

# C3225X7R2J473M200AA Datasheet



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|                              |   |
|------------------------------|---|
| DiGi Electronics Part Number | C3225X7R2J473M200AA-DG  |
| Manufacturer                 | <a href="#">TDK Corporation</a>                                       |
| Manufacturer Product Number  | C3225X7R2J473M200AA   |
| Description                  | CAP CER 0.047UF 630V X7R 1210   |
| Detailed Description         | 0.047 $\mu$ F $\pm$ 20% 630V Ceramic Capacitor X7R 1210 (3225 Metric) |

This model C3225X7R2J473M200AA is available at DiGi Electronics.

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## Purchase and inquiry

**Manufacturer Product Number:**

C3225X7R2J473M200AA

**Series:**

C

**Capacitance:**0.047  $\mu$ F**Voltage - Rated:**

630V

**Operating Temperature:**

-55°C ~ 125°C

**Ratings:**

-

**Failure Rate:**

-

**Package / Case:**

1210 (3225 Metric)

**Height - Seated (Max):**

-

**Lead Spacing:**

-

**Manufacturer:**

TDK Corporation

**Product Status:**

Not For New Designs

**Tolerance:** $\pm$ 20%**Temperature Coefficient:**

X7R

**Features:**

-

**Applications:**

General Purpose

**Mounting Type:**

Surface Mount, MLCC

**Size / Dimension:**

0.126" L x 0.098" W (3.20mm x 2.50mm)

**Thickness (Max):**

0.087" (2.20mm)

**Lead Style:**

-

## Environmental & Export classification

**RoHS Status:**

ROHS3 Compliant

**REACH Status:**

REACH Unaffected

**HTSUS:**

8532.24.0020

**Moisture Sensitivity Level (MSL):**

1 (Unlimited)

**ECCN:**

EAR99



# MULTILAYER CERAMIC CHIP CAPACITORS

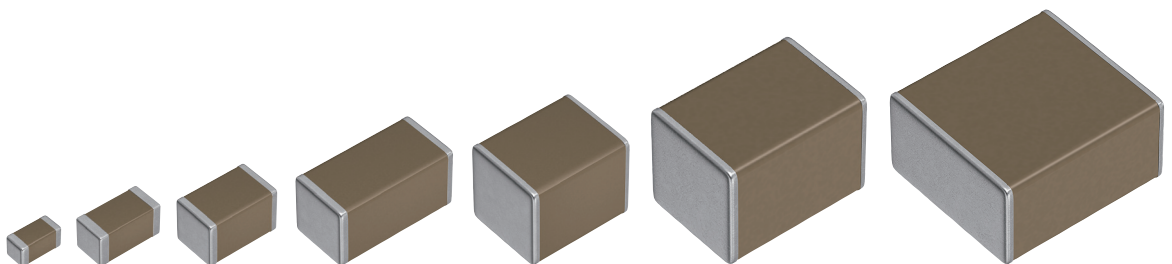
Commercial grade, mid voltage (100 to 630V)

## C series

---

|              |                    |
|--------------|--------------------|
| <b>C1005</b> | <b>[0402 inch]</b> |
| <b>C1608</b> | <b>[0603 inch]</b> |
| <b>C2012</b> | <b>[0805 inch]</b> |
| <b>C3216</b> | <b>[1206 inch]</b> |
| <b>C3225</b> | <b>[1210 inch]</b> |
| <b>C4532</b> | <b>[1812 inch]</b> |
| <b>C5750</b> | <b>[2220 inch]</b> |

\* Dimensions code: JIS[EIA]



## REMINDERS FOR USING THESE PRODUCTS

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

### SAFETY REMINDERS

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

### REMINDERS

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

When designing your equipment involving the Products, you are kindly requested to take into consideration securing protection circuit/equipment or providing backup circuits, etc. in your equipment, to ensure higher safety.

- We may modify products or discontinue production of a product listed in this catalog without prior notification.
- We provide "Delivery Specification" that explain precautions for the specifications and safety of each product listed in this catalog. We strongly recommend that you exchange these delivery specifications with customers that use one of these products.
- If you plan to export a product listed in this catalog, keep in mind that it may be a restricted item according to the "Foreign Exchange and Foreign Trade Control Law". In such cases, it is necessary to acquire export permission in harmony with this law.
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Notice: Effective January 2013, TDK will use a new catalog number which adds product thickness and packaging specification detail. This new catalog number should be referenced on all catalog orders going forward, and is not applicable for OEM part number orders. Please be aware the last five digits of the catalog number will differ from the item description (internal control number) on the product label. Contact your local TDK Sales representative for more information.

(Example)

| Catalog issued date    | Catalog number        | Item description (on delivery label) |
|------------------------|-----------------------|--------------------------------------|
| Prior to January 2013  | C1608C0G1E103J(080AA) | C1608C0G1E103JT000N                  |
| January 2013 and later | C1608C0G1E103J080AA   | C1608C0G1E103JT000N                  |

## MULTILAYER CERAMIC CHIP CAPACITORS



# C series

## Mid voltage (100 to 630V)



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

### SERIES OVERVIEW

Commercial 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 22 $\mu$ F.

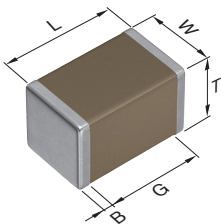
### FEATURES

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

### APPLICATION

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

### SHAPE & DIMENSIONS



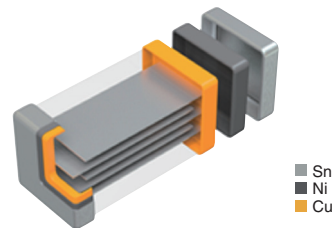
|   |                  |
|---|------------------|
| L | Body length      |
| W | Body width       |
| T | Body height      |
| B | Terminal width   |
| G | Terminal spacing |

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.

### PRODUCT STRUCTURE



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

## MULTILAYER CERAMIC CHIP CAPACITORS



## CATALOG NUMBER CONSTRUCTION

|          |             |            |           |            |          |            |          |          |
|----------|-------------|------------|-----------|------------|----------|------------|----------|----------|
| <b>C</b> | <b>2012</b> | <b>X7R</b> | <b>2A</b> | <b>225</b> | <b>K</b> | <b>125</b> | <b>A</b> | <b>C</b> |
| (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/ °C                                  | -55 to +125 °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    |

**(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 |


## MULTILAYER CERAMIC CHIP CAPACITORS





## Capacitance range chart


## C1005 [0402 inch]

| Capacitance |      | COG          | X7S          |
|-------------|------|--------------|--------------|
| (pF)        | Code | 2A<br>(100V) | 2A<br>(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.

 Click the charts for details.

 For details such as the catalog numbers, please refer to the capacitance range table on page 13 and after.


## MULTILAYER CERAMIC CHIP CAPACITORS




## Capacitance range chart


## C1608 [0603 inch]

| Capacitance |      | COG          |              | X5R          | X7R          | X7S          |
|-------------|------|--------------|--------------|--------------|--------------|--------------|
| (pF)        | Code | 2E<br>(250V) | 2A<br>(100V) | 2A<br>(100V) | 2A<br>(100V) | 2A<br>(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  |              |              |              |              |              |
| 1,000,000   | 105  |              |              |              |              |              |

Standard thickness  0.80 mm

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

 Click the charts for details.

 For details such as the catalog numbers, please refer to the capacitance range table on page 13 and after.




MULTILAYER CERAMIC CHIP CAPACITORS 


Capacitance range chart


C2012 [0805 inch]


| Capacitance |      | COG       |           |           | 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.

 Click the charts for details.

 For details such as the catalog numbers, please refer to the capacitance range table on page 13 and after.

## MULTILAYER CERAMIC CHIP CAPACITORS



## Capacitance range chart

## C3216 [1206 inch]

| Capacitance |      | COG          |              |              |              |
|-------------|------|--------------|--------------|--------------|--------------|
| (pF)        | Code | 2J<br>(630V) | 2W<br>(450V) | 2E<br>(250V) | 2A<br>(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  1.60 mm

■ Click the charts for details.

■ For details such as the catalog numbers, please refer to the capacitance range table on page 13 and after.


MULTILAYER CERAMIC CHIP CAPACITORS 


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.

 Click the charts for details.

 For details such as the catalog numbers, please refer to the capacitance range table on page 13 and after.

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

## MULTILAYER CERAMIC CHIP CAPACITORS



## Capacitance range chart

## C3225 [1210 inch]

| Capacitance |      | COG          |              |              |              |
|-------------|------|--------------|--------------|--------------|--------------|
| (pF)        | Code | 2J<br>(630V) | 2W<br>(450V) | 2E<br>(250V) | 2A<br>(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<br>(630V) | 2E<br>(250V) | 2A<br>(100V) | 2J<br>(630V) | 2E<br>(250V) | 2A<br>(100V) | 2A<br>(100V) | 2J<br>(630V) | 2W<br>(450V) | 2E<br>(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.

Click the charts for details.

For details such as the catalog numbers, please refer to the capacitance range table on page 13 and after.

## MULTILAYER CERAMIC CHIP CAPACITORS



## Capacitance range chart

## C4532 [1812 inch]

| Capacitance |      | COG          |              |              |              |
|-------------|------|--------------|--------------|--------------|--------------|
| (pF)        | Code | 2J<br>(630V) | 2W<br>(450V) | 2E<br>(250V) | 2A<br>(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<br>(630V) | 2E<br>(250V) | 2J<br>(630V) | 2E<br>(250V) | 2A<br>(100V) | 2A<br>(100V) | 2J<br>(630V) | 2W<br>(450V) | 2E<br>(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.

■ Click the charts for details.

■ For details such as the catalog numbers, please refer to the capacitance range table on page 13 and after.

MULTILAYER CERAMIC CHIP CAPACITORS 

Capacitance range chart

C5750 [2220 inch]

| Capacitance |      | COG          |              |              |              |
|-------------|------|--------------|--------------|--------------|--------------|
| (pF)        | Code | 2J<br>(630V) | 2W<br>(450V) | 2E<br>(250V) | 2A<br>(100V) |
| 68,000      | 683  |              |              |              |              |
| 100,000     | 104  |              |              |              |              |
| 150,000     | 154  |              |              |              |              |

| Capacitance |      | X5R          |              |              | X6S          | X7R          |              |              | X7S          | X7T          |              |              |
|-------------|------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| (pF)        | Code | 2J<br>(630V) | 2E<br>(250V) | 2A<br>(100V) | 2W<br>(450V) | 2J<br>(630V) | 2E<br>(250V) | 2A<br>(100V) | 2A<br>(100V) | 2J<br>(630V) | 2W<br>(450V) | 2E<br>(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.

Click the charts for details.

For details such as the catalog numbers, please refer to the capacitance range table on page 13 and after.

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

## MULTILAYER CERAMIC CHIP CAPACITORS



## Capacitance range table

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

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

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

## MULTILAYER CERAMIC CHIP CAPACITORS



## Capacitance range table

Temperature characteristic: COG (-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%                  |                                     |                                     |                                     | <a href="#">C1005C0G2A331K050BA</a> |
|             |            |                | ±5%                   |                                     |                                     | <a href="#">C1005C0G2A331J050BA</a> |                                     |
|             | 1608       | 0.80±0.10      | ±10%                  |                                     | <a href="#">C1608C0G2E331K080AA</a> | <a href="#">C1608C0G2A331K080AA</a> |                                     |
|             |            |                | ±5%                   |                                     | <a href="#">C1608C0G2E331J080AA</a> | <a href="#">C1608C0G2A331J080AA</a> |                                     |
|             | 2012       | 0.60±0.15      | ±10%                  |                                     | <a href="#">C2012C0G2W331K060AA</a> |                                     |                                     |
|             |            | ±5%            |                       | <a href="#">C2012C0G2W331J060AA</a> |                                     |                                     |                                     |
|             | 3216       | 0.60±0.15      | ±10%                  | <a href="#">C3216C0G2J331K060AA</a> |                                     |                                     |                                     |
|             |            |                | ±5%                   | <a href="#">C3216C0G2J331J060AA</a> |                                     |                                     |                                     |
| 470pF       | 1005       | 0.50±0.05      | ±10%                  |                                     |                                     |                                     | <a href="#">C1005C0G2A471K050BA</a> |
|             |            |                | ±5%                   |                                     |                                     | <a href="#">C1005C0G2A471J050BA</a> |                                     |
|             | 1608       | 0.80±0.10      | ±10%                  |                                     | <a href="#">C1608C0G2E471K080AA</a> | <a href="#">C1608C0G2A471K080AA</a> |                                     |
|             |            |                | ±5%                   |                                     | <a href="#">C1608C0G2E471J080AA</a> | <a href="#">C1608C0G2A471J080AA</a> |                                     |
|             | 2012       | 0.60±0.15      | ±10%                  |                                     | <a href="#">C2012C0G2W471K060AA</a> |                                     |                                     |
|             |            | ±5%            |                       | <a href="#">C2012C0G2W471J060AA</a> |                                     |                                     |                                     |
|             | 3216       | 0.85±0.15      | ±10%                  | <a href="#">C3216C0G2J471K085AA</a> |                                     |                                     |                                     |
|             |            |                | ±5%                   | <a href="#">C3216C0G2J471J085AA</a> |                                     |                                     |                                     |
| 680pF       | 1005       | 0.50±0.05      | ±10%                  |                                     |                                     |                                     | <a href="#">C1005C0G2A681K050BC</a> |
|             |            |                | ±5%                   |                                     |                                     | <a href="#">C1005C0G2A681J050BC</a> |                                     |
|             | 1608       | 0.80±0.10      | ±10%                  |                                     | <a href="#">C1608C0G2E681K080AA</a> | <a href="#">C1608C0G2A681K080AA</a> |                                     |
|             |            |                | ±5%                   |                                     | <a href="#">C1608C0G2E681J080AA</a> | <a href="#">C1608C0G2A681J080AA</a> |                                     |
|             | 2012       | 0.60±0.15      | ±10%                  |                                     | <a href="#">C2012C0G2W681K060AA</a> |                                     |                                     |
|             |            | ±5%            |                       | <a href="#">C2012C0G2W681J060AA</a> |                                     |                                     |                                     |
|             | 3216       | 0.85±0.15      | ±10%                  | <a href="#">C3216C0G2J681K085AA</a> |                                     |                                     |                                     |
|             |            |                | ±5%                   | <a href="#">C3216C0G2J681J085AA</a> |                                     |                                     |                                     |
| 1nF         | 1005       | 0.50±0.05      | ±10%                  |                                     |                                     |                                     | <a href="#">C1005C0G2A102K050BC</a> |
|             |            |                | ±5%                   |                                     |                                     | <a href="#">C1005C0G2A102J050BC</a> |                                     |
|             | 1608       | 0.80±0.10      | ±10%                  |                                     | <a href="#">C1608C0G2E102K080AA</a> | <a href="#">C1608C0G2A102K080AA</a> |                                     |
|             |            |                | ±5%                   |                                     | <a href="#">C1608C0G2E102J080AA</a> | <a href="#">C1608C0G2A102J080AA</a> |                                     |
|             |            |                | ±2%                   |                                     |                                     | <a href="#">C1608C0G2A102G080AA</a> |                                     |
|             |            |                | ±1%                   |                                     |                                     | <a href="#">C1608C0G2A102F080AA</a> |                                     |
|             | 2012       | 0.60±0.15      | ±10%                  |                                     | <a href="#">C2012C0G2W102K060AA</a> |                                     |                                     |
|             |            |                | ±5%                   |                                     | <a href="#">C2012C0G2W102J060AA</a> | <a href="#">C2012C0G2A102J060AA</a> |                                     |
|             | 0.85±0.15  | ±10%           |                       |                                     | <a href="#">C2012C0G2E102K085AA</a> |                                     |                                     |
|             |            | ±5%            |                       | <a href="#">C2012C0G2E102J085AA</a> |                                     |                                     |                                     |
|             | 3216       | 0.85±0.15      | ±10%                  | <a href="#">C3216C0G2J102K085AA</a> |                                     |                                     |                                     |
|             |            |                | ±5%                   | <a href="#">C3216C0G2J102J085AA</a> |                                     |                                     |                                     |

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

## MULTILAYER CERAMIC CHIP CAPACITORS



## Capacitance range table

Temperature characteristic: COG (-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%                  |                                     |                                     | <a href="#">C1608C0G2E122K080AA</a> | <a href="#">C1608C0G2A122K080AA</a> |
|             |            |                 | ±5%                   |                                     |                                     | <a href="#">C1608C0G2E122J080AA</a> | <a href="#">C1608C0G2A122J080AA</a> |
|             | 2012       | 0.60±0.15       | ±10%                  |                                     | <a href="#">C2012C0G2W122K060AA</a> |                                     |                                     |
|             |            |                 | ±5%                   |                                     | <a href="#">C2012C0G2W122J060AA</a> |                                     | <a href="#">C2012C0G2A122J060AA</a> |
|             | 3216       | 0.85±0.15       | ±10%                  |                                     | <a href="#">C3216C0G2J122K085AA</a> |                                     |                                     |
|             |            |                 | ±5%                   |                                     | <a href="#">C3216C0G2J122J085AA</a> |                                     |                                     |
| 1.5nF       | 1608       | 0.80±0.10       | ±10%                  |                                     |                                     | <a href="#">C1608C0G2E152K080AA</a> | <a href="#">C1608C0G2A152K080AA</a> |
|             |            |                 | ±5%                   |                                     |                                     | <a href="#">C1608C0G2E152J080AA</a> | <a href="#">C1608C0G2A152J080AA</a> |
|             | 2012       | 0.60±0.15       | ±10%                  |                                     |                                     |                                     | <a href="#">C2012C0G2A152K060AA</a> |
|             |            |                 | ±5%                   |                                     | <a href="#">C2012C0G2W152K085AA</a> | <a href="#">C2012C0G2E152K085AA</a> | <a href="#">C2012C0G2A152J060AA</a> |
|             | 3216       | 1.15±0.15       | ±10%                  |                                     | <a href="#">C3216C0G2J152K115AA</a> |                                     |                                     |
|             |            |                 | ±5%                   |                                     | <a href="#">C3216C0G2J152J115AA</a> |                                     |                                     |
| 1.8nF       | 1608       | 0.80±0.10       | ±10%                  |                                     |                                     | <a href="#">C1608C0G2E182K080AA</a> | <a href="#">C1608C0G2A182K080AA</a> |
|             |            |                 | ±5%                   |                                     |                                     | <a href="#">C1608C0G2E182J080AA</a> | <a href="#">C1608C0G2A182J080AA</a> |
|             | 2012       | 0.85±0.15       | ±10%                  |                                     | <a href="#">C2012C0G2W182K085AA</a> |                                     | <a href="#">C2012C0G2A182K085AA</a> |
|             |            |                 | ±5%                   |                                     | <a href="#">C2012C0G2W182J085AA</a> |                                     | <a href="#">C2012C0G2A182J085AA</a> |
|             | 3216       | 1.15±0.15       | ±10%                  |                                     | <a href="#">C3216C0G2J182K115AA</a> |                                     |                                     |
|             |            |                 | ±5%                   |                                     | <a href="#">C3216C0G2J182J115AA</a> |                                     |                                     |
| 2.2nF       | 1608       | 0.80±0.10       | ±10%                  |                                     |                                     | <a href="#">C1608C0G2E222K080AA</a> | <a href="#">C1608C0G2A222K080AA</a> |
|             |            |                 | ±5%                   |                                     |                                     | <a href="#">C1608C0G2E222J080AA</a> | <a href="#">C1608C0G2A222J080AA</a> |
|             | 2012       | 0.80±0.15,-0.10 | ±10%                  |                                     |                                     |                                     | <a href="#">C2012C0G2A222K085AA</a> |
|             |            |                 | ±5%                   |                                     | <a href="#">C2012C0G2W222K085AA</a> | <a href="#">C2012C0G2E222K125AA</a> | <a href="#">C2012C0G2A222J085AA</a> |
|             | 3216       | 1.15±0.15       | ±10%                  |                                     | <a href="#">C3216C0G2J222K115AA</a> |                                     |                                     |
|             |            |                 | ±5%                   |                                     | <a href="#">C3216C0G2J222J115AA</a> |                                     |                                     |
| 2.7nF       | 1608       | 0.80±0.15,-0.10 | ±10%                  |                                     |                                     | <a href="#">C1608C0G2A272K080AA</a> | <a href="#">C1608C0G2A272J080AA</a> |
|             |            |                 | ±5%                   |                                     |                                     | <a href="#">C1608C0G2A272K125AA</a> | <a href="#">C1608C0G2A272J125AA</a> |
|             | 2012       | 1.25±0.20       | ±10%                  |                                     | <a href="#">C2012C0G2W272K125AA</a> | <a href="#">C2012C0G2E272K125AA</a> | <a href="#">C2012C0G2A272K125AA</a> |
|             |            |                 | ±5%                   |                                     | <a href="#">C2012C0G2W272J125AA</a> | <a href="#">C2012C0G2E272J125AA</a> | <a href="#">C2012C0G2A272J125AA</a> |
|             | 3216       | 1.60±0.20       | ±10%                  |                                     | <a href="#">C3216C0G2J272K160AA</a> |                                     |                                     |
|             |            |                 | ±5%                   |                                     | <a href="#">C3216C0G2J272J160AA</a> |                                     |                                     |
| 3.3nF       | 1608       | 0.80±0.15,-0.10 | ±10%                  |                                     |                                     | <a href="#">C1608C0G2A332K080AA</a> | <a href="#">C1608C0G2A332J080AA</a> |
|             |            |                 | ±5%                   |                                     |                                     | <a href="#">C1608C0G2A332K125AA</a> | <a href="#">C1608C0G2A332J125AA</a> |
|             | 2012       | 0.85±0.15       | ±10%                  |                                     |                                     | <a href="#">C2012C0G2E332K085AA</a> | <a href="#">C2012C0G2A332K125AA</a> |
|             |            |                 | ±5%                   |                                     | <a href="#">C2012C0G2W332K125AA</a> | <a href="#">C2012C0G2E332J085AA</a> | <a href="#">C2012C0G2A332J125AA</a> |
|             | 3216       | 1.60±0.20       | ±10%                  |                                     | <a href="#">C3216C0G2J332K160AA</a> |                                     |                                     |
|             |            |                 | ±5%                   |                                     | <a href="#">C3216C0G2J332J160AA</a> |                                     |                                     |
| 3.9nF       | 1608       | 0.80±0.10       | ±10%                  |                                     |                                     | <a href="#">C1608C0G2A392K080AC</a> | <a href="#">C1608C0G2A392J080AC</a> |
|             |            |                 | ±5%                   |                                     |                                     | <a href="#">C1608C0G2A392K125AA</a> | <a href="#">C1608C0G2A392J125AA</a> |
|             | 2012       | 1.25±0.20       | ±10%                  |                                     | <a href="#">C2012C0G2W392K125AA</a> | <a href="#">C2012C0G2E392K125AA</a> | <a href="#">C2012C0G2A392K125AA</a> |
|             |            |                 | ±5%                   |                                     | <a href="#">C2012C0G2W392J125AA</a> | <a href="#">C2012C0G2E392J125AA</a> | <a href="#">C2012C0G2A392J125AA</a> |
|             | 3216       | 0.60±0.15       | ±10%                  |                                     |                                     |                                     | <a href="#">C3216C0G2A392K060AA</a> |
|             |            |                 | ±5%                   |                                     | <a href="#">C3216C0G2J392K085AA</a> | <a href="#">C3216C0G2E392J085AA</a> | <a href="#">C3216C0G2A392J060AA</a> |
| 3225        | 1.25±0.20  | ±10%            |                       | <a href="#">C3225C0G2J392K125AA</a> |                                     |                                     |                                     |
|             |            | ±5%             |                       | <a href="#">C3225C0G2J392J125AA</a> |                                     |                                     |                                     |

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

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

## MULTILAYER CERAMIC CHIP CAPACITORS



## Capacitance range table

Temperature characteristic: COG (-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%                  | C3216C0G2J562K115AA     |                         |                         | C3216C0G2A562K115AA     |
|             |            |                | ±5%                   | C3216C0G2J562J115AA     |                         |                         | C3216C0G2A562J115AA     |
|             | 1.15±0.15  | ±10%           | C3216C0G2E562K115AA   |                         |                         |                         |                         |
|             |            | ±5%            |                       |                         | 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   |                         |                         |                         |                         |
|             |            | ±5%            | C3216C0G2J822J160AA   |                         |                         |                         |                         |
|             | 3225       | 1.25±0.20      | ±10%                  | C3225C0G2J822K125AA     |                         |                         |                         |
|             |            |                | ±5%                   | C3225C0G2J822J125AA     |                         |                         |                         |
| 10nF        | 4532       | 1.60±0.20      | ±10%                  | C4532C0G2J822K160KA     |                         |                         |                         |
|             |            |                | ±5%                   | C4532C0G2J822J160KA     |                         |                         |                         |
|             | 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%           |                       | C3216C0G2W103K115AA     |                         | C3216C0G2A103K115AA     |                         |
|             |            | ±5%            |                       | C3216C0G2W103J115AA     |                         | C3216C0G2A103J115AA     |                         |
|             | 1.60±0.20  | ±10%           | C3216C0G2J103K160AA   | C3216C0G2W103K160AA     |                         |                         |                         |
|             |            | ±5%            | C3216C0G2J103J160AA   | C3216C0G2W103J160AA     |                         |                         |                         |
|             | 3225       | 1.25±0.20      | ±10%                  | C3225C0G2J103K125AA     |                         |                         |                         |
|             |            |                | ±5%                   | C3225C0G2J103J125AA     |                         |                         |                         |
|             | 4532       | 1.60±0.20      | ±10%                  |                         |                         | C3225C0G2E103K160AA     |                         |
|             |            |                | ±5%                   |                         |                         | C3225C0G2E103J160AA     |                         |

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

## MULTILAYER CERAMIC CHIP CAPACITORS



## Capacitance range table

Temperature characteristic: COG (-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%                                |                                     |                                     |                                     | <a href="#">C2012C0G2A153K085AC</a> |
|             |            |                 | ±5%                                 |                                     |                                     |                                     | <a href="#">C2012C0G2A153J085AC</a> |
|             | 3216       | 1.15±0.15       | ±10%                                |                                     |                                     |                                     | <a href="#">C3216C0G2A153K115AA</a> |
|             |            |                 | ±5%                                 |                                     |                                     |                                     | <a href="#">C3216C0G2A153J115AA</a> |
|             | 3216       | 1.60±0.20       | ±10%                                |                                     |                                     | <a href="#">C3216C0G2E153K160AA</a> |                                     |
|             |            |                 | ±5%                                 |                                     |                                     | <a href="#">C3216C0G2E153J160AA</a> |                                     |
|             |            | 1.60+0.30,-0.10 | ±10%                                |                                     | <a href="#">C3216C0G2W153K160AA</a> |                                     |                                     |
|             |            |                 | ±5%                                 |                                     | <a href="#">C3216C0G2W153J160AA</a> |                                     |                                     |
|             | 3225       | 1.25±0.20       | ±10%                                |                                     |                                     |                                     | <a href="#">C3225C0G2A153K125AA</a> |
|             |            |                 | ±5%                                 |                                     |                                     |                                     | <a href="#">C3225C0G2A153J125AA</a> |
| 1.60±0.20   |            | ±10%            | <a href="#">C3225C0G2J153K160AA</a> |                                     |                                     |                                     |                                     |
|             |            | ±5%             | <a href="#">C3225C0G2J153J160AA</a> |                                     |                                     |                                     |                                     |
| 4532        | 2.00±0.20  | ±10%            |                                     |                                     | <a href="#">C3225C0G2E153K200AA</a> |                                     |                                     |
|             |            | ±5%             |                                     |                                     | <a href="#">C3225C0G2E153J200AA</a> |                                     |                                     |
| 22nF        | 2012       | 1.25±0.20       | ±10%                                | <a href="#">C4532C0G2J153K250KA</a> |                                     |                                     | <a href="#">C2012C0G2A223K125AC</a> |
|             |            |                 | ±5%                                 | <a href="#">C4532C0G2J153J250KA</a> |                                     |                                     | <a href="#">C2012C0G2A223J125AC</a> |
|             | 3216       | 1.60±0.20       | ±10%                                |                                     |                                     |                                     | <a href="#">C3216C0G2A223K160AA</a> |
|             |            |                 | ±5%                                 |                                     |                                     |                                     | <a href="#">C3216C0G2A223J160AA</a> |
|             | 3216       | 1.60+0.30,-0.10 | ±10%                                |                                     |                                     | <a href="#">C3216C0G2E223K160AA</a> |                                     |
|             |            |                 | ±5%                                 |                                     |                                     | <a href="#">C3216C0G2E223J160AA</a> |                                     |
|             |            | 1.60±0.20       | ±10%                                |                                     |                                     | <a href="#">C3225C0G2E223K160AA</a> | <a href="#">C3225C0G2A223K160AA</a> |
|             |            |                 | ±5%                                 |                                     |                                     | <a href="#">C3225C0G2E223J160AA</a> | <a href="#">C3225C0G2A223J160AA</a> |
|             | 3225       | 2.30±0.20       | ±10%                                | <a href="#">C3225C0G2J223K230AA</a> | <a href="#">C3225C0G2W223K230AA</a> |                                     |                                     |
|             |            |                 | ±5%                                 | <a href="#">C3225C0G2J223J230AA</a> | <a href="#">C3225C0G2W223J230AA</a> |                                     |                                     |
| 4532        | 1.60±0.20  | ±10%            |                                     |                                     | <a href="#">C4532C0G2E223K160KA</a> |                                     |                                     |
|             |            | ±5%             |                                     |                                     | <a href="#">C4532C0G2E223J160KA</a> |                                     |                                     |
| 4532        | 3.20±0.30  | ±10%            | <a href="#">C4532C0G2J223K320KA</a> |                                     |                                     |                                     |                                     |
|             |            | ±5%             | <a href="#">C4532C0G2J223J320KA</a> |                                     |                                     |                                     |                                     |
| 33nF        | 2012       | 1.25±0.20       | ±10%                                |                                     |                                     |                                     | <a href="#">C2012C0G2A333K125AC</a> |
|             |            |                 | ±5%                                 |                                     |                                     |                                     | <a href="#">C2012C0G2A333J125AC</a> |
|             | 3216       | 1.60+0.30,-0.10 | ±10%                                |                                     |                                     |                                     | <a href="#">C3216C0G2A333K160AA</a> |
|             |            |                 | ±5%                                 |                                     |                                     |                                     | <a href="#">C3216C0G2A333J160AA</a> |
|             | 3216       | 2.00±0.20       | ±10%                                |                                     |                                     | <a href="#">C3225C0G2A333K200AA</a> |                                     |
|             |            |                 | ±5%                                 |                                     |                                     | <a href="#">C3225C0G2A333J200AA</a> |                                     |
|             |            | 3225            | 2.30±0.20                           | ±10%                                |                                     | <a href="#">C3225C0G2E333K230AA</a> |                                     |
|             |            |                 |                                     | ±5%                                 |                                     | <a href="#">C3225C0G2E333J230AA</a> |                                     |
|             | 4532       | 2.50±0.30       | ±10%                                | <a href="#">C3225C0G2J333K250AA</a> | <a href="#">C3225C0G2W333K250AA</a> |                                     |                                     |
|             |            |                 | ±5%                                 | <a href="#">C3225C0G2J333J250AA</a> | <a href="#">C3225C0G2W333J250AA</a> |                                     |                                     |
| 4532        | 2.00±0.20  | ±10%            | <a href="#">C4532C0G2J333K200KA</a> |                                     | <a href="#">C4532C0G2E333K200KA</a> |                                     |                                     |
|             |            | ±5%             | <a href="#">C4532C0G2J333J200KA</a> |                                     | <a href="#">C4532C0G2E333J200KA</a> |                                     |                                     |
| 47nF        | 3216       | 1.15±0.15       | ±10%                                |                                     |                                     |                                     | <a href="#">C3216C0G2A473K115AC</a> |
|             |            |                 | ±5%                                 |                                     |                                     |                                     | <a href="#">C3216C0G2A473J115AC</a> |
|             | 3225       | 2.30±0.20       | ±10%                                |                                     |                                     |                                     | <a href="#">C3225C0G2A473K230AA</a> |
|             |            |                 | ±5%                                 |                                     |                                     |                                     | <a href="#">C3225C0G2A473J230AA</a> |
|             | 3225       | 2.50±0.30       | ±10%                                |                                     |                                     | <a href="#">C3225C0G2E473K250AA</a> |                                     |
|             |            |                 | ±5%                                 |                                     |                                     | <a href="#">C3225C0G2E473J250AA</a> |                                     |
|             |            | 2.00±0.20       | ±10%                                |                                     |                                     |                                     | <a href="#">C4532C0G2A473K200KA</a> |
|             |            |                 | ±5%                                 |                                     |                                     |                                     | <a href="#">C4532C0G2A473J200KA</a> |
|             | 4532       | 2.30±0.20       | ±10%                                |                                     | <a href="#">C4532C0G2W473K230KA</a> |                                     |                                     |
|             |            |                 | ±5%                                 |                                     | <a href="#">C4532C0G2W473J230KA</a> |                                     |                                     |
| 4532        | 3.20±0.30  | ±10%            | <a href="#">C4532C0G2J473K320KA</a> |                                     | <a href="#">C4532C0G2E473K320KA</a> |                                     |                                     |
|             |            | ±5%             | <a href="#">C4532C0G2J473J320KA</a> |                                     | <a href="#">C4532C0G2E473J320KA</a> |                                     |                                     |
| 68nF        | 3216       | 1.60±0.20       | ±10%                                |                                     |                                     |                                     | <a href="#">C3216C0G2A683K160AC</a> |
|             |            |                 | ±5%                                 |                                     |                                     |                                     | <a href="#">C3216C0G2A683J160AC</a> |
|             | 3225       | 2.30±0.20       | ±10%                                |                                     |                                     |                                     | <a href="#">C3225C0G2A683K230AA</a> |
|             |            |                 | ±5%                                 |                                     |                                     |                                     | <a href="#">C3225C0G2A683J230AA</a> |
|             | 3225       | 2.30±0.20       | ±10%                                |                                     |                                     | <a href="#">C4532C0G2E683K230KN</a> |                                     |
|             |            |                 | ±5%                                 |                                     |                                     | <a href="#">C4532C0G2E683J230KN</a> |                                     |
|             |            | 2.50±0.30       | ±10%                                |                                     |                                     |                                     | <a href="#">C4532C0G2A683K250KA</a> |
|             |            |                 | ±5%                                 |                                     |                                     |                                     | <a href="#">C4532C0G2A683J250KA</a> |
|             | 4532       | 3.20±0.30       | ±10%                                |                                     | <a href="#">C4532C0G2W683K320KA</a> |                                     |                                     |
|             |            |                 | ±5%                                 |                                     | <a href="#">C4532C0G2W683J320KA</a> |                                     |                                     |
| 5750        | 2.30±0.20  | ±10%            | <a href="#">C5750C0G2J683K230KC</a> |                                     |                                     |                                     |                                     |
|             |            | ±5%             | <a href="#">C5750C0G2J683J230KC</a> |                                     |                                     |                                     |                                     |

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

⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use.  
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## MULTILAYER CERAMIC CHIP CAPACITORS



## Capacitance range table

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

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

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

## MULTILAYER CERAMIC CHIP CAPACITORS



## Capacitance range table

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

| Capacitance | Dimensions | Thickness (mm) | Capacitance tolerance | Catalog number          |                         |                         |
|-------------|------------|----------------|-----------------------|-------------------------|-------------------------|-------------------------|
|             |            |                |                       | Rated voltage Edc: 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     |                         |
|             | 2012       | 1.25±0.20      | ±10%                  |                         |                         | C2012X5R2A473K125AA     |
|             |            |                | ±20%                  |                         |                         | C2012X5R2A473M125AA     |
| 3216        | 1.60±0.20  | ±10%           |                       | C3216X5R2E473K160AA     |                         |                         |
|             |            | ±20%           |                       | C3216X5R2E473M160AA     |                         |                         |
| 68nF        | 3225       | 2.00±0.20      | ±10%                  | C3225X5R2J473K200AA     |                         |                         |
|             |            |                | ±20%                  | C3225X5R2J473M200AA     |                         |                         |
|             | 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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## MULTILAYER CERAMIC CHIP CAPACITORS



## Capacitance range table

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

| Capacitance | Dimensions | Thickness (mm)  | Capacitance tolerance | Catalog number          |                         |                         |
|-------------|------------|-----------------|-----------------------|-------------------------|-------------------------|-------------------------|
|             |            |                 |                       | Rated voltage Edc: 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     |

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

## 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     |

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

## MULTILAYER CERAMIC CHIP CAPACITORS



## Capacitance range table

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

| Capacitance   | Dimensions | Thickness (mm) | Capacitance tolerance               | Catalog number                      |                                     |                                     |
|---|------------|----------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
|   |            |                |                                     | Rated voltage Edc: 630V             | Rated voltage Edc: 250V             | Rated voltage Edc: 100V             |
| 1nF   | 1608       | 0.80±0.10      | ±10%                                |                                     |                                     | <a href="#">C1608X7R2A102K080AA</a> |
|   |            |                | ±20%                                |                                     |                                     | <a href="#">C1608X7R2A102M080AA</a> |
|   | 2012       | 0.85±0.15      | ±10%                                |                                     | <a href="#">C2012X7R2E102K085AA</a> | <a href="#">C2012X7R2A102K085AA</a> |
|   |            |                | ±20%                                |                                     | <a href="#">C2012X7R2E102M085AA</a> | <a href="#">C2012X7R2A102M085AA</a> |
| 3216  | 1.15±0.15  | ±10%           | <a href="#">C3216X7R2J102K115AA</a> |                                     |                                     |                                     |
|   |            | ±20%           | <a href="#">C3216X7R2J102M115AA</a> |                                     |                                     |                                     |
| 1.5nF   | 1608       | 0.80±0.10      | ±10%                                |                                     |                                     | <a href="#">C1608X7R2A152K080AA</a> |
|   |            |                | ±20%                                |                                     |                                     | <a href="#">C1608X7R2A152M080AA</a> |
|   | 2012       | 0.85±0.15      | ±10%                                |                                     | <a href="#">C2012X7R2E152K085AA</a> | <a href="#">C2012X7R2A152K085AA</a> |
|   |            |                | ±20%                                |                                     | <a href="#">C2012X7R2E152M085AA</a> | <a href="#">C2012X7R2A152M085AA</a> |
| 3216  | 1.15±0.15  | ±10%           | <a href="#">C3216X7R2J152K115AA</a> |                                     |                                     |                                     |
|   |            | ±20%           | <a href="#">C3216X7R2J152M115AA</a> |                                     |                                     |                                     |
| 2.2nF   | 1608       | 0.80±0.10      | ±10%                                |                                     |                                     | <a href="#">C1608X7R2A222K080AA</a> |
|   |            |                | ±20%                                |                                     |                                     | <a href="#">C1608X7R2A222M080AA</a> |
|   | 2012       | 0.85±0.15      | ±10%                                |                                     | <a href="#">C2012X7R2E222K085AA</a> | <a href="#">C2012X7R2A222K085AA</a> |
|   |            |                | ±20%                                |                                     | <a href="#">C2012X7R2E222M085AA</a> | <a href="#">C2012X7R2A222M085AA</a> |
| 3216  | 1.15±0.15  | ±10%           | <a href="#">C3216X7R2J222K115AA</a> |                                     |                                     |                                     |
|   |            | ±20%           | <a href="#">C3216X7R2J222M115AA</a> |                                     |                                     |                                     |
| 3.3nF   | 1608       | 0.80±0.10      | ±10%                                |                                     |                                     | <a href="#">C1608X7R2A332K080AA</a> |
|   |            |                | ±20%                                |                                     |                                     | <a href="#">C1608X7R2A332M080AA</a> |
|   | 2012       | 0.85±0.15      | ±10%                                |                                     | <a href="#">C2012X7R2E332K085AA</a> | <a href="#">C2012X7R2A332K085AA</a> |
|   |            |                | ±20%                                |                                     | <a href="#">C2012X7R2E332M085AA</a> | <a href="#">C2012X7R2A332M085AA</a> |
| 3216  | 1.15±0.15  | ±10%           | <a href="#">C3216X7R2J332K115AA</a> |                                     |                                     |                                     |
|   |            | ±20%           | <a href="#">C3216X7R2J332M115AA</a> |                                     |                                     |                                     |
| 4.7nF   | 1608       | 0.80±0.10      | ±10%                                |                                     |                                     | <a href="#">C1608X7R2A472K080AA</a> |
|   |            |                | ±20%                                |                                     |                                     | <a href="#">C1608X7R2A472M080AA</a> |
|   | 2012       | 0.85±0.15      | ±10%                                |                                     | <a href="#">C2012X7R2E472K085AA</a> | <a href="#">C2012X7R2A472K085AA</a> |
|   |            |                | ±20%                                |                                     | <a href="#">C2012X7R2E472M085AA</a> | <a href="#">C2012X7R2A472M085AA</a> |
| 3216  | 1.15±0.15  | ±10%           | <a href="#">C3216X7R2J472K115AA</a> |                                     |                                     |                                     |
|   |            | ±20%           | <a href="#">C3216X7R2J472M115AA</a> |                                     |                                     |                                     |
| 6.8nF   | 1608       | 0.80±0.10      | ±10%                                |                                     |                                     | <a href="#">C1608X7R2A682K080AA</a> |
|   |            |                | ±20%                                |                                     |                                     | <a href="#">C1608X7R2A682M080AA</a> |
|   | 2012       | 0.85±0.15      | ±10%                                |                                     |                                     | <a href="#">C2012X7R2A682K085AA</a> |
|   |            |                | ±20%                                |                                     | <a href="#">C2012X7R2A682M085AA</a> |                                     |
| 3216  | 1.15±0.15  | ±10%           |                                     | <a href="#">C2012X7R2E682K125AA</a> |                                     |                                     |
|   |            | ±20%           |                                     | <a href="#">C2012X7R2E682M125AA</a> |                                     |                                     |
| 10nF  | 1608       | 0.80±0.10      | ±10%                                |                                     |                                     | <a href="#">C1608X7R2A103K080AA</a> |
|   |            |                | ±20%                                |                                     |                                     | <a href="#">C1608X7R2A103M080AA</a> |
|   | 2012       | 0.85±0.15      | ±10%                                |                                     | <a href="#">C2012X7R2E103K125AA</a> | <a href="#">C2012X7R2A103K085AA</a> |
|   |            |                | ±20%                                |                                     | <a href="#">C2012X7R2E103M125AA</a> | <a href="#">C2012X7R2A103M085AA</a> |
| 3216  | 1.15±0.15  | ±10%           | <a href="#">C3216X7R2J103K115AA</a> |                                     |                                     |                                     |
|   |            | ±20%           | <a href="#">C3216X7R2J103M115AA</a> |                                     |                                     |                                     |
| 15nF  | 1608       | 0.80±0.10      | ±10%                                |                                     |                                     | <a href="#">C1608X7R2A153K080AA</a> |
|   |            |                | ±20%                                |                                     |                                     | <a href="#">C1608X7R2A153M080AA</a> |
|   | 2012       | 1.25±0.20      | ±10%                                |                                     | <a href="#">C2012X7R2E153K125AA</a> | <a href="#">C2012X7R2A153K125AA</a> |
|   |            |                | ±20%                                |                                     | <a href="#">C2012X7R2E153M125AA</a> | <a href="#">C2012X7R2A153M125AA</a> |
| 3216  | 1.15±0.15  | ±10%           |                                     | <a href="#">C3216X7R2E153K115AA</a> |                                     |                                     |
|   |            | ±20%           |                                     | <a href="#">C3216X7R2E153M115AA</a> |                                     |                                     |
| 22nF  | 1608       | 0.80±0.10      | ±10%                                |                                     |                                     | <a href="#">C1608X7R2A223K080AA</a> |
|   |            |                | ±20%                                |                                     |                                     | <a href="#">C1608X7R2A223M080AA</a> |
|   | 2012       | 1.25±0.20      | ±10%                                |                                     | <a href="#">C2012X7R2E223K125AA</a> | <a href="#">C2012X7R2A223K125AA</a> |
|   |            |                | ±20%                                |                                     | <a href="#">C2012X7R2E223M125AA</a> | <a href="#">C2012X7R2A223M125AA</a> |
| 3216  | 1.15±0.15  | ±10%           |                                     | <a href="#">C3216X7R2E223K115AA</a> |                                     |                                     |
|   |            | ±20%           |                                     | <a href="#">C3216X7R2E223M115AA</a> |                                     |                                     |
| 33nF  | 1608       | 0.80±0.10      | ±10%                                |                                     |                                     | <a href="#">C1608X7R2A333K125AA</a> |
|   |            |                | ±20%                                |                                     |                                     | <a href="#">C2012X7R2A333M125AA</a> |
|   | 2012       | 1.25±0.20      | ±10%                                |                                     | <a href="#">C2012X7R2E333K125AA</a> | <a href="#">C2012X7R2A333K125AA</a> |
|   |            |                | ±20%                                |                                     | <a href="#">C2012X7R2E333M125AA</a> | <a href="#">C2012X7R2A333M125AA</a> |
| 3216  | 1.15±0.15  | ±10%           |                                     | <a href="#">C3216X7R2E333K115AA</a> |                                     |                                     |
|   |            | ±20%           |                                     | <a href="#">C3216X7R2E333M115AA</a> |                                     |                                     |
| Gray items: These products are not recommended for new designs. | 1608       | 0.80±0.10      | ±10%                                |                                     |                                     | <a href="#">C1608X7R2A223K125AA</a> |
|   |            |                | ±20%                                |                                     |                                     | <a href="#">C1608X7R2A223M125AA</a> |
|   | 2012       | 1.25±0.20      | ±10%                                |                                     | <a href="#">C2012X7R2E223K125AA</a> | <a href="#">C2012X7R2A223K125AA</a> |
|   |            |                | ±20%                                |                                     | <a href="#">C2012X7R2E223M125AA</a> | <a href="#">C2012X7R2A223M125AA</a> |
| 3216  | 1.15±0.15  | ±10%           |                                     | <a href="#">C3216X7R2E223K115AA</a> |                                     |                                     |
|   |            | ±20%           |                                     | <a href="#">C3216X7R2E223M115AA</a> |                                     |                                     |
| Click the part numbers for details.                             | 1608       | 0.80±0.10      | ±10%                                |                                     |                                     | <a href="#">C1608X7R2A333K125AA</a> |
|   |            |                | ±20%                                |                                     |                                     | <a href="#">C2012X7R2A333M125AA</a> |
|   | 2012       | 1.25±0.20      | ±10%                                |                                     | <a href="#">C2012X7R2E333K125AA</a> | <a href="#">C2012X7R2A333K125AA</a> |
|   |            |                | ±20%                                |                                     | <a href="#">C2012X7R2E333M125AA</a> | <a href="#">C2012X7R2A333M125AA</a> |
| 3216  | 1.15±0.15  | ±10%           |                                     | <a href="#">C3216X7R2E333K115AA</a> |                                     |                                     |
|   |            | ±20%           |                                     | <a href="#">C3216X7R2E333M115AA</a> |                                     |                                     |
| Gray items: These products are not recommended for new designs. | 1608       | 0.80±0.10      | ±10%                                |                                     |                                     | <a href="#">C1608X7R2A333K125AA</a> |
|   |            |                | ±20%                                |                                     |                                     | <a href="#">C2012X7R2A333M125AA</a> |
|   | 2012       | 1.25±0.20      | ±10%                                |                                     | <a href="#">C2012X7R2E333K125AA</a> | <a href="#">C2012X7R2A333K125AA</a> |
|   |            |                | ±20%                                |                                     | <a href="#">C2012X7R2E333M125AA</a> | <a href="#">C2012X7R2A333M125AA</a> |
| 3216  | 1.15±0.15  | ±10%           |                                     | <a href="#">C3216X7R2E333K115AA</a> |                                     |                                     |
|   |            | ±20%           |                                     | <a href="#">C3216X7R2E333M115AA</a> |                                     |                                     |
| Click the part numbers for details.                             | 1608       | 0.80±0.10      | ±10%                                |                                     |                                     | <a href="#">C1608X7R2A333K125AA</a> |
|   |            |                | ±20%                                |                                     |                                     | <a href="#">C2012X7R2A333M125AA</a> |
|   | 2012       | 1.25±0.20      | ±10%                                |                                     | <a href="#">C2012X7R2E333K125AA</a> | <a href="#">C2012X7R2A333K125AA</a> |
|   |            |                | ±20%                                |                                     | <a href="#">C2012X7R2E333M125AA</a> | <a href="#">C2012X7R2A333M125AA</a> |
| 3216  | 1.15±0.15  | ±10%           |                                     | <a href="#">C3216X7R2E333K115AA</a> |                                     |                                     |
|   |            | ±20%           |                                     | <a href="#">C3216X7R2E333M115AA</a> |                                     |                                     |

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

Click the part numbers for details.

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

## MULTILAYER CERAMIC CHIP CAPACITORS



## Capacitance range table

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

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

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

## MULTILAYER CERAMIC CHIP CAPACITORS



## Capacitance range table

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

| Capacitance | Dimensions | Thickness (mm)  | Capacitance tolerance               | Catalog number                      |                                     |
|-------------|------------|-----------------|-------------------------------------|-------------------------------------|-------------------------------------|
|             |            |                 |                                     | Rated voltage Edc: 250V             | Rated voltage Edc: 100V             |
| 1μF         | 1608       | 0.80±0.20,-0.10 | ±10%                                |                                     | <a href="#">C1608X7R2A105K080AC</a> |
|             | 3216       | 1.60±0.20       | ±10%                                |                                     | <a href="#">C3216X7R2A105K160AA</a> |
|             |            |                 | ±20%                                |                                     | <a href="#">C3216X7R2A105M160AA</a> |
|             | 3225       | 2.00±0.20       | ±10%                                |                                     | <a href="#">C3225X7R2A105K200AA</a> |
|             |            |                 | ±20%                                |                                     | <a href="#">C3225X7R2A105M200AA</a> |
|             | 4532       | 2.30±0.20       | ±10%                                |                                     | <a href="#">C4532X7R2A105K230KA</a> |
| ±20%        |            |                 |                                     | <a href="#">C4532X7R2A105M230KA</a> |                                     |
| 5750        | 2.30±0.20  | ±10%            | <a href="#">C5750X7R2E105K230KA</a> | <a href="#">C5750X7R2A105K230KA</a> |                                     |
|             |            | ±20%            | <a href="#">C5750X7R2E105M230KA</a> | <a href="#">C5750X7R2A105M230KA</a> |                                     |
| 1.5μF       | 3225       | 2.00±0.20       | ±10%                                |                                     | <a href="#">C3225X7R2A155K200AB</a> |
|             | 4532       | 2.30±0.20       | ±20%                                |                                     | <a href="#">C3225X7R2A155M200AB</a> |
|             |            |                 | ±10%                                |                                     | <a href="#">C4532X7R2A155K230KA</a> |
|             | 5750       | 2.30±0.20       | ±20%                                |                                     | <a href="#">C4532X7R2A155M230KA</a> |
| ±10%        |            |                 |                                     | <a href="#">C5750X7R2A155K230KA</a> |                                     |
| 2.2μF       | 2012       | 1.25+0.25,-0.15 | ±10%                                |                                     | <a href="#">C2012X7R2A225K125AC</a> |
|             |            |                 | ±20%                                |                                     | <a href="#">C3225X7R2A225K230AB</a> |
|             | 3225       | 2.30±0.20       | ±10%                                |                                     | <a href="#">C3225X7R2A225M230AB</a> |
|             |            |                 | ±20%                                |                                     | <a href="#">C4532X7R2A225K230KA</a> |
| 4532        | 2.30±0.20  | ±10%            |                                     | <a href="#">C4532X7R2A225M230KA</a> |                                     |
|             |            | ±20%            |                                     | <a href="#">C5750X7R2A225K230KA</a> |                                     |
| 5750        | 2.30±0.20  | ±10%            |                                     | <a href="#">C5750X7R2A225M230KA</a> |                                     |
|             |            | ±20%            |                                     | <a href="#">C5750X7R2A225M230KA</a> |                                     |
| 3.3μF       | 5750       | 2.30±0.20       | ±10%                                |                                     | <a href="#">C5750X7R2A335K230KA</a> |
|             |            |                 | ±20%                                |                                     | <a href="#">C5750X7R2A335M230KA</a> |
| 4.7μF       | 3216       | 1.60+0.30,-0.10 | ±10%                                |                                     | <a href="#">C3216X7R2A475K160AC</a> |
|             | 5750       | 2.30±0.20       | ±10%                                |                                     | <a href="#">C5750X7R2A475K230KA</a> |
| ±20%        |            |                 |                                     | <a href="#">C5750X7R2A475M230KA</a> |                                     |
| 10μF        | 3225       | 2.50+0.35,-0.30 | ±10%                                |                                     | <a href="#">C3225X7R2A106K250AC</a> |

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

## MULTILAYER CERAMIC CHIP CAPACITORS



## Capacitance range table

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

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

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

## MULTILAYER CERAMIC CHIP CAPACITORS



## Capacitance range table

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

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

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

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