20%		C5750JB2E105M230KA	C5750JB2A105M230KA	
1.5 µF	3225	2.00 ± 0.20	± 10%			C3225JB2A155K200AB
			± 20%			C3225JB2A155M200AB
	4532	2.30 ± 0.20	± 10%			C4532JB2A155K230KA
			± 20%			C4532JB2A155M230KA
	5750	2.30 ± 0.20	± 10%			C5750JB2A155K230KA
			± 20%			C5750JB2A155M230KA
2.2 µF	3225	2.30 ± 0.20	± 10%			C3225JB2A225K230AB
			± 20%			C3225JB2A225M230AB
	4532	2.30 ± 0.20	± 10%			C4532JB2A225K230KA
			± 20%			C4532JB2A225M230KA
	5750	2.30 ± 0.20	± 10%			C5750JB2A225K230KA
			± 20%			C5750JB2A225M230KA
3.3 µF	5750	2.30 ± 0.20	± 10%			C5750JB2A335K230KA
			± 20%			C5750JB2A335M230KA
4.7 µF	5750	2.30 ± 0.20	± 10%			C5750JB2A475K230KA
			± 20%			C5750JB2A475M230KA



## Capacitance Range Table

### Class 2 (Temperature Stable)

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

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number		
				Rated Voltage Edc: 630V	Rated Voltage Edc: 250V	Rated Voltage Edc: 100V
1 nF	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		
1.5 nF	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		
2.2 nF	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		
3.3 nF	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		
4.7 nF	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		
6.8 nF	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		
10 nF	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		
15 nF	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		
22 nF	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		
33 nF	2012	1.25 ± 0.20	± 10%			C2012X5R2A333K125AA
			± 20%			C2012X5R2A333M125AA
	3216	1.60 ± 0.20	± 10%	C3216X5R2J333K160AA	C3216X5R2E333K160AA	
			± 20%	C3216X5R2J333M160AA	C3216X5R2E333M160AA	



## Capacitance Range Table

### Class 2 (Temperature Stable)

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

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number		
				Rated Voltage Edc: 630V	Rated Voltage Edc: 250V	Rated Voltage Edc: 100V
47 nF	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		
68 nF	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		
100 nF	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		
150 nF	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		
220 nF	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		
330 nF	3216	1.30 ± 0.20	± 10%			C3216X5R2A334K130AA
			± 20%			C3216X5R2A334M130AA
	4532	2.30 ± 0.20	± 10%		C4532X5R2E334K230KA	
470 nF	3216	1.60 ± 0.20	± 10%			C3216X5R2A474K160AA
			± 20%			C3216X5R2A474M160AA
	4532	2.30 ± 0.20	± 10%		C4532X5R2E474K230KA	
			± 20%		C4532X5R2E474M230KA	
	3216	1.60 ± 0.20	± 10%			C3216X5R2A684K160AA
			± 20%			C3216X5R2A684M160AA
5750	2.30 ± 0.20	± 10%		C5750X5R2E684K230KA		
1 μF	3216	1.60 ± 0.20	± 10%			C3216X5R2A105K160AA
			± 20%			C3216X5R2A105M160AA
	5750	2.30 ± 0.20	± 10%		C5750X5R2E105K230KA	
			± 20%		C5750X5R2E105M230KA	
	3225	2.00 ± 0.20	± 10%			C3225X5R2A155K200AB
			± 20%			C3225X5R2A155M200AB
2.2 μF	3225	2.30 ± 0.20	± 10%			C3225X5R2A225K230AB
			± 20%			C3225X5R2A225M230AB
3.3 μF	5750	2.30 ± 0.20	± 10%			C5750X5R2A335K230KA
			± 20%			C5750X5R2A335M230KA
4.7 μF	5750	2.30 ± 0.20	± 10%			C5750X5R2A475K230KA
			± 20%			C5750X5R2A475M230KA



## Capacitance Range Table

### Class 2 (Temperature Stable)

Temperature Characteristics: X6S (-55 to +105°C, ±22%)

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number	
				Rated Voltage Edc: 450V	
1 µF	5750	2.50 ± 0.30	± 10%	C5750X6S2W105K250KA	
			± 20%	C5750X6S2W105M250KA	
2.2 µF	5750	2.50 ± 0.30	± 10%	C5750X6S2W225K250KA	
			± 20%	C5750X6S2W225M250KA	

### Class 2 (Temperature Stable)

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

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number		
				Rated Voltage Edc: 630V	Rated Voltage Edc: 250V	Rated Voltage Edc: 100V
1 nF	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			
1.5 nF	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			
2.2 nF	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			
3.3 nF	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			
4.7 nF	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			
6.8 nF	1608	0.80 ± 0.10	± 10%	C1608X7R2A682K080AA		
			± 20%	C1608X7R2A682M080AA		
	2012	0.85 ± 0.15	± 10%	C2012X7R2A682K085AA		
			± 20%	C2012X7R2A682M085AA		
3216	1.15 ± 0.15	± 10%	C2012X7R2E682K125AA			
		± 20%	C2012X7R2E682M125AA			
3216	1.15 ± 0.15	± 10%	C3216X7R2J682K115AA			
		± 20%	C3216X7R2J682M115AA			
10 nF	1608	0.80 ± 0.10	± 10%	C1608X7R2A103K080AA		
			± 20%	C1608X7R2A103M080AA		
	2012	0.85 ± 0.15	± 10%	C2012X7R2A103K085AA		
			± 20%	C2012X7R2A103M085AA		
3216	1.15 ± 0.15	± 10%	C2012X7R2E103K125AA			
		± 20%	C2012X7R2E103M125AA			
3216	1.15 ± 0.15	± 10%	C3216X7R2J103K115AA			
		± 20%	C3216X7R2J103M115AA			



## Capacitance Range Table

### Class 2 (Temperature Stable)

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

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number		
				Rated Voltage Edc: 630V	Rated Voltage Edc: 250V	Rated Voltage Edc: 100V
15 nF	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	
3216	1.30 ± 0.20	± 10%	C3216X7R2J153K130AA			
		± 20%	C3216X7R2J153M130AA			
22 nF	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	
3216	1.30 ± 0.20	± 10%	C3216X7R2J223K130AA			
		± 20%	C3216X7R2J223M130AA			
33 nF	2012	1.25 ± 0.20	± 10%			C2012X7R2A333K125AA
			± 20%			C2012X7R2A333M125AA
	3216	1.15 ± 0.15	± 10%			C3216X7R2A333K115AA
			± 20%			C3216X7R2A333M115AA
	3216	1.60 ± 0.20	± 10%	C3216X7R2J333K160AA	C3216X7R2E333K160AA	
			± 20%	C3216X7R2J333M160AA	C3216X7R2E333M160AA	
47 nF	2012	1.25 ± 0.20	± 10%			C2012X7R2A473K125AA
			± 20%			C2012X7R2A473M125AA
	3216	1.15 ± 0.15	± 10%			C3216X7R2A473K115AA
			± 20%			C3216X7R2A473M115AA
	3216	1.60 ± 0.20	± 10%		C3216X7R2E473K160AA	
			± 20%		C3216X7R2E473M160AA	
3225	2.00 ± 0.20	± 10%	C3225X7R2J473K200AA			
		± 20%	C3225X7R2J473M200AA			
68 nF	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			
100 nF	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			
150 nF	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			
220 nF	3216	1.15 ± 0.15	± 10%			C3216X7R2A224K115AA
			± 20%			C3216X7R2A224M115AA
3225	2.00 ± 0.20	± 10%		C3225X7R2E224K200AA		
		± 20%		C3225X7R2E224M200AA		



## Capacitance Range Table

### Class 2 (Temperature Stable)

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

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number		
				Rated Voltage Edc: 630V	Rated Voltage Edc: 250V	Rated Voltage Edc: 100V
220 nF	4532	2.30 ± 0.20	± 10%		C4532X7R2E224K230KA	
			± 20%		C4532X7R2E224M230KA	
	5750	2.30 ± 0.20	± 10%	C5750X7R2J224K230KA		
			± 20%	C5750X7R2J224M230KA		
330 nF	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	
470 nF	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	
680 nF	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		
			± 10%	C5750X7R2E684K230KA		
			± 20%	C5750X7R2E684M230KA		
1 µF	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	
1.5 µF	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
			± 10%		C3225X7R2A225K230AB	
			± 20%		C3225X7R2A225M230AB	
2.2 µF	4532	2.30 ± 0.20	± 10%			C4532X7R2A225K230KA
			± 20%			C4532X7R2A225M230KA
	5750	2.30 ± 0.20	± 10%			C5750X7R2A225K230KA
			± 20%			C5750X7R2A225M230KA
3.3 µF	5750	2.30 ± 0.20	± 10%			C5750X7R2A335K230KA
			± 20%			C5750X7R2A335M230KA
4.7 µF	5750	2.30 ± 0.20	± 10%			C5750X7R2A475K230KA
			± 20%			C5750X7R2A475M230KA



## Capacitance Range Table

### Class 2 (Temperature Stable)

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

Capacitance	Size	Thickness (mm)	Capacitance Tolerance	Catalog Number		
				Rated Voltage Edc: 630V	Rated Voltage Edc: 250V	Rated Voltage Edc: 100V
1 nF	1005	0.50 ± 0.05	± 10%			C1005X7S2A102K050BB
			± 20%			C1005X7S2A102M050BB
1.5 nF	1005	0.50 ± 0.05	± 10%			C1005X7S2A152K050BB
			± 20%			C1005X7S2A152M050BB
2.2 nF	1005	0.50 ± 0.05	± 10%			C1005X7S2A222K050BB
			± 20%			C1005X7S2A222M050BB
3.3 nF	1005	0.50 ± 0.05	± 10%			C1005X7S2A332K050BB
			± 20%			C1005X7S2A332M050BB
4.7 nF	1005	0.50 ± 0.05	± 10%			C1005X7S2A472K050BB
			± 20%			C1005X7S2A472M050BB
6.8 nF	1005	0.50 ± 0.05	± 10%			C1005X7S2A682K050BB
			± 20%			C1005X7S2A682M050BB
10 nF	1005	0.50 ± 0.05	± 10%			C1005X7S2A103K050BB
			± 20%			C1005X7S2A103M050BB
33 nF	1608	0.80 ± 0.10	± 10%			C1608X7S2A333K080AB
			± 20%			C1608X7S2A333M080AB
47 nF	1608	0.80 ± 0.10	± 10%			C1608X7S2A473K080AB
			± 20%			C1608X7S2A473M080AB
68 nF	1608	0.80 ± 0.10	± 10%			C1608X7S2A683K080AB
			± 20%			C1608X7S2A683M080AB
100 nF	1608	0.80 ± 0.10	± 10%			C1608X7S2A104K080AB
			± 20%			C1608X7S2A104M080AB
150 nF	2012	0.85 ± 0.15	± 10%			C2012X7S2A154K085AB
			± 20%			C2012X7S2A154M085AB
220 nF	2012	0.85 ± 0.15	± 10%			C2012X7S2A224K085AB
			± 20%			C2012X7S2A224M085AB
330 nF	2012	1.25 ± 0.20	± 10%			C2012X7S2A334K125AB
			± 20%			C2012X7S2A334M125AB
470 nF	2012	1.25 ± 0.20	± 10%			C2012X7S2A474K125AB
			± 20%			C2012X7S2A474M125AB
680 nF	2012	1.25 ± 0.20	± 10%			C2012X7S2A684K125AB
			± 20%			C2012X7S2A684M125AB
1 µF	2012	1.25 ± 0.20	± 10%			C2012X7S2A105K125AB
			± 20%			C2012X7S2A105M125AB
1.5 µF	3216	1.60 ± 0.20	± 10%			C3216X7S2A155K160AB
			± 20%			C3216X7S2A155M160AB
2.2 µF	3216	1.60 ± 0.20	± 10%			C3216X7S2A225K160AB
			± 20%			C3216X7S2A225M160AB
3.3 µF	3216	1.60 ± 0.20	± 10%			C3216X7S2A335K160AB
			± 20%			C3216X7S2A335M160AB
4.7 µF	3225	2.00 ± 0.20	± 10%			C3225X7S2A335K200AB
			± 20%			C3225X7S2A335M200AB
6.8 µF	4532	2.00 ± 0.20	± 10%			C4532X7S2A335K200KB
			± 20%			C4532X7S2A335M200KB
10 µF	3225	2.00 ± 0.20	± 10%			C3225X7S2A475K200AB
			± 20%			C3225X7S2A475M200AB
15 µF	4532	2.30 ± 0.20	± 10%			C4532X7S2A475K230KB
			± 20%			C4532X7S2A475M230KB
6.8 µF	5750	2.00 ± 0.20	± 10%			C5750X7S2A685K200KB
			± 20%			C5750X7S2A685M200KB
10 µF	5750	2.30 ± 0.20	± 10%			C5750X7S2A106K230KB
			± 20%			C5750X7S2A106M230KB
15 µF	5750	2.50 ± 0.30	± 10%			C5750X7S2A156M250KB
			± 20%			C5750X7S2A156M250KB



## Capacitance Range Table

### Class 2 (Temperature Stable)

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

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