

MULTILAYER CERAMIC CHIP CAPACITORS



C Series Commercial Grade General (Up to 50V)

Type:

**C0402 [EIA CC01005]
C0603 [EIA CC0201]
C1005 [EIA CC0402]
C1608 [EIA CC0603]
C2012 [EIA CC0805]
C3216 [EIA CC1206]
C3225 [EIA CC1210]
C4532 [EIA CC1812]
C5750 [EIA CC2220]**



REMINDERS

Please read before using this product

SAFETY REMINDERS

REMINDERS

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

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

(Example)

| Catalog Issued date | Catalog Number | Item Description (On Delivery Label) |
|------------------------|-----------------------|--------------------------------------|
| Prior to January 2013 | C1608C0G1E103J(080AA) | C1608C0G1E103JT000N |
| January 2013 and Later | C1608C0G1E103J080AA | C1608C0G1E103JT000N |

MULTILAYER CERAMIC CHIP CAPACITORS



C Series General (Up to 50V)

Type: C0402 [EIA CC01005], C0603 [EIA CC0201], C1005 [EIA CC0402], C1608 [EIA CC0603], C2012 [EIA CC0805], C3216 [EIA CC1206], C3225 [EIA CC1210], C4532 [EIA CC1812], C5750 [EIA CC2220]

Features

- High capacitance has been achieved through precision technologies that enable the use of multiple thinner ceramic dielectric layers.
- A monolithic structure ensures superior mechanical strength and reliability.
- Low ESL and excellent frequency characteristics allow for a circuit design that closely conforms to theoretical values.
- Low self-heating and high ripple resistance due to low ESR.

Applications

- General electronic equipment
- Mobile communication equipment
- Power supply circuit
- Office automation equipment
- TV, LED displays
- Servers, PCs, Notebooks, Tablets

Shape & Dimensions



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

Catalog Number Construction

C • 3225 • X7R • 1H • 106 • M • 250 • A • C

Series Name

Dimensions L x W (mm)

| Code | Length | Width | Terminal |
|-------|-------------|-------------|-----------|
| C0402 | 0.40 ± 0.02 | 0.20 ± 0.02 | 0.07 min. |
| C0603 | 0.60 ± 0.03 | 0.30 ± 0.03 | 0.10 min. |
| C1005 | 1.00 ± 0.05 | 0.50 ± 0.05 | 0.10 min. |
| C1608 | 1.60 ± 0.10 | 0.80 ± 0.10 | 0.20 min. |
| C2012 | 2.00 ± 0.20 | 1.25 ± 0.20 | 0.20 min. |
| C3216 | 3.20 ± 0.20 | 1.60 ± 0.20 | 0.20 min. |
| C3225 | 3.20 ± 0.40 | 2.50 ± 0.30 | 0.20 min. |
| C4532 | 4.50 ± 0.40 | 3.20 ± 0.40 | 0.20 min. |
| C5750 | 5.70 ± 0.40 | 5.00 ± 0.40 | 0.20 min. |

*Dimension tolerance are typical values

Temperature Characteristics

| Temperature Characteristics | Temperature Coefficient of Capacitance Change | Temperature Range | Rated Voltage (DC) Code | Voltage (DC) |
|-----------------------------|---|-------------------|-------------------------|--------------|
| CH | 0±60 ppm/°C | -25 to +85°C | 0G | 4V |
| C0G | 0±30 ppm/°C | -55 to +125°C | 0J | 6.3V |
| JB | ±10% | -25 to +85°C | 1A | 10V |
| X5R | ±15% | -55 to +85°C | 1C | 16V |
| X6S | ±22% | -55 to +105°C | 1E | 25V |
| X7R | ±15% | -55 to +125°C | 1V | 35V |
| X7S | ±22% | -55 to +125°C | 1H | 50V |

Nominal Capacitance (pF)

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

Ex. 0R2 = 0.2pF; 103 = 10,000pF; 105 = 1,000,000pF = 1,000nF = 1µF

Capacitance Tolerance

| Code | Tolerance |
|------|-----------|
| B | ± 0.10pF |
| C | ± 0.25pF |
| D | ± 0.50pF |
| F | ± 1% |
| G | ± 2% |
| J | ± 5% |
| K | ± 10% |
| M | ± 20% |

Nominal Thickness

| Code | Thickness | Code | Thickness |
|------|-----------|------|-----------|
| 020 | 0.20 mm | 130 | 1.30 mm |
| 030 | 0.30 mm | 160 | 1.60 mm |
| 050 | 0.50 mm | 200 | 2.00 mm |
| 060 | 0.60 mm | 230 | 2.30 mm |
| 080 | 0.80 mm | 250 | 2.50 mm |
| 085 | 0.85 mm | 280 | 2.80 mm |
| 115 | 1.15 mm | 320 | 3.20 mm |
| 125 | 1.25 mm | | |

Packaging Style

| Code | Style |
|------|-------------------------|
| A | 178 mm Reel, 4 mm Pitch |
| B | 178 mm Reel, 2 mm Pitch |
| K | 178 mm Reel, 8 mm Pitch |

Special Reserved Code

| Code | Description |
|---------|-------------------|
| A, B, C | TDK Internal Code |

⚠ 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

EIA CC01005 [C0402]

Capacitance Range Chart

Temperature Characteristics: C0G (0±30ppm/°C), CH (0±60ppm/°C), JB (±10%)

Rated Voltage: 16V (1C), 10V (1A), 6.3V (0J), 4.0V (0G)

| Capacitance | | Tolerance | C0G | | JB | | | |
|-------------|------|---------------------------|----------|----------|----------|----------|-----------|---------|
| (pF) | Code | | 1C (16V) | 1C (16V) | 1C (16V) | 1A (10V) | 0J (6.3V) | 0G (4V) |
| 0.5 | 0R5 | C:±0.25pF | █ | █ | | | | |
| 0.75 | R75 | | | | | | | |
| 1 | 010 | | | | | | | |
| 1.5 | 1R5 | | | | | | | |
| 2 | 020 | | | | | | | |
| 2.2 | 2R2 | | | | | | | |
| 3 | 030 | | | | | | | |
| 3.3 | 3R3 | | | | | | | |
| 4 | 040 | | | | | | | |
| 4.7 | 4R7 | | | | | | | |
| 5 | 050 | | | | | | | |
| 6 | 060 | D:±0.50pF | █ | █ | | | | |
| 6.8 | 6R8 | | | | | | | |
| 7 | 070 | | | | | | | |
| 8 | 080 | | | | | | | |
| 9 | 090 | | | | | | | |
| 10 | 100 | | | | | | | |
| 12 | 120 | J:±5% K:±10% M:±20% | █ | █ | █ | | | |
| 15 | 150 | | | | | | | |
| 18 | 180 | | | | | | | |
| 22 | 220 | | | | | | | |
| 27 | 270 | | | | | | | |
| 33 | 330 | | | | | | | |
| 39 | 390 | | | | | | | |
| 47 | 470 | | | | | | | |
| 56 | 560 | | | | | | | |
| 68 | 680 | | | | | | | |
| 82 | 820 | | | | | | | |
| 100 | 101 | | | | | | | |
| 150 | 151 | K:±10% M:±20% | | | █ | | | |
| 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

█ 0.20 mm

█ Background gray: The product which is not recommended to a new design

█ Background red: The product which is planning to stop production * Please confirm the schedule on product details information.

█ Please refer to a capacitance range table after P-21 for the details such as product thickness, a capacitance tolerance.

⚠ 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

EIA CC01005 [C0402]

Capacitance Range Chart

Temperature Characteristics: X5R ($\pm 15\%$), X6S ($\pm 22\%$), X7R ($\pm 15\%$)

Rated Voltage: 16V (1C), 10V (1A), 6.3V (0J), 4V (0G)

| Capacitance | | Tolerance | X5R | | | | X6S | | | X7R | | |
|-------------|------|--------------------------------|-------------|-------------|--------------|------------|-------------|--------------|------------|-------------|--------------|------------|
| (pF) | Code | | 1C (16V) | 1A (10V) | 0J (6.3V) | 0G (4V) | 1A (10V) | 0J (6.3V) | 0G (4V) | 1A (10V) | 0J (6.3V) | 0G (4V) |
| 100 | 101 | K: $\pm 10\%$ M: $\pm 20\%$ | █ | | | | █ | █ | █ | █ | █ | █ |
| 150 | 151 | | | | | | | | | | | |
| 220 | 221 | | | | | | | | | | | |
| 330 | 331 | | | | | | | | | | | |
| 470 | 471 | | | | | | | | | | | |
| 680 | 681 | | | | | | | | | | | |
| 1,000 | 102 | M: $\pm 20\%$ | | █ | █ | █ | | | | █ | | |
| 1,500 | 152 | | | | | | | | | | | |
| 2,200 | 222 | | | | | | | | | | | |
| 3,300 | 332 | | | █ | █ | █ | | | | | | |
| 4,700 | 472 | | | | | | | | | | | |
| 6,800 | 682 | | | | | | | | | | | |
| 10,000 | 103 | | | | | | | | | | | |
| 22,000 | 223 | | | | | | | | | | | |
| 47,000 | 473 | | | | | | | | | | | |
| 100,000 | 104 | | | | | | | | | | | |
| 220,000 | 224 | | | | | | | | | | | |

Standard
Thickness
█ 0.20 mm

█ Background gray: The product which is not recommended to a new design

█ Background red: The product which is planning to stop production * Please confirm the schedule on product details information.

█ Please refer to a capacitance range table after P-21 for the details such as product thickness, a capacitance tolerance.

MULTILAYER CERAMIC CHIP CAPACITORS



Capacitance Range Chart

EIA CC0201 [C0603]

Capacitance Range Chart

Temperature Characteristics: C0G (0±30ppm/°C), CH (0±60ppm/°C), JB (±10%), X5R (±15%)

Rated Voltage: 50V (1H), 25V (1E), 16V (1C), 10V (1A), 6.3V (0J), 4V (0G)

| Capacitance | | Tolerance | C0G | | CH | | JB | | | | X5R | | | | | |
|-------------|------|------------------|---------------------------|----------|----------|----------|----------|----------|----------|-----------|----------|----------|----------|-----------|---------|--|
| (pF) | Code | | 1H (50V) | 1E (25V) | 1H (50V) | 1E (25V) | 1E (25V) | 1C (16V) | 1A (10V) | 0J (6.3V) | 1E (25V) | 1C (16V) | 1A (10V) | 0J (6.3V) | 0G (4V) | |
| 0.5 | 0R5 | C:±0.25pF | █ | █ | █ | █ | | | | | | | | | | |
| 0.75 | R75 | | | | | | | | | | | | | | | |
| 1 | 010 | | | | | | | | | | | | | | | |
| 1.5 | 1R5 | | | | | | | | | | | | | | | |
| 2 | 020 | | | | | | | | | | | | | | | |
| 2.2 | 2R2 | | | | | | | | | | | | | | | |
| 3 | 030 | | | | | | | | | | | | | | | |
| 3.3 | 3R3 | | | | | | | | | | | | | | | |
| 4 | 040 | | | | | | | | | | | | | | | |
| 4.7 | 4R7 | | | | | | | | | | | | | | | |
| 5 | 050 | D:±0.50pF | █ | █ | █ | █ | | | | | | | | | | |
| 6 | 060 | | | | | | | | | | | | | | | |
| 6.8 | 6R8 | | | | | | | | | | | | | | | |
| 7 | 070 | | | | | | | | | | | | | | | |
| 8 | 080 | | | | | | | | | | | | | | | |
| 9 | 090 | | | | | | | | | | | | | | | |
| 10 | 100 | | | | | | | | | | | | | | | |
| 12 | 120 | | J:±5% K:±10% M:±20% | █ | █ | █ | █ | | | | | | | | | |
| 15 | 150 | | | | | | | | | | | | | | | |
| 18 | 180 | | | | | | | | | | | | | | | |
| 22 | 220 | | | | | | | | | | | | | | | |
| 27 | 270 | | | | | | | | | | | | | | | |
| 33 | 330 | | | | | | | | | | | | | | | |
| 39 | 390 | | | | | | | | | | | | | | | |
| 47 | 470 | | | | | | | | | | | | | | | |
| 56 | 560 | | | | | | | | | | | | | | | |
| 68 | 680 | | | | | | | | | | | | | | | |
| 82 | 820 | | | | | | | | | | | | | | | |
| 100 | 101 | K:±10% M:±20% | | | | | █ | | | | █ | | | | | |
| 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 | | | | | | | | | | | | | | | |
| 15,000 | 153 | | | | | | | | | | | | | | | |
| 22,000 | 223 | | | | | | | | | | | | | | | |
| 33,000 | 333 | | | | | | | | | | | | | | | |
| 47,000 | 473 | | | | | | | | | | | | | | | |
| 68,000 | 683 | | | | | | | | | | | | | | | |
| 100,000 | 104 | | | | | | | | | | | | | | | |
| 150,000 | 154 | | | | | | | | | | | | | | | |
| 220,000 | 224 | | | | | | | | | | | | | | | |
| 330,000 | 334 | | | | | | | | | | | | | | | |
| 470,000 | 474 | | | | | | | | | | | | | | | |
| 1,000,000 | 105 | M:±20% | | | | | | | | | | | | | | |
| 2,200,000 | 225 | | | | | | | | | | | | | | | |

Standard Thickness 0.30 mm

Background gray: The product which is not recommended to a new design

Background red: The product which is planning to stop production * Please confirm the schedule on product details information.

Please refer to a capacitance range table after P-21 for the details such as product thickness, a capacitance tolerance.

⚠ 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

EIA CC0201 [C0603]

Capacitance Range Chart

Temperature Characteristics: X6S (±22%), X7R (±15%), X7S (±22%)

Rated Voltage: 25V (1E), 16V (1C), 10V (1A), 6.3V (0J), 4V (0G)

| Capacitance | | Tolerance | X6S | | | | | X7R | | | | X7S | | |
|-------------|------|------------------|----------|----------|----------|-----------|---------|----------|----------|----------|-----------|----------|-----------|---------|
| (pF) | Code | | 1E (25V) | 1C (16V) | 1A (10V) | 0J (6.3V) | 0G (4V) | 1E (25V) | 1C (16V) | 1A (10V) | 0J (6.3V) | 1A (10V) | 0J (6.3V) | 0G (4V) |
| 100 | 101 | K:±10% M:±20% | | | | | | ■ | | | | | | |
| 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 | | | ■ | ■ | ■ | ■ | | ■ | ■ | ■ | | | |
| 10,000 | 103 | | | | | | | | | | | | | |
| 22,000 | 223 | | | ■ | ■ | ■ | ■ | | | | | ■ | ■ | |
| 47,000 | 473 | | | | | | | | | | | | | |
| 68,000 | 683 | | | | | | | | | | | | | |
| 100,000 | 104 | | ■ | ■ | ■ | ■ | | | | | ■ | ■ | ■ | |
| 150,000 | 154 | | | | | | | | | | | ■ | ■ | |
| 220,000 | 224 | | | | | | | | | | | ■ | ■ | |
| 330,000 | 334 | | | | | | | | | | | | | |
| 470,000 | 474 | M:±20% | | | | | | | | | | | | |

Standard Thickness 0.30 mm

Background gray: The product which is not recommended to a new design

Background red: The product which is planning to stop production * Please confirm the schedule on product details information.

■ Please refer to a capacitance range table after P-21 for the details such as product thickness, a capacitance tolerance.

⚠ 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

EIA CC0402 [C1005]

Capacitance Range Chart

Temperature Characteristics: C0G ($0\pm 30\text{ppm}/^\circ\text{C}$), CH ($0\pm 60\text{ppm}/^\circ\text{C}$)

Rated Voltage: 50V (1H), 25V (1E)

| Capacitance | | Tolerance | C0G | | CH |
|-------------|------|---|----------|----------|----------|
| (pF) | Code | | 1H (50V) | 1E (25V) | 1H (50V) |
| 0.5 | 0R5 | B: $\pm 0.10\text{pF}$ C: $\pm 0.25\text{pF}$ | | | |
| 0.75 | R75 | | | | |
| 1 | 010 | | | | |
| 1.5 | 1R5 | | | | |
| 2 | 020 | | | | |
| 3 | 030 | C: $\pm 0.25\text{pF}$ D: $\pm 0.50\text{pF}$ | | | |
| 4 | 040 | | | | |
| 5 | 050 | | | | |
| 6 | 060 | | | | |
| 7 | 070 | | | | |
| 8 | 080 | F: $\pm 1\%$ G: $\pm 2\%$ J: $\pm 5\%$ | | | |
| 9 | 090 | | | | |
| 10 | 100 | | | | |
| 12 | 120 | | | | |
| 15 | 150 | | | | |
| 18 | 180 | | | | |
| 22 | 220 | | | | |
| 27 | 270 | | | | |
| 33 | 330 | | | | |
| 39 | 390 | | | | |
| 47 | 470 | F: $\pm 1\%$ G: $\pm 2\%$ J: $\pm 5\%$ K: $\pm 10\%$ | | | |
| 56 | 560 | | | | |
| 68 | 680 | | | | |
| 82 | 820 | | | | |
| 100 | 101 | | | | |
| 120 | 121 | | | | |
| 150 | 151 | | | | |
| 180 | 181 | | | | |
| 220 | 221 | | | | |
| 270 | 271 | | | | |
| 330 | 331 | | | | |
| 390 | 391 | | | | |
| 470 | 471 | | | | |
| 560 | 561 | | | | |
| 680 | 681 | | | | |
| 820 | 821 | | | | |
| 1,000 | 102 | | | | |

Standard Thickness

 0.50 mm

 Background gray: The product which is not recommended to a new design

 Please refer to a capacitance range table after P-21 for the details such as product thickness, a capacitance tolerance.

Capacitance Range Chart

EIA CC0402 [C1005]

Capacitance Range Chart

Temperature Characteristics: JB ($\pm 10\%$)

Rated Voltage: 50V (1H), 35V (1V), 25V (1E), 16V (1C), 10V (1A), 6.3V (0J), 4V (0G)

| Capacitance | | Tolerance | JB | | | | | | |
|-------------|------|--------------------------------|-------------|-------------|-------------|-------------|-------------|--------------|------------|
| (pF) | Code | | 1H (50V) | 1V (35V) | 1E (25V) | 1C (16V) | 1A (10V) | 0J (6.3V) | 0G (4V) |
| 220 | 221 | K: $\pm 10\%$ M: $\pm 20\%$ | ■ | | | | | | |
| 330 | 331 | | | | | | | | |
| 470 | 471 | | | | | | | | |
| 680 | 681 | | | | | | | | |
| 1,000 | 102 | | | | | | | | |
| 1,500 | 152 | | | | | | | | |
| 2,200 | 222 | | | | | | | | |
| 3,300 | 332 | | | | | | | | |
| 4,700 | 472 | | | | | | | | |
| 6,800 | 682 | | | | | | | | |
| 10,000 | 103 | | | ■ | | | | | |
| 15,000 | 153 | | | ■ | ■ | | | | |
| 22,000 | 223 | | | ■ | ■ | | | | |
| 33,000 | 333 | | | ■ | ■ | | | | |
| 47,000 | 473 | | | ■ | ■ | | | | |
| 68,000 | 683 | | | ■ | ■ | | | | |
| 100,000 | 104 | | | ■ | ■ | | | | |
| 150,000 | 154 | | | ■ | ■ | | | | |
| 220,000 | 224 | | | ■ | ■ | | | | |
| 330,000 | 334 | | | ■ | ■ | | | | |
| 470,000 | 474 | | | ■ | ■ | | | | |
| 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
■ 0.50 mm

■ Background gray: The product which is not recommended to a new design

■ Background red: The product which is planning to stop production * Please confirm the schedule on product details information.

■ Please refer to a capacitance range table after P-21 for the details such as product thickness, a capacitance tolerance.

MULTILAYER CERAMIC CHIP CAPACITORS



Capacitance Range Chart

EIA CC0402 [C1005]

Capacitance Range Chart

Temperature Characteristics: X5R (±15%)

Rated Voltage: 50V (1H), 35V (1V), 25V (1E), 16V (1C), 10V (1A), 6.3V(0J), 4V (0G)



Capacitance Range Chart

Temperature Characteristics: X6S (±22%)

Rated Voltage: 50V (1H), 35V (1V), 25V (1E), 16V (1C), 10V (1A), 6.3V(0J), 4V (0G)



█ Background gray: The product which is not recommended to a new design

█ Background red: The product which is planning to stop production * Please confirm the schedule on product details information.

█ Please refer to a capacitance range table after P-21 for the details such as product thickness, a capacitance tolerance.

⚠ 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

EIA CC0402 [C1005]

Capacitance Range Chart

Temperature Characteristics: X7R(±15%), X7S(±22%)

Rated Voltage: 50V(1H), 35V(1V), 25V(1E), 16V(1C), 10V (1A), 6.3V(0J), 4V (0G)



Standard Thickness
█ 0.50 mm

█ Background gray: The product which is not recommended to a new design

█ Please refer to a capacitance range table after P-21 for the details such as product thickness, a capacitance tolerance.

⚠ 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

EIA CC0603 [C1608]

Capacitance Range Chart

Temperature Characteristics: C0G (0±30ppm/°C), CH(0±60ppm/°C)

Rated Voltage: 50V (1H), 35V(1V), 25V (1E)

| Capacitance | | Tolerance | C0G | | | CH | |
|-------------|------|-----------------------------------|-------------|-------------|-------------|-------------|-------------|
| (pF) | Code | | 1H (50V) | 1V (35V) | 1E (25V) | 1H (50V) | 1V (35V) |
| 0.5 | 0R5 | C:±0.25pF | | | | | |
| 0.75 | R75 | | | | | | |
| 1 | 010 | | | | | | |
| 1.5 | 1R5 | | | | | | |
| 2 | 020 | | | | | | |
| 3 | 030 | | | | | | |
| 4 | 040 | | | | | | |
| 5 | 050 | | | | | | |
| 6 | 060 | C:±0.25pF D:±0.50pF | | | | | |
| 7 | 070 | | | | | | |
| 8 | 080 | | | | | | |
| 9 | 090 | | | | | | |
| 10 | 100 | | | | | | |
| 12 | 120 | F:±1% G:±2% J:±5% K:±10% | | | | | |
| 15 | 150 | | | | | | |
| 18 | 180 | | | | | | |
| 22 | 220 | | | | | | |
| 27 | 270 | | | | | | |
| 33 | 330 | | | | | | |
| 39 | 390 | | | | | | |
| 47 | 470 | | | | | | |
| 56 | 560 | | | | | | |
| 68 | 680 | | | | | | |
| 82 | 820 | | | | | | |
| 100 | 101 | | | | | | |
| 120 | 121 | | | | | | |
| 150 | 151 | | | | | | |
| 180 | 181 | | | | | | |
| 220 | 221 | | | | | | |
| 270 | 271 | | | | | | |
| 330 | 331 | | | | | | |
| 390 | 391 | | | | | | |
| 470 | 471 | | | | | | |
| 560 | 561 | | | | | | |
| 680 | 681 | | | | | | |
| 820 | 821 | | | | | | |
| 1,000 | 102 | J:±5% K:±10% | | | | | |
| 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 | | | | | | |
| 18,000 | 183 | | | | | | |

Standard Thickness

0.80 mm

Background gray: The product which is not recommended to a new design

Please refer to a capacitance range table after P-21 for the details such as product thickness, a capacitance tolerance.

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

EIA CC0603 [C1608]

Capacitance Range Chart

Temperature Characteristics: JB(±10%)

Rated Voltage: 50V (1H), 35V (1V), 25V (1E), 16V (1C), 10V (1A), 6.3V (0J), 4V (0G)

| Capacitance | | Tolerance | JB | | | | | | |
|-------------|------|------------------|----------|----------|----------|----------|----------|-----------|---------|
| (pF) | Code | | 1H (50V) | 1V (35V) | 1E (25V) | 1C (16V) | 1A (10V) | 0J (6.3V) | 0G (4V) |
| 10,000 | 103 | K:±10% M:±20% | █ | | | | | | |
| 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 | | | | | | | | |
| 6,800,000 | 685 | | | | | | | | |
| 10,000,000 | 106 | M:±20% | | | | | | | |
| 15,000,000 | 156 | | | | | | | | |
| 22,000,000 | 226 | | | | | | | | |

Standard Thickness
█ 0.80 mm

Capacitance Range Chart

Temperature Characteristics: X5R (±15%)

Rated Voltage: 50V (1H), 35V (1V), 25V (1E), 16V (1C), 10V (1A), 6.3V (0J), 4V (0G)

| Capacitance | | Tolerance | X5R | | | | | | |
|-------------|------|------------------|----------|----------|----------|----------|----------|-----------|---------|
| (pF) | Code | | 1H (50V) | 1V (35V) | 1E (25V) | 1C (16V) | 1A (10V) | 0J (6.3V) | 0G (4V) |
| 10,000 | 103 | K:±10% M:±20% | █ | | | | | | |
| 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 | | | | | | | | |
| 6,800,000 | 685 | | | | | | | | |
| 10,000,000 | 106 | M:±20% | | | | | | | |
| 15,000,000 | 156 | | | | | | | | |
| 22,000,000 | 226 | | | | | | | | |

Standard Thickness
█ 0.80 mm

█ Background gray: The product which is not recommended to a new design

█ Background red: The product which is planning to stop production * Please confirm the schedule on product details information.

█ Please refer to a capacitance range table after P-21 for the details such as product thickness, a capacitance tolerance.

⚠ 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

EIA CC0603 [C1608]

Capacitance Range Chart

Temperature Characteristics: X6S ($\pm 22\%$)

Rated Voltage: 50V (1H), 35V (1V), 25V (1E), 16V (1C), 10V (1A), 6.3V (0J), 4V (0G)



Capacitance Range Chart

Temperature Characteristics: X7R ($\pm 15\%$), X7S ($\pm 22\%$)

Rated Voltage: 50V (1H), 35V (1V), 25V (1E), 16V (1C), 10V (1A), 6.3V (0J), 4V (0G)



■ Background gray: The product which is not recommended to a new design

■ Please refer to a capacitance range table after P-21 for the details such as product thickness, a capacitance tolerance.

MULTILAYER CERAMIC CHIP CAPACITORS



Capacitance Range Chart

EIA CC0805 [C2012]

Capacitance Range Chart

Temperature Characteristics: C0G (0±30ppm/°C), CH (0±60ppm/°C), JB (±10%)

Rated Voltage: 50V (1H), 35V (1V), 25V (1E), 16V (1C), 10V (1A), 6.3V (0J)

| Capacitance | | Tolerance | C0G | | | CH | | JB | | | | | |
|-------------|------|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| (pF) | Code | | 1H (50V) | 1V (35V) | 1E (25V) | 1H (50V) | 1V (35V) | 1H (50V) | 1V (35V) | 1E (25V) | 1C (16V) | 1A (10V) | 0J (6.3V) |
| 1,000 | 102 | J:±5% K:±10% | █ | | | █ | | | | | | | |
| 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 | | | | | █ | | | | | | | |
| 18,000 | 183 | | █ | | | █ | | | | | | | |
| 22,000 | 223 | | █ | | | █ | | | | | | | |
| 27,000 | 273 | | | | | | | | | | | | |
| 30,000 | 303 | | | | | | | | | | | | |
| 33,000 | 333 | | █ | | | █ | | | | | | | |
| 100,000 | 104 | K:±10% M:±20% | | | | | | █ | | | | | |
| 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 | M:±20% | | | | | | █ | | | | | |
| 15,000,000 | 156 | | | | | | | | █ | | | | |
| 22,000,000 | 226 | | | | | | | | █ | | | | |
| 33,000,000 | 336 | | | | | | | | █ | | | | |
| 47,000,000 | 476 | | | | | | | | █ | | | | |

Standard Thickness █ 0.60 mm █ 0.85 mm █ 1.25 mm

█ Background gray: The product which is not recommended to a new design

█ Background red: The product which is planning to stop production * Please confirm the schedule on product details information.

█ Please refer to a capacitance range table after P-21 for the details such as product thickness, a capacitance tolerance.

⚠ 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

EIA CC0805 [C2012]

Capacitance Range Chart

Temperature Characteristics: X5R ($\pm 15\%$)

Rated Voltage: 50V (1H), 35V (1V), 25V (1E), 16V (1C), 10V (1A), 6.3V (0J), 4V (0G)



Standard Thickness

 0.85 mm

 1.25 mm

Capacitance Range Chart

Temperature Characteristics: X6S ($\pm 22\%$)

Rated Voltage: 50V (1H), 35V (1V), 25V (1E), 16V (1C), 10V (1A), 6.3V (0J), 4V (0G)



Standard Thickness

 0.85 mm

 1.25 mm

 Background gray: The product which is not recommended to a new design

 Background red: The product which is planning to stop production * Please confirm the schedule on product details information.

■ Please refer to a capacitance range table after P-21 for the details such as product thickness, a capacitance tolerance.

MULTILAYER CERAMIC CHIP CAPACITORS TDK

Capacitance Range Chart

EIA CC0805 [C2012]

Capacitance Range Chart

Temperature Characteristics: X7R (±15%), X7S (±22%)

Rated Voltage: 50V (1H), 35V (1V), 25V (1E), 16V (1C), 10V (1A), 6.3V (0J), 4V (0G)

| Capacitance | | Tolerance | X7R | | | | | | X7S | | | | |
|-------------|------|-----------|----------|----------|----------|----------|----------|-----------|----------|----------|-----------|---------|--|
| (pF) | Code | | 1H (50V) | 1V (35V) | 1E (25V) | 1C (16V) | 1A (10V) | 0J (6.3V) | 1C (16V) | 1A (10V) | 0J (6.3V) | 0G (4V) | |
| 100,000 | 104 | K:±10% | | | | | | | | | | | |
| 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 | | M:±20% | | | | | | | | | | |
| 15,000,000 | 156 | | | | | | | | | | | | |
| 22,000,000 | 226 | | | | | | | | | | | | |

Standard Thickness
 0.85 mm
 1.25 mm

Background gray: The product which is not recommended to a new design

Please refer to a capacitance range table after P-21 for the details such as product thickness, a capacitance tolerance.

MULTILAYER CERAMIC CHIP CAPACITORS



Capacitance Range Chart

EIA CC1206 [C3216]

Capacitance Range Chart

Temperature Characteristics: C0G (0±30ppm/°C), CH (0±60ppm/°C), JB (±10%)

Rated Voltage: 50V (1H), 35V (1V), 25V (1E), 16V (1C), 10V (1A), 6.3V (0J)

| Capacitance | | Tolerance | C0G | | JB | | | | | | | |
|-------------|------|------------------|----------|----------|----------|----------|----------|----------|----------|-----------|--|--|
| (pF) | Code | | 1H (50V) | 1H (50V) | 1H (50V) | 1V (35V) | 1E (25V) | 1C (16V) | 1A (10V) | 0J (6.3V) | | |
| 3,900 | 392 | J:±5% K:±10% | █ | █ | | | | | | | | |
| 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 | K:±10% M:±20% | | | █ | | | | | | | |
| 1,500,000 | 155 | | | | | | | | | | | |
| 2,200,000 | 225 | | | | | | | | | | | |
| 3,300,000 | 335 | | | | | | | | | | | |
| 4,700,000 | 475 | | | | | | | | | | | |
| 6,800,000 | 685 | | | | | | | | | | | |
| 10,000,000 | 106 | M:±20% | | | | | | | | | | |
| 15,000,000 | 156 | | | | | | | | | | | |
| 22,000,000 | 226 | | | | | | | | | | | |
| 33,000,000 | 336 | | | | | | | | | | | |
| 47,000,000 | 476 | | | | | | | | | | | |
| 68,000,000 | 686 | | | | | | | | | | | |
| 100,000,000 | 107 | | | | | | | | | | | |

Standard Thickness

- █ 0.60 mm
- █ 0.85 mm
- █ 1.15 mm
- █ 1.30 mm
- █ 1.60 mm

Capacitance Range Chart

Temperature Characteristics: X5R (±15%)

Rated Voltage: 50V (1H), 35V (1V), 25V (1E), 16V (1C), 10V (1A), 6.3V (0J), 4V (0G)

| Capacitance | | Tolerance | X5R | | | | | | | | |
|-------------|------|------------------|----------|----------|----------|----------|----------|-----------|---------|--|--|
| (pF) | Code | | 1H (50V) | 1V (35V) | 1E (25V) | 1C (16V) | 1A (10V) | 0J (6.3V) | 0G (4V) | | |
| 1,000,000 | 105 | K:±10% M:±20% | █ | | | | | | | | |
| 1,500,000 | 155 | | | | | | | | | | |
| 2,200,000 | 225 | | | | | | | | | | |
| 3,300,000 | 335 | | | | | | | | | | |
| 4,700,000 | 475 | | | | | | | | | | |
| 6,800,000 | 685 | | | | | | | | | | |
| 10,000,000 | 106 | M:±20% | | | | | | | | | |
| 15,000,000 | 156 | | | | | | | | | | |
| 22,000,000 | 226 | | | | | | | | | | |
| 33,000,000 | 336 | | | | | | | | | | |
| 47,000,000 | 476 | | | | | | | | | | |
| 68,000,000 | 686 | | | | | | | | | | |
| 100,000,000 | 107 | | | | | | | | | | |

Standard Thickness

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

█ Background red: The product which is planning to stop production * Please confirm the schedule on product details information.

█ Please refer to a capacitance range table after P-21 for the details such as product thickness, a capacitance tolerance.

⚠ 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

EIA CC1206 [C3216]

Capacitance Range Chart

Temperature Characteristics: X6S ($\pm 22\%$)

Rated Voltage: 50V (1H), 35V (1V), 25V (1E), 16V (1C), 10V (1A), 6.3V (0J), 4V (0G)



Capacitance Range Chart

Temperature Characteristics: X7R ($\pm 15\%$), X7S ($\pm 22\%$)

Rated Voltage: 50V (1H), 35V (1V), 25V (1E), 16V (1C), 10V (1A), 6.3V (0J), 4V (0G)



■ Please refer to a capacitance range table after P-21 for the details such as product thickness, a capacitance tolerance.

MULTILAYER CERAMIC CHIP CAPACITORS TDK

Capacitance Range Chart

EIA CC1210 [C3225]

Capacitance Range Chart

Temperature Characteristics: C0G (0±30ppm/°C), CH (0±60ppm/°C), JB (±10%), X5R (±15%)

Rated Voltage: 50V (1H), 25V (1E), 16V (1C), 10V (1A), 6.3V (0J)

| Capacitance | | Tolerance | C0G | | JB | | | | | X5R | | | | | |
|-------------|------|------------------|----------|----------|----------|----------|----------|----------|-----------|----------|----------|----------|----------|-----------|--|
| (pF) | Code | | 1H (50V) | 1H (50V) | 1H (50V) | 1E (25V) | 1C (16V) | 1A (10V) | 0J (6.3V) | 1H (50V) | 1E (25V) | 1C (16V) | 1A (10V) | 0J (6.3V) | |
| 22,000 | 223 | J:±5% K:±10% | ■ | ■ | | | | | | | | | | | |
| 33,000 | 333 | | | | | | | | | | | | | | |
| 47,000 | 473 | | | | | | | | | | | | | | |
| 68,000 | 683 | | | | | | | | | | | | | | |
| 100,000 | 104 | | | | | | | | | | | | | | |
| 2,200,000 | 225 | K:±10% M:±20% | | | ■ | | | | ■ | | | | | | |
| 3,300,000 | 335 | | | | | | | | | | | | | | |
| 4,700,000 | 475 | | | | | | | | | | | | | | |
| 6,800,000 | 685 | | | | | | | | | | | | | | |
| 10,000,000 | 106 | | | | | | | | | | | | | | |
| 15,000,000 | 156 | M:±20% | | | | | | | | | | | | | |
| 22,000,000 | 226 | | | | | | | | | | | | | | |
| 33,000,000 | 336 | | | | | | | | | | | | | | |
| 47,000,000 | 476 | | | | | | | | | | | | | | |
| 68,000,000 | 686 | | | | | | | | | | | | | | |
| 100,000,000 | 107 | | | | | | | | | | | | | | |

Standard Thickness ■ 1.25 mm ■ 1.60 mm ■ 2.00 mm ■ 2.30 mm ■ 2.50 mm

Capacitance Range Chart

Temperature Characteristics: X6S (±22%), X7R (±15%), X7S (±22%)

Rated Voltage: 50V (1H), 35V (1V), 25V (1E), 16V (1C), 10V (1A), 6.3V (0J), 4V (0G)

| Capacitance | | Tolerance | X6S | | | | | | X7R | | | | X7S | | | |
|-------------|------|------------------|----------|----------|----------|----------|-----------|---------|----------|----------|----------|----------|----------|-----------|--|--|
| (pF) | Code | | 1H (50V) | 1V (35V) | 1E (25V) | 1C (16V) | 0J (6.3V) | 0G (4V) | 1H (50V) | 1E (25V) | 1C (16V) | 1A (10V) | 1H (50V) | 0J (6.3V) | | |
| 1,000,000 | 105 | K:±10% M:±20% | | | | | | | ■ | | | | | | | |
| 1,500,000 | 155 | | | | | | | | | | | | | | | |
| 2,200,000 | 225 | | | | | | | | | | | | | | | |
| 3,300,000 | 335 | | | | | | | | | | | | | | | |
| 4,700,000 | 475 | | | | | | | | | | | | | | | |
| 6,800,000 | 685 | M:±20% | ■ | ■ | ■ | | | | | | | | | | | |
| 10,000,000 | 106 | | | | | | | | | | | | | | | |
| 15,000,000 | 156 | | | | | | | | | | | | | | | |
| 22,000,000 | 226 | | | | | | | | | | | | | | | |
| 47,000,000 | 476 | | | | | | | | | | | | | | | |
| 100,000,000 | 107 | | | | | | | | | | | | | | | |

Standard Thickness ■ 1.60 mm ■ 2.00 mm ■ 2.30 mm ■ 2.50 mm

■ Please refer to a capacitance range table after P-21 for the details such as product thickness, a capacitance tolerance.

⚠ 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

EIA CC1812 [C4532]

Capacitance Range Chart

Temperature Characteristics: C0G (0±30ppm/°C), CH (0±60ppm/°C), JB (±10%)

Rated Voltage: 50V (1H), 25V (1E), 16V (1C)



Capacitance Range Chart

Temperature Characteristics: X5R (±15%), X6S (±22%), X7R (±15%)

Rated Voltage: 50V (1H), 25V (1E), 16V (1C), 10V (1A), 6.3V (0J)



■ Please refer to a capacitance range table after P-21 for the details such as product thickness, a capacitance tolerance.

⚠ 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

EIA CC2220 [C5750]

Capacitance Range Chart

Temperature Characteristics: JB ($\pm 10\%$), X5R ($\pm 15\%$), X7R ($\pm 15\%$)

Rated Voltage: 50V (1H), 25V (1E), 16V (1C), 10V (1A), 6.3V (0J)

| Capacitance | | Tolerance | JB | X5R | | | | | X7R | | |
|-------------|------|---------------|----------|----------|----------|----------|----------|-----------|----------|----------|----------|
| (pF) | Code | | 1E (25V) | 1H (50V) | 1E (25V) | 1C (16V) | 1A (10V) | 0J (6.3V) | 1H (50V) | 1E (25V) | 1C (16V) |
| 4,700,000 | 475 | K: $\pm 10\%$ | | | | | | | | | |
| 6,800,000 | 685 | | | | | | | | | | |
| 10,000,000 | 106 | M: $\pm 20\%$ | | | | | | | | | |
| 15,000,000 | 156 | | | | | | | | | | |
| 22,000,000 | 226 | | | | | | | | | | |
| 33,000,000 | 336 | | | | | | | | | | |
| 47,000,000 | 476 | | | | | | | | | | |
| 68,000,000 | 686 | | | | | | | | | | |
| 100,000,000 | 107 | | | | | | | | | | |

Standard Thickness

-  2.00 mm
-  2.30 mm
-  2.50 mm
-  2.80 mm

■ Please refer to a capacitance range table after P-21 for the details such as product thickness, a capacitance tolerance.

 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

Class 1 (Temperature Compensating)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | |
|-------------|-----------|----------------|-----------------------|------------------------|------------------------|------------------------|
| | | | | Rated Voltage Edc: 50V | Rated Voltage Edc: 25V | Rated Voltage Edc: 16V |
| 0.5 pF | 0402 | 0.20±0.02 | ±0.25pF | | | C0402C0G1C0R5C020BC |
| | 0603 | 0.30±0.03 | ±0.25pF | C0603C0G1H0R5C030BA | C0603C0G1E0R5C030BA | |
| | 1005 | 0.50±0.05 | ±0.10pF | C1005C0G1H0R5B050BA | | |
| | | | ±0.25pF | C1005C0G1H0R5C050BA | | |
| 1608 | 0.80±0.10 | ±0.25pF | C1608C0G1H0R5C080AA | | | |
| 0.75 pF | 0402 | 0.20±0.02 | ±0.25pF | | | C0402C0G1CR75C020BC |
| | 0603 | 0.30±0.03 | ±0.25pF | C0603C0G1HR75C030BA | C0603C0G1ER75C030BA | |
| | 1005 | 0.50±0.05 | ±0.10pF | C1005C0G1HR75B050BA | | |
| | | | ±0.25pF | C1005C0G1HR75C050BA | | |
| 1608 | 0.80±0.10 | ±0.25pF | C1608C0G1HR75C080AA | | | |
| 1 pF | 0402 | 0.20±0.02 | ±0.25pF | | | C0402C0G1C010C020BC |
| | 0603 | 0.30±0.03 | ±0.25pF | C0603C0G1H010C030BA | C0603C0G1E010C030BA | |
| | 1005 | 0.50±0.05 | ±0.10pF | C1005C0G1H010B050BA | | |
| | | | ±0.25pF | C1005C0G1H010C050BA | | |
| 1608 | 0.80±0.10 | ±0.25pF | C1608C0G1H010C080AA | | | |
| 1.5 pF | 0402 | 0.20±0.02 | ±0.25pF | | | C0402C0G1C1R5C020BC |
| | 0603 | 0.30±0.03 | ±0.25pF | C0603C0G1H1R5C030BA | C0603C0G1E1R5C030BA | |
| | 1005 | 0.50±0.05 | ±0.10pF | C1005C0G1H1R5B050BA | | |
| | | | ±0.25pF | C1005C0G1H1R5C050BA | | |
| 1608 | 0.80±0.10 | ±0.25pF | C1608C0G1H1R5C080AA | | | |
| 2 pF | 0402 | 0.20±0.02 | ±0.25pF | | | C0402C0G1C020C020BC |
| | 0603 | 0.30±0.03 | ±0.25pF | C0603C0G1H020C030BA | C0603C0G1E020C030BA | |
| | 1005 | 0.50±0.05 | ±0.10pF | C1005C0G1H020B050BA | | |
| | | | ±0.25pF | C1005C0G1H020C050BA | | |
| 1608 | 0.80±0.10 | ±0.25pF | C1608C0G1H020C080AA | | | |
| 2.2 pF | 0402 | 0.20±0.02 | ±0.25pF | | | C0402C0G1C2R2C020BC |
| | 0603 | 0.30±0.03 | ±0.25pF | C0603C0G1H2R2C030BA | C0603C0G1E2R2C030BA | |
| 3 pF | 0402 | 0.20±0.02 | ±0.25pF | | | C0402C0G1C030C020BC |
| | 0603 | 0.30±0.03 | ±0.25pF | C0603C0G1H030C030BA | C0603C0G1E030C030BA | |
| | 1005 | 0.50±0.05 | ±0.10pF | C1005C0G1H030B050BA | | |
| | | | ±0.25pF | C1005C0G1H030C050BA | | |
| 1608 | 0.80±0.10 | ±0.25pF | C1608C0G1H030C080AA | | | |
| 3.3 pF | 0402 | 0.20±0.02 | ±0.25pF | | | C0402C0G1C3R3C020BC |
| | 0603 | 0.30±0.03 | ±0.25pF | C0603C0G1H3R3C030BA | C0603C0G1E3R3C030BA | |
| 4 pF | 0402 | 0.20±0.02 | ±0.25pF | | | C0402C0G1C040C020BC |
| | 0603 | 0.30±0.03 | ±0.25pF | C0603C0G1H040C030BA | C0603C0G1E040C030BA | |
| | 1005 | 0.50±0.05 | ±0.10pF | C1005C0G1H040B050BA | | |
| | | | ±0.25pF | C1005C0G1H040C050BA | | |
| 1608 | 0.80±0.10 | ±0.25pF | C1608C0G1H040C080AA | | | |
| 4.7 pF | 0402 | 0.20±0.02 | ±0.25pF | | | C0402C0G1C4R7C020BC |
| | 0603 | 0.30±0.03 | ±0.25pF | C0603C0G1H4R7C030BA | C0603C0G1E4R7C030BA | |
| 5 pF | 0402 | 0.20±0.02 | ±0.25pF | | | C0402C0G1C050C020BC |
| | 0603 | 0.30±0.03 | ±0.25pF | C0603C0G1H050C030BA | C0603C0G1E050C030BA | |
| | 1005 | 0.50±0.05 | ±0.10pF | C1005C0G1H050B050BA | | |
| | | | ±0.25pF | C1005C0G1H050C050BA | | |
| 1608 | 0.80±0.10 | ±0.25pF | C1608C0G1H050C080AA | | | |
| 6 pF | 0402 | 0.20±0.02 | ±0.50pF | | | C0402C0G1C060D020BC |
| | 0603 | 0.30±0.03 | ±0.50pF | C0603C0G1H060D030BA | C0603C0G1E060D030BA | |
| | 1005 | 0.50±0.05 | ±0.25pF | C1005C0G1H060C050BA | | |
| | | | ±0.50pF | C1005C0G1H060D050BA | | |
| 1608 | 0.80±0.10 | ±0.25pF | C1608C0G1H060C080AA | | | |
| 6.8 pF | 0402 | 0.20±0.02 | ±0.50pF | | | C0402C0G1C6R8D020BC |
| | 0603 | 0.30±0.03 | ±0.50pF | C0603C0G1H6R8D030BA | C0603C0G1E6R8D030BA | |
| 7 pF | 0402 | 0.20±0.02 | ±0.50pF | | | C0402C0G1C070D020BC |
| | 0603 | 0.30±0.03 | ±0.50pF | C0603C0G1H070D030BA | C0603C0G1E070D030BA | |
| | 1005 | 0.50±0.05 | ±0.25pF | C1005C0G1H070C050BA | | |
| | | | ±0.50pF | C1005C0G1H070D050BA | | |
| 1608 | 0.80±0.10 | ±0.25pF | C1608C0G1H070C080AA | | | |
| | | | ±0.50pF | C1608C0G1H070D080AA | | |

■ The gray items are non-recommended products in the new design.

⚠ 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

Class 1 (Temperature Compensating)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | |
|-------------|-----------|----------------|-----------------------|------------------------|------------------------|------------------------|
| | | | | Rated Voltage Edc: 50V | Rated Voltage Edc: 25V | Rated Voltage Edc: 16V |
| 8 pF | 0402 | 0.20±0.02 | ±0.50pF | | | C0402C0G1C080D020BC |
| | 0603 | 0.30±0.03 | ±0.50pF | C0603C0G1H080D030BA | C0603C0G1E080D030BA | |
| | | | ±0.25pF | C1005C0G1H080C050BA | | |
| | 1005 | 0.50±0.05 | ±0.50pF | C1005C0G1H080D050BA | | |
| | | | ±0.25pF | C1608C0G1H080C080AA | | |
| 1608 | 0.80±0.10 | ±0.50pF | C1608C0G1H080D080AA | | | |
| 9 pF | 0402 | 0.20±0.02 | ±0.50pF | | | C0402C0G1C090D020BC |
| | 0603 | 0.30±0.03 | ±0.50pF | C0603C0G1H090D030BA | C0603C0G1E090D030BA | |
| | | | ±0.25pF | C1005C0G1H090C050BA | | |
| | 1005 | 0.50±0.05 | ±0.50pF | C1005C0G1H090D050BA | | |
| | | | ±0.25pF | C1608C0G1H090C080AA | | |
| 1608 | 0.80±0.10 | ±0.50pF | C1608C0G1H090D080AA | | | |
| 10 pF | 0402 | 0.20±0.02 | ±0.50pF | | | C0402C0G1C100D020BC |
| | 0603 | 0.30±0.03 | ±0.50pF | C0603C0G1H100D030BA | C0603C0G1E100D030BA | |
| | | | ±0.25pF | C1005C0G1H100C050BA | | |
| | 1005 | 0.50±0.05 | ±0.50pF | C1005C0G1H100D050BA | | |
| | | | ±0.25pF | C1608C0G1H100C080AA | | |
| 1608 | 0.80±0.10 | ±0.50pF | C1608C0G1H100D080AA | | | |
| 12 pF | 0402 | 0.20±0.02 | ±10% | | | C0402C0G1C120K020BC |
| | 0603 | 0.30±0.03 | ±5% | | | C0402C0G1C120J020BC |
| | | | ±10% | C0603C0G1H120K030BA | C0603C0G1E120K030BA | |
| | 1005 | 0.50±0.05 | ±5% | C0603C0G1H120J030BA | C0603C0G1E120J030BA | |
| | | | ±5% | C1005C0G1H120J050BA | | |
| 1608 | 0.80±0.10 | ±5% | C1608C0G1H120J080AA | | | |
| 15 pF | 0402 | 0.20±0.02 | ±10% | | | C0402C0G1C150K020BC |
| | 0603 | 0.30±0.03 | ±5% | | | C0402C0G1C150J020BC |
| | | | ±10% | C0603C0G1H150K030BA | C0603C0G1E150K030BA | |
| | 1005 | 0.50±0.05 | ±5% | C0603C0G1H150J030BA | C0603C0G1E150J030BA | |
| | | | ±1% | C1005C0G1H150F050BA | | |
| 1608 | 0.80±0.10 | ±2% | C1005C0G1H150G050BA | | | |
| | | ±5% | C1005C0G1H150J050BA | | | |
| 18 pF | 0402 | 0.20±0.02 | ±10% | | | C0402C0G1C180K020BC |
| | 0603 | 0.30±0.03 | ±5% | | | C0402C0G1C180J020BC |
| | | | ±10% | C0603C0G1H180K030BA | C0603C0G1E180K030BA | |
| | 1005 | 0.50±0.05 | ±5% | C0603C0G1H180J030BA | C0603C0G1E180J030BA | |
| | | | ±5% | C1005C0G1H180J050BA | | |
| 1608 | 0.80±0.10 | ±5% | C1608C0G1H180J080AA | | | |
| 22 pF | 0402 | 0.20±0.02 | ±10% | | | C0402C0G1C220K020BC |
| | 0603 | 0.30±0.03 | ±5% | | | C0402C0G1C220J020BC |
| | | | ±10% | C0603C0G1H220K030BA | C0603C0G1E220K030BA | |
| | 1005 | 0.50±0.05 | ±5% | C0603C0G1H220J030BA | C0603C0G1E220J030BA | |
| | | | ±1% | C1005C0G1H220F050BA | | |
| 1608 | 0.80±0.10 | ±2% | C1005C0G1H220G050BA | | | |
| | | ±5% | C1005C0G1H220J050BA | | | |
| 27 pF | 0402 | 0.20±0.02 | ±10% | | | C0402C0G1C270K020BC |
| | 0603 | 0.30±0.03 | ±5% | | | C0402C0G1C270J020BC |
| | | | ±10% | C0603C0G1H270K030BA | C0603C0G1E270K030BA | |
| | 1005 | 0.50±0.05 | ±5% | C0603C0G1H270J030BA | C0603C0G1E270J030BA | |
| | | | ±5% | C1005C0G1H270J050BA | | |
| 1608 | 0.80±0.10 | ±5% | C1608C0G1H270J080AA | | | |

■ The gray items are non-recommended products in the new design.

MULTILAYER CERAMIC CHIP CAPACITORS



Capacitance Range Table

Class 1 (Temperature Compensating)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | | |
|-------------|-----------|----------------|-----------------------|------------------------|------------------------|------------------------|---------------------|
| | | | | Rated Voltage Edc: 50V | Rated Voltage Edc: 25V | Rated Voltage Edc: 16V | |
| 33 pF | 0402 | 0.20±0.02 | ±10% | | | C0402C0G1C330K020BC | |
| | | | ±5% | | | C0402C0G1C330J020BC | |
| | 0603 | 0.30±0.03 | ±10% | C0603C0G1H330K030BA | C0603C0G1E330K030BA | | |
| | | | ±5% | C0603C0G1H330J030BA | C0603C0G1E330J030BA | | |
| | 1005 | 0.50±0.05 | ±1% | C1005C0G1H330F050BA | | | |
| | | | ±2% | C1005C0G1H330G050BA | | | |
| | | | ±5% | C1005C0G1H330J050BA | | | |
| | | | ±1% | C1608C0G1H330F080AA | | | |
| | 1608 | 0.80±0.10 | ±2% | C1608C0G1H330G080AA | | | |
| | | | ±5% | C1608C0G1H330J080AA | | | |
| ±10% | | | | | C0402C0G1C390K020BC | | |
| 39 pF | 0402 | 0.20±0.02 | ±10% | | | C0402C0G1C390K020BC | |
| | | | ±5% | | | C0402C0G1C390J020BC | |
| | 0603 | 0.30±0.03 | ±10% | C0603C0G1H390K030BA | C0603C0G1E390K030BA | | |
| | | | ±5% | C0603C0G1H390J030BA | C0603C0G1E390J030BA | | |
| | 1005 | 0.50±0.05 | ±5% | C1005C0G1H390J050BA | | | |
| | | | ±5% | C1608C0G1H390J080AA | | | |
| | 47 pF | 0402 | 0.20±0.02 | ±10% | | | C0402C0G1C470K020BC |
| | | | | ±5% | | | C0402C0G1C470J020BC |
| | | 0603 | 0.30±0.03 | ±10% | C0603C0G1H470K030BA | C0603C0G1E470K030BA | |
| | | | | ±5% | C0603C0G1H470J030BA | C0603C0G1E470J030BA | |
| 1005 | | 0.50±0.05 | ±1% | C1005C0G1H470F050BA | | | |
| | | | ±2% | C1005C0G1H470G050BA | | | |
| | | | ±5% | C1005C0G1H470J050BA | | | |
| | | | ±1% | C1608C0G1H470F080AA | | | |
| 1608 | 0.80±0.10 | ±2% | C1608C0G1H470G080AA | | | | |
| | | ±5% | C1608C0G1H470J080AA | | | | |
| | | ±10% | | | C0402C0G1C560K020BC | | |
| 56 pF | 0402 | 0.20±0.02 | ±10% | | | C0402C0G1C560K020BC | |
| | | | ±5% | | | C0402C0G1C560J020BC | |
| | 0603 | 0.30±0.03 | ±10% | C0603C0G1H560K030BA | C0603C0G1E560K030BA | | |
| | | | ±5% | C0603C0G1H560J030BA | C0603C0G1E560J030BA | | |
| | 1005 | 0.50±0.05 | ±5% | C1005C0G1H560J050BA | | | |
| | | | ±5% | C1608C0G1H560J080AA | | | |
| | 68 pF | 0402 | 0.20±0.02 | ±10% | | | C0402C0G1C680K020BC |
| | | | | ±5% | | | C0402C0G1C680J020BC |
| | | 0603 | 0.30±0.03 | ±10% | C0603C0G1H680K030BA | C0603C0G1E680K030BA | |
| | | | | ±5% | C0603C0G1H680J030BA | C0603C0G1E680J030BA | |
| 1005 | | 0.50±0.05 | ±1% | C1005C0G1H680F050BA | | | |
| | | | ±2% | C1005C0G1H680G050BA | | | |
| | | | ±5% | C1005C0G1H680J050BA | | | |
| | | | ±1% | C1608C0G1H680F080AA | | | |
| 1608 | | 0.80±0.10 | ±2% | C1608C0G1H680G080AA | | | |
| | | | ±5% | C1608C0G1H680J080AA | | | |
| | ±10% | | | | C0402C0G1C820K020BC | | |
| 82 pF | 0402 | 0.20±0.02 | ±10% | | | C0402C0G1C820K020BC | |
| | | | ±5% | | | C0402C0G1C820J020BC | |
| | 0603 | 0.30±0.03 | ±10% | C0603C0G1H820K030BA | C0603C0G1E820K030BA | | |
| | | | ±5% | C0603C0G1H820J030BA | C0603C0G1E820J030BA | | |
| | 1005 | 0.50±0.05 | ±5% | C1005C0G1H820J050BA | | | |
| | | | ±5% | C1608C0G1H820J080AA | | | |
| | 100 pF | 0402 | 0.20±0.02 | ±10% | | | C0402C0G1C101K020BC |
| | | | | ±5% | | | C0402C0G1C101J020BC |
| | | 0603 | 0.30±0.03 | ±10% | C0603C0G1H101K030BA | C0603C0G1E101K030BA | |
| | | | | ±5% | C0603C0G1H101J030BA | C0603C0G1E101J030BA | |
| 1005 | | 0.50±0.05 | ±1% | C1005C0G1H101F050BA | | | |
| | | | ±10% | C1005C0G1H101K050BA | | | |
| | | | ±2% | C1005C0G1H101G050BA | | | |
| | | | ±5% | C1005C0G1H101J050BA | | | |
| 1608 | | 0.80±0.10 | ±1% | C1608C0G1H101F080AA | | | |
| | | | ±10% | C1608C0G1H101K080AA | | | |
| | ±2% | | C1608C0G1H101G080AA | | | | |
| | ±5% | | C1608C0G1H101J080AA | | | | |

■ The gray items are non-recommended products in the new design.

⚠ 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

Class 1 (Temperature Compensating)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number |
|-------------|------|----------------|-----------------------|------------------------|
| | | | | Rated Voltage Edc: 50V |
| 120 pF | 1005 | 0.50±0.05 | ±10% | C1005C0G1H121K050BA |
| | | | ±5% | C1005C0G1H121J050BA |
| | | | ±10% | C1608C0G1H121K080AA |
| | 1608 | 0.80±0.10 | ±5% | C1608C0G1H121J080AA |
| | | | ±1% | C1005C0G1H151F050BA |
| | | | ±10% | C1005C0G1H151K050BA |
| 150 pF | 1005 | 0.50±0.05 | ±2% | C1005C0G1H151G050BA |
| | | | ±5% | C1005C0G1H151J050BA |
| | | | ±1% | C1608C0G1H151F080AA |
| | 1608 | 0.80±0.10 | ±10% | C1608C0G1H151K080AA |
| | | | ±2% | C1608C0G1H151G080AA |
| | | | ±5% | C1608C0G1H151J080AA |
| 180 pF | 1005 | 0.50±0.05 | ±10% | C1005C0G1H181K050BA |
| | | | ±5% | C1005C0G1H181J050BA |
| | | | ±10% | C1608C0G1H181K080AA |
| | 1608 | 0.80±0.10 | ±5% | C1608C0G1H181J080AA |
| | | | ±1% | C1005C0G1H221F050BA |
| | | | ±10% | C1005C0G1H221K050BA |
| 220 pF | 1005 | 0.50±0.05 | ±2% | C1005C0G1H221G050BA |
| | | | ±5% | C1005C0G1H221J050BA |
| | | | ±1% | C1608C0G1H221F080AA |
| | 1608 | 0.80±0.10 | ±10% | C1608C0G1H221K080AA |
| | | | ±2% | C1608C0G1H221G080AA |
| | | | ±5% | C1608C0G1H221J080AA |
| 270 pF | 1005 | 0.50±0.05 | ±10% | C1005C0G1H271K050BA |
| | | | ±5% | C1005C0G1H271J050BA |
| | | | ±10% | C1608C0G1H271K080AA |
| | 1608 | 0.80±0.10 | ±5% | C1608C0G1H271J080AA |
| | | | ±1% | C1005C0G1H331F050BA |
| | | | ±10% | C1005C0G1H331K050BA |
| 330 pF | 1005 | 0.50±0.05 | ±2% | C1005C0G1H331G050BA |
| | | | ±5% | C1005C0G1H331J050BA |
| | | | ±1% | C1608C0G1H331F080AA |
| | 1608 | 0.80±0.10 | ±10% | C1608C0G1H331K080AA |
| | | | ±2% | C1608C0G1H331G080AA |
| | | | ±5% | C1608C0G1H331J080AA |
| 390 pF | 1005 | 0.50±0.05 | ±10% | C1005C0G1H391K050BA |
| | | | ±5% | C1005C0G1H391J050BA |
| | | | ±10% | C1608C0G1H391K080AA |
| | 1608 | 0.80±0.10 | ±5% | C1608C0G1H391J080AA |
| | | | ±1% | C1005C0G1H471F050BA |
| | | | ±10% | C1005C0G1H471K050BA |
| 470 pF | 1005 | 0.50±0.05 | ±2% | C1005C0G1H471G050BA |
| | | | ±5% | C1005C0G1H471J050BA |
| | | | ±1% | C1608C0G1H471F080AA |
| | 1608 | 0.80±0.10 | ±10% | C1608C0G1H471K080AA |
| | | | ±2% | C1608C0G1H471G080AA |
| | | | ±5% | C1608C0G1H471J080AA |
| 560 pF | 1005 | 0.50±0.05 | ±10% | C1005C0G1H561K050BA |
| | | | ±5% | C1005C0G1H561J050BA |
| | | | ±10% | C1608C0G1H561K080AA |
| | 1608 | 0.80±0.10 | ±5% | C1608C0G1H561J080AA |
| | | | ±1% | C1005C0G1H681F050BA |
| | | | ±10% | C1005C0G1H681K050BA |
| 680 pF | 1005 | 0.50±0.05 | ±2% | C1005C0G1H681G050BA |
| | | | ±5% | C1005C0G1H681J050BA |
| | | | ±1% | C1608C0G1H681F080AA |
| | 1608 | 0.80±0.10 | ±10% | C1608C0G1H681K080AA |
| | | | ±2% | C1608C0G1H681G080AA |
| | | | ±5% | C1608C0G1H681J080AA |

■ The gray items are non-recommended products in the new design.

⚠ 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

Class 1 (Temperature Compensating)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | |
|-------------|-----------|----------------|-----------------------|------------------------|-------------------------|
| | | | | Rated Voltage Edc: 50V | Rated Voltage Edc : 25V |
| 820 pF | 1005 | 0.50±0.05 | ±10% | C1005C0G1H821K050BA | |
| | | | ±5% | C1005C0G1H821J050BA | |
| | 1608 | 0.80±0.10 | ±10% | C1608C0G1H821K080AA | |
| | | | ±5% | C1608C0G1H821J080AA | |
| 1 nF | 1005 | 0.50±0.05 | ±1% | C1005C0G1H102F050BA | |
| | | | ±10% | C1005C0G1H102K050BA | |
| | | | ±2% | C1005C0G1H102G050BA | |
| | | | ±5% | C1005C0G1H102J050BA | C1005C0G1E102J050BA |
| | 1608 | 0.80±0.10 | ±1% | C1608C0G1H102F080AA | |
| | | | ±10% | C1608C0G1H102K080AA | |
| | | | ±2% | C1608C0G1H102G080AA | |
| | | | ±5% | C1608C0G1H102J080AA | |
| 2012 | 0.60±0.15 | ±10% | C2012C0G1H102K060AA | | |
| | | ±5% | C2012C0G1H102J060AA | | |
| 1.2 nF | 1608 | 0.80±0.10 | ±10% | C1608C0G1H122K080AA | |
| | | | ±5% | C1608C0G1H122J080AA | |
| | 2012 | 0.60±0.15 | ±10% | C2012C0G1H122K060AA | |
| | | | ±5% | C2012C0G1H122J060AA | |
| 1.5 nF | 1608 | 0.80±0.10 | ±10% | C1608C0G1H152K080AA | |
| | | | ±5% | C1608C0G1H152J080AA | |
| | 2012 | 0.60±0.15 | ±10% | C2012C0G1H152K060AA | |
| | | | ±5% | C2012C0G1H152J060AA | |
| 1.8 nF | 1608 | 0.80±0.10 | ±10% | C1608C0G1H182K080AA | |
| | | | ±5% | C1608C0G1H182J080AA | |
| | 2012 | 0.60±0.15 | ±10% | C2012C0G1H182K060AA | |
| | | | ±5% | C2012C0G1H182J060AA | |
| 2.2 nF | 1608 | 0.80±0.10 | ±10% | C1608C0G1H222K080AA | |
| | | | ±5% | C1608C0G1H222J080AA | |
| | 2012 | 0.60±0.15 | ±10% | C2012C0G1H222K060AA | |
| | | | ±5% | C2012C0G1H222J060AA | |
| 2.7 nF | 1608 | 0.80±0.10 | ±10% | C1608C0G1H272K080AA | |
| | | | ±5% | C1608C0G1H272J080AA | |
| | 2012 | 0.60±0.15 | ±10% | C2012C0G1H272K060AA | |
| | | | ±5% | C2012C0G1H272J060AA | |
| 3.3 nF | 1608 | 0.80±0.10 | ±10% | C1608C0G1H332K080AA | |
| | | | ±5% | C1608C0G1H332J080AA | |
| | 2012 | 0.60±0.15 | ±10% | C2012C0G1H332K060AA | |
| | | | ±5% | C2012C0G1H332J060AA | |
| | 3216 | 0.60±0.15 | ±5% | C2012C0G1H332J125AA | |
| | | | ±10% | C1608C0G1H392K080AA | |
| 3.9 nF | 1608 | 0.80±0.10 | ±5% | C1608C0G1H392J080AA | C1608C0G1E392J080AA |
| | | | ±10% | C2012C0G1H392K060AA | |
| | 2012 | 0.60±0.15 | ±5% | C2012C0G1H392J060AA | |
| | | | ±10% | C3216C0G1H392K060AA | |
| 3216 | 0.60±0.15 | ±5% | C3216C0G1H392J060AA | | |
| | | ±10% | C1608C0G1H472K080AA | | |
| 4.7 nF | 1608 | 0.80±0.10 | ±5% | C1608C0G1H472J080AA | C1608C0G1E472J080AA |
| | | | ±10% | C2012C0G1H472K060AA | |
| | 2012 | 0.60±0.15 | ±5% | C2012C0G1H472J060AA | |
| | | | ±10% | C3216C0G1H472K060AA | |
| 3216 | 0.60±0.15 | ±5% | C3216C0G1H472J060AA | | |
| | | ±10% | C1608C0G1H562K080AA | | |
| 5.6 nF | 1608 | 0.80±0.10 | ±5% | C1608C0G1H562J080AA | C1608C0G1E562J080AA |
| | | | ±10% | C2012C0G1H562K060AA | |
| | 2012 | 0.60±0.15 | ±5% | C2012C0G1H562J060AA | |
| | | | ±10% | C3216C0G1H562K060AA | |
| 3216 | 0.60±0.15 | ±5% | C3216C0G1H562J060AA | | |

■ The gray items are non-recommended products in the new design.

MULTILAYER CERAMIC CHIP CAPACITORS

Capacitance Range Table

Class 1 (Temperature Compensating)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | |
|-------------|-----------|----------------|-----------------------|------------------------|-------------------------|-------------------------|
| | | | | Rated Voltage Edc: 50V | Rated Voltage Edc : 35V | Rated Voltage Edc : 25V |
| 6.8 nF | 1608 | 0.80±0.10 | ±10% | C1608C0G1H682K080AA | | |
| | | | ±5% | C1608C0G1H682J080AA | | C1608C0G1E682J080AA |
| | 2012 | 0.60±0.15 | ±10% | C2012C0G1H682K060AA | | |
| | | | ±5% | C2012C0G1H682J060AA | | |
| | 3216 | 0.60±0.15 | ±10% | C3216C0G1H682K060AA | | |
| | | | ±5% | C3216C0G1H682J060AA | | |
| 8.2 nF | 1608 | 0.80±0.10 | ±10% | C1608C0G1H822K080AA | | |
| | | | ±5% | C1608C0G1H822J080AA | | C1608C0G1E822J080AA |
| | 2012 | 0.60±0.15 | ±10% | C2012C0G1H822K060AA | | |
| | | | ±5% | C2012C0G1H822J060AA | | |
| | 3216 | 0.60±0.15 | ±10% | C3216C0G1H822K060AA | | |
| | | | ±5% | C3216C0G1H822J060AA | | |
| 10 nF | 1608 | 0.80±0.10 | ±10% | C1608C0G1H103K080AA | C1608C0G1V103K080AC | |
| | | | ±5% | C1608C0G1H103J080AA | C1608C0G1V103J080AC | C1608C0G1E103J080AA |
| | 2012 | 0.60±0.15 | ±10% | C2012C0G1H103K060AA | | |
| | | | ±5% | C2012C0G1H103J060AA | | C2012C0G1E103J060AA |
| | 3216 | 0.60±0.15 | ±10% | C3216C0G1H103K060AA | | |
| | | | ±5% | C3216C0G1H103J060AA | | |
| 15 nF | 1608 | 0.80±0.10 | ±10% | | C1608C0G1V153K080AC | |
| | | | ±5% | | C1608C0G1V153J080AC | |
| | 2012 | 0.85±0.15 | ±10% | C2012C0G1H153K085AA | | |
| | | | ±5% | C2012C0G1H153J085AA | | C2012C0G1E153J085AA |
| | 3216 | 0.60±0.15 | ±10% | C3216C0G1H153K060AA | | |
| | | | ±5% | C3216C0G1H153J060AA | | |
| 18 nF | 1608 | 0.80±0.10 | ±10% | | C1608C0G1V183K080AC | |
| | | | ±5% | | C1608C0G1V183J080AC | |
| | 2012 | 0.60±0.15 | ±10% | | C2012C0G1V183K060AC | |
| | | | ±5% | | C2012C0G1V183J060AC | |
| | 2012 | 0.60±0.15 | ±10% | | C2012C0G1V223K060AC | |
| | | | ±5% | | C2012C0G1V223J060AC | |
| 3216 | 0.60±0.15 | ±10% | C2012C0G1H223K125AA | | | |
| | | ±5% | C2012C0G1H223J125AA | | C2012C0G1E223J125AA | |
| 3216 | 0.60±0.15 | ±10% | C3216C0G1H223K060AA | | | |
| | | ±5% | C3216C0G1H223J060AA | | | |
| 3225 | 1.25±0.20 | ±10% | C3225C0G1H223K125AA | | | |
| | | ±5% | C3225C0G1H223J125AA | | | |
| 27 nF | 2012 | 0.60±0.15 | ±10% | | C2012C0G1V273K060AC | |
| | | | ±5% | | C2012C0G1V273J060AC | |
| 30 nF | 2012 | 0.60±0.15 | ±10% | | C2012C0G1V303K060AC | |
| | | | ±5% | | C2012C0G1V303J060AC | |
| 33 nF | 2012 | 1.25±0.20 | ±10% | C2012C0G1H333K125AA | | |
| | | | ±5% | C2012C0G1H333J125AA | | C2012C0G1E333J125AA |
| | 3216 | 0.85±0.15 | ±10% | C3216C0G1H333K085AA | | |
| | | | ±5% | C3216C0G1H333J085AA | | |
| | 3225 | 1.60±0.20 | ±10% | C3225C0G1H333K160AA | | |
| | | | ±5% | C3225C0G1H333J160AA | | |
| 3216 | 1.15±0.15 | ±10% | C3216C0G1H473K115AA | | | |
| | | ±5% | C3216C0G1H473J115AA | | | |
| 47 nF | 3225 | 2.00±0.20 | ±10% | C3225C0G1H473K200AA | | |
| | | | ±5% | C3225C0G1H473J200AA | | |
| | 4532 | 1.60±0.20 | ±10% | C4532C0G1H473K160KA | | |
| | | | ±5% | C4532C0G1H473J160KA | | |
| | 3216 | 1.60±0.20 | ±10% | C3216C0G1H683K160AA | | |
| | | | ±5% | C3216C0G1H683J160AA | | |
| 3225 | 2.00±0.20 | ±10% | C3225C0G1H683K200AA | | | |
| | | ±5% | C3225C0G1H683J200AA | | | |
| 68 nF | 4532 | 1.60±0.20 | ±10% | C4532C0G1H683K160KA | | |
| | | | ±5% | C4532C0G1H683J160KA | | |
| | 3216 | 1.60±0.20 | ±10% | C3216C0G1H104K160AA | | |
| | | | ±5% | C3216C0G1H104J160AA | | |
| | 3225 | 2.50±0.30 | ±10% | C3225C0G1H104K250AA | | |
| | | | ±5% | C3225C0G1H104J250AA | | |
| 4532 | 2.00±0.20 | ±10% | C4532C0G1H104K200KA | | | |
| | | ±5% | C4532C0G1H104J200KA | | | |
| 150 nF | 4532 | 2.50±0.30 | ±10% | C4532C0G1H154K250KA | | |
| | | | ±5% | C4532C0G1H154J250KA | | |
| 220 nF | 4532 | 3.20±0.30 | ±10% | C4532C0G1H224K320KA | | |
| | | | ±5% | C4532C0G1H224J320KA | | |

 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

Class 1 (Temperature Compensating)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | |
|-------------|-----------|----------------|-----------------------|------------------------|------------------------|------------------------|
| | | | | Rated Voltage Edc: 50V | Rated Voltage Edc: 25V | Rated Voltage Edc: 16V |
| 0.5 pF | 0402 | 0.20±0.02 | ±0.25pF | | | C0402CH1C0R5C020BC |
| | 0603 | 0.30±0.03 | ±0.25pF | C0603CH1H0R5C030BA | C0603CH1E0R5C030BA | |
| | 1005 | 0.50±0.05 | ±0.10pF | C1005CH1H0R5B050BA | | |
| | | | ±0.25pF | C1005CH1H0R5C050BA | | |
| 1608 | 0.80±0.10 | ±0.25pF | C1608CH1H0R5C080AA | | | |
| 0.75 pF | 0402 | 0.20±0.02 | ±0.25pF | | | C0402CH1CR75C020BC |
| | 0603 | 0.30±0.03 | ±0.25pF | C0603CH1HR75C030BA | C0603CH1ER75C030BA | |
| | 1005 | 0.50±0.05 | ±0.10pF | C1005CH1HR75B050BA | | |
| | | | ±0.25pF | C1005CH1HR75C050BA | | |
| 1608 | 0.80±0.10 | ±0.25pF | C1608CH1HR75C080AA | | | |
| 1 pF | 0402 | 0.20±0.02 | ±0.25pF | | | C0402CH1C010C020BC |
| | 0603 | 0.30±0.03 | ±0.25pF | C0603CH1H010C030BA | C0603CH1E010C030BA | |
| | 1005 | 0.50±0.05 | ±0.10pF | C1005CH1H010B050BA | | |
| | | | ±0.25pF | C1005CH1H010C050BA | | |
| 1608 | 0.80±0.10 | ±0.25pF | C1608CH1H010C080AA | | | |
| 1.5 pF | 0402 | 0.20±0.02 | ±0.25pF | | | C0402CH1C1R5C020BC |
| | 0603 | 0.30±0.03 | ±0.25pF | C0603CH1H1R5C030BA | C0603CH1E1R5C030BA | |
| | 1005 | 0.50±0.05 | ±0.10pF | C1005CH1H1R5B050BA | | |
| | | | ±0.25pF | C1005CH1H1R5C050BA | | |
| 1608 | 0.80±0.10 | ±0.25pF | C1608CH1H1R5C080AA | | | |
| 2 pF | 0402 | 0.20±0.02 | ±0.25pF | | | C0402CH1C020C020BC |
| | 0603 | 0.30±0.03 | ±0.25pF | C0603CH1H020C030BA | C0603CH1E020C030BA | |
| | 1005 | 0.50±0.05 | ±0.10pF | C1005CH1H020B050BA | | |
| | | | ±0.25pF | C1005CH1H020C050BA | | |
| 1608 | 0.80±0.10 | ±0.25pF | C1608CH1H020C080AA | | | |
| 2.2 pF | 0402 | 0.20±0.02 | ±0.25pF | | | C0402CH1C2R2C020BC |
| | 0603 | 0.30±0.03 | ±0.25pF | C0603CH1H2R2C030BA | C0603CH1E2R2C030BA | |
| 3 pF | 0402 | 0.20±0.02 | ±0.25pF | | | C0402CH1C030C020BC |
| | 0603 | 0.30±0.03 | ±0.25pF | C0603CH1H030C030BA | C0603CH1E030C030BA | |
| | 1005 | 0.50±0.05 | ±0.10pF | C1005CH1H030B050BA | | |
| | | | ±0.25pF | C1005CH1H030C050BA | | |
| 1608 | 0.80±0.10 | ±0.25pF | C1608CH1H030C080AA | | | |
| 3.3 pF | 0402 | 0.20±0.02 | ±0.25pF | | | C0402CH1C3R3C020BC |
| | 0603 | 0.30±0.03 | ±0.25pF | C0603CH1H3R3C030BA | C0603CH1E3R3C030BA | |
| 4 pF | 0402 | 0.20±0.02 | ±0.25pF | | | C0402CH1C040C020BC |
| | 0603 | 0.30±0.03 | ±0.25pF | C0603CH1H040C030BA | C0603CH1E040C030BA | |
| | 1005 | 0.50±0.05 | ±0.10pF | C1005CH1H040B050BA | | |
| | | | ±0.25pF | C1005CH1H040C050BA | | |
| 1608 | 0.80±0.10 | ±0.25pF | C1608CH1H040C080AA | | | |
| 4.7 pF | 0402 | 0.20±0.02 | ±0.25pF | | | C0402CH1C4R7C020BC |
| | 0603 | 0.30±0.03 | ±0.25pF | C0603CH1H4R7C030BA | C0603CH1E4R7C030BA | |
| 5 pF | 0402 | 0.20±0.02 | ±0.25pF | | | C0402CH1C050C020BC |
| | 0603 | 0.30±0.03 | ±0.25pF | C0603CH1H050C030BA | C0603CH1E050C030BA | |
| | 1005 | 0.50±0.05 | ±0.10pF | C1005CH1H050B050BA | | |
| | | | ±0.25pF | C1005CH1H050C050BA | | |
| 1608 | 0.80±0.10 | ±0.25pF | C1608CH1H050C080AA | | | |
| 6 pF | 0402 | 0.20±0.02 | ±0.50pF | | | C0402CH1C060D020BC |
| | 0603 | 0.30±0.03 | ±0.50pF | C0603CH1H060D030BA | C0603CH1E060D030BA | |
| | 1005 | 0.50±0.05 | ±0.25pF | C1005CH1H060C050BA | | |
| | | | ±0.50pF | C1005CH1H060D050BA | | |
| 1608 | 0.80±0.10 | ±0.25pF | C1608CH1H060C080AA | | | |
| 6.8 pF | 0402 | 0.20±0.02 | ±0.50pF | | | C0402CH1C6R8D020BC |
| | 0603 | 0.30±0.03 | ±0.50pF | C0603CH1H6R8D030BA | C0603CH1E6R8D030BA | |
| 7 pF | 0402 | 0.20±0.02 | ±0.50pF | | | C0402CH1C070D020BC |
| | 0603 | 0.30±0.03 | ±0.50pF | C0603CH1H070D030BA | C0603CH1E070D030BA | |
| | 1005 | 0.50±0.05 | ±0.25pF | C1005CH1H070C050BA | | |
| | | | ±0.50pF | C1005CH1H070D050BA | | |
| 1608 | 0.80±0.10 | ±0.25pF | C1608CH1H070C080AA | | | |
| | | | ±0.50pF | C1608CH1H070D080AA | | |

■ The gray items are non-recommended products in the new design.

⚠ 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

Class 1 (Temperature Compensating)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | |
|-------------|-----------|----------------|-----------------------|------------------------|------------------------|------------------------|
| | | | | Rated Voltage Edc: 50V | Rated Voltage Edc: 25V | Rated Voltage Edc: 16V |
| 8 pF | 0402 | 0.20±0.02 | ±0.50pF | | | C0402CH1C080D020BC |
| | 0603 | 0.30±0.03 | ±0.50pF | C0603CH1H080D030BA | C0603CH1E080D030BA | |
| | 1005 | 0.50±0.05 | ±0.25pF | C1005CH1H080C050BA | | |
| | | | ±0.50pF | C1005CH1H080D050BA | | |
| | | | ±0.25pF | C1608CH1H080C080AA | | |
| 1608 | 0.80±0.10 | ±0.50pF | C1608CH1H080D080AA | | | |
| 9 pF | 0402 | 0.20±0.02 | ±0.50pF | | | C0402CH1C090D020BC |
| | 0603 | 0.30±0.03 | ±0.50pF | C0603CH1H090D030BA | C0603CH1E090D030BA | |
| | 1005 | 0.50±0.05 | ±0.25pF | C1005CH1H090C050BA | | |
| | | | ±0.50pF | C1005CH1H090D050BA | | |
| | | | ±0.25pF | C1608CH1H090C080AA | | |
| 1608 | 0.80±0.10 | ±0.50pF | C1608CH1H090D080AA | | | |
| 10 pF | 0402 | 0.20±0.02 | ±0.50pF | | | C0402CH1C100D020BC |
| | 0603 | 0.30±0.03 | ±0.50pF | C0603CH1H100D030BA | C0603CH1E100D030BA | |
| | 1005 | 0.50±0.05 | ±0.25pF | C1005CH1H100C050BA | | |
| | | | ±0.50pF | C1005CH1H100D050BA | | |
| | | | ±0.25pF | C1608CH1H100C080AA | | |
| 1608 | 0.80±0.10 | ±0.50pF | C1608CH1H100D080AA | | | |
| 12 pF | 0402 | 0.20±0.02 | ±10% | | | C0402CH1C120K020BC |
| | 0603 | 0.30±0.03 | ±5% | | | C0402CH1C120J020BC |
| | | | ±10% | C0603CH1H120K030BA | C0603CH1E120K030BA | |
| | | | ±5% | C0603CH1H120J030BA | C0603CH1E120J030BA | |
| | | | ±5% | C1005CH1H120J050BA | | |
| 1608 | 0.80±0.10 | ±5% | C1608CH1H120J080AA | | | |
| 15 pF | 0402 | 0.20±0.02 | ±10% | | | C0402CH1C150K020BC |
| | 0603 | 0.30±0.03 | ±5% | | | C0402CH1C150J020BC |
| | | | ±10% | C0603CH1H150K030BA | C0603CH1E150K030BA | |
| | | | ±5% | C0603CH1H150J030BA | C0603CH1E150J030BA | |
| | | | ±5% | C1005CH1H150J050BA | | |
| 1608 | 0.80±0.10 | ±5% | C1608CH1H150J080AA | | | |
| 18 pF | 0402 | 0.20±0.02 | ±10% | | | C0402CH1C180K020BC |
| | 0603 | 0.30±0.03 | ±5% | | | C0402CH1C180J020BC |
| | | | ±10% | C0603CH1H180K030BA | C0603CH1E180K030BA | |
| | | | ±5% | C0603CH1H180J030BA | C0603CH1E180J030BA | |
| | | | ±5% | C1005CH1H180J050BA | | |
| 1608 | 0.80±0.10 | ±5% | C1608CH1H180J080AA | | | |
| 22 pF | 0402 | 0.20±0.02 | ±10% | | | C0402CH1C220K020BC |
| | 0603 | 0.30±0.03 | ±5% | | | C0402CH1C220J020BC |
| | | | ±10% | C0603CH1H220K030BA | C0603CH1E220K030BA | |
| | | | ±5% | C0603CH1H220J030BA | C0603CH1E220J030BA | |
| | | | ±5% | C1005CH1H220J050BA | | |
| 1608 | 0.80±0.10 | ±5% | C1608CH1H220J080AA | | | |
| 27 pF | 0402 | 0.20±0.02 | ±10% | | | C0402CH1C270K020BC |
| | 0603 | 0.30±0.03 | ±5% | | | C0402CH1C270J020BC |
| | | | ±10% | C0603CH1H270K030BA | C0603CH1E270K030BA | |
| | | | ±5% | C0603CH1H270J030BA | C0603CH1E270J030BA | |
| | | | ±5% | C1005CH1H270J050BA | | |
| 1608 | 0.80±0.10 | ±5% | C1608CH1H270J080AA | | | |
| 33 pF | 0402 | 0.20±0.02 | ±10% | | | C0402CH1C330K020BC |
| | 0603 | 0.30±0.03 | ±5% | | | C0402CH1C330J020BC |
| | | | ±10% | C0603CH1H330K030BA | C0603CH1E330K030BA | |
| | | | ±5% | C0603CH1H330J030BA | C0603CH1E330J030BA | |
| | | | ±5% | C1005CH1H330J050BA | | |
| 1608 | 0.80±0.10 | ±5% | C1608CH1H330J080AA | | | |
| 39 pF | 0402 | 0.20±0.02 | ±10% | | | C0402CH1C390K020BC |
| | 0603 | 0.30±0.03 | ±5% | | | C0402CH1C390J020BC |
| | | | ±10% | C0603CH1H390K030BA | C0603CH1E390K030BA | |
| | | | ±5% | C0603CH1H390J030BA | C0603CH1E390J030BA | |
| | | | ±5% | C1005CH1H390J050BA | | |
| 1608 | 0.80±0.10 | ±5% | C1608CH1H390J080AA | | | |

■ The gray items are non-recommended products in the new design.

MULTILAYER CERAMIC CHIP CAPACITORS



Capacitance Range Table

Class 1 (Temperature Compensating)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | |
|-------------|-----------|----------------|-----------------------|------------------------|------------------------|------------------------|
| | | | | Rated Voltage Edc: 50V | Rated Voltage Edc: 25V | Rated Voltage Edc: 16V |
| 47 pF | 0402 | 0.20±0.02 | ±10% | | | C0402CH1C470K020BC |
| | | | ±5% | | | C0402CH1C470J020BC |
| | 0603 | 0.30±0.03 | ±10% | C0603CH1H470K030BA | C0603CH1E470K030BA | |
| | | | ±5% | C0603CH1H470J030BA | C0603CH1E470J030BA | |
| 1005 | 0.50±0.05 | ±10% | C1005CH1H470J050BA | | | |
| | | ±5% | C1608CH1H470J080AA | | | |
| 56 pF | 0402 | 0.20±0.02 | ±10% | | | C0402CH1C560K020BC |
| | | | ±5% | | | C0402CH1C560J020BC |
| | 0603 | 0.30±0.03 | ±10% | C0603CH1H560K030BA | C0603CH1E560K030BA | |
| | | | ±5% | C0603CH1H560J030BA | C0603CH1E560J030BA | |
| 1005 | 0.50±0.05 | ±10% | C1005CH1H560J050BA | | | |
| | | ±5% | C1608CH1H560J080AA | | | |
| 68 pF | 0402 | 0.20±0.02 | ±10% | | | C0402CH1C680K020BC |
| | | | ±5% | | | C0402CH1C680J020BC |
| | 0603 | 0.30±0.03 | ±10% | C0603CH1H680K030BA | C0603CH1E680K030BA | |
| | | | ±5% | C0603CH1H680J030BA | C0603CH1E680J030BA | |
| 1005 | 0.50±0.05 | ±10% | C1005CH1H680J050BA | | | |
| | | ±5% | C1608CH1H680J080AA | | | |
| 82 pF | 0402 | 0.20±0.02 | ±10% | | | C0402CH1C820K020BC |
| | | | ±5% | | | C0402CH1C820J020BC |
| | 0603 | 0.30±0.03 | ±10% | C0603CH1H820K030BA | C0603CH1E820K030BA | |
| | | | ±5% | C0603CH1H820J030BA | C0603CH1E820J030BA | |
| 1005 | 0.50±0.05 | ±10% | C1005CH1H820J050BA | | | |
| | | ±5% | C1608CH1H820J080AA | | | |
| 100 pF | 0402 | 0.20±0.02 | ±10% | | | C0402CH1C101K020BC |
| | | | ±5% | | | C0402CH1C101J020BC |
| | 0603 | 0.30±0.03 | ±10% | C0603CH1H101K030BA | C0603CH1E101K030BA | |
| | | | ±5% | C0603CH1H101J030BA | C0603CH1E101J030BA | |
| 1005 | 0.50±0.05 | ±10% | C1005CH1H101K050BA | | | |
| | | ±5% | C1005CH1H101J050BA | | | |
| 120 pF | 1608 | 0.80±0.10 | ±10% | C1608CH1H101K080AA | | |
| | | | ±5% | C1608CH1H101J080AA | | |
| | 1005 | 0.50±0.05 | ±10% | C1005CH1H121K050BA | | |
| | | | ±5% | C1005CH1H121J050BA | | |
| 1608 | 0.80±0.10 | ±10% | C1608CH1H121K080AA | | | |
| | | ±5% | C1608CH1H121J080AA | | | |
| 150 pF | 1005 | 0.50±0.05 | ±10% | C1005CH1H151K050BA | | |
| | | | ±5% | C1005CH1H151J050BA | | |
| | 1608 | 0.80±0.10 | ±10% | C1608CH1H151K080AA | | |
| | | | ±5% | C1608CH1H151J080AA | | |
| 180 pF | 1005 | 0.50±0.05 | ±10% | C1005CH1H181K050BA | | |
| | | | ±5% | C1005CH1H181J050BA | | |
| | 1608 | 0.80±0.10 | ±10% | C1608CH1H181K080AA | | |
| | | | ±5% | C1608CH1H181J080AA | | |
| 220 pF | 1005 | 0.50±0.05 | ±10% | C1005CH1H221K050BA | | |
| | | | ±5% | C1005CH1H221J050BA | | |
| | 1608 | 0.80±0.10 | ±10% | C1608CH1H221K080AA | | |
| | | | ±5% | C1608CH1H221J080AA | | |
| 270 pF | 1005 | 0.50±0.05 | ±10% | C1005CH1H271K050BA | | |
| | | | ±5% | C1005CH1H271J050BA | | |
| | 1608 | 0.80±0.10 | ±10% | C1608CH1H271K080AA | | |
| | | | ±5% | C1608CH1H271J080AA | | |
| 330 pF | 1005 | 0.50±0.05 | ±10% | C1005CH1H331K050BA | | |
| | | | ±5% | C1005CH1H331J050BA | | |
| | 1608 | 0.80±0.10 | ±10% | C1608CH1H331K080AA | | |
| | | | ±5% | C1608CH1H331J080AA | | |
| 390 pF | 1005 | 0.50±0.05 | ±10% | C1005CH1H391K050BA | | |
| | | | ±5% | C1005CH1H391J050BA | | |
| | 1608 | 0.80±0.10 | ±10% | C1608CH1H391K080AA | | |
| | | | ±5% | C1608CH1H391J080AA | | |

■ The gray items are non-recommended products in the new design.

MULTILAYER CERAMIC CHIP CAPACITORS



Capacitance Range Table

Class 1 (Temperature Compensating)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number |
|-------------|-----------|----------------|-----------------------|------------------------|
| | | | | Rated Voltage Edc: 50V |
| 470 pF | 1005 | 0.50±0.05 | ±10% | C1005CH1H471K050BA |
| | | | ±5% | C1005CH1H471J050BA |
| | 1608 | 0.80±0.10 | ±10% | C1608CH1H471K080AA |
| | | | ±5% | C1608CH1H471J080AA |
| 560 pF | 1005 | 0.50±0.05 | ±10% | C1005CH1H561K050BA |
| | | | ±5% | C1005CH1H561J050BA |
| | 1608 | 0.80±0.10 | ±10% | C1608CH1H561K080AA |
| | | | ±5% | C1608CH1H561J080AA |
| 680 pF | 1005 | 0.50±0.05 | ±10% | C1005CH1H681K050BA |
| | | | ±5% | C1005CH1H681J050BA |
| | 1608 | 0.80±0.10 | ±10% | C1608CH1H681K080AA |
| | | | ±5% | C1608CH1H681J080AA |
| 820 pF | 1005 | 0.50±0.05 | ±10% | C1005CH1H821K050BA |
| | | | ±5% | C1005CH1H821J050BA |
| | 1608 | 0.80±0.10 | ±10% | C1608CH1H821K080AA |
| | | | ±5% | C1608CH1H821J080AA |
| 1 nF | 1005 | 0.50±0.05 | ±10% | C1005CH1H102K050BA |
| | | | ±5% | C1005CH1H102J050BA |
| | 1608 | 0.80±0.10 | ±10% | C1608CH1H102K080AA |
| | | | ±5% | C1608CH1H102J080AA |
| | 2012 | 0.60±0.15 | ±10% | C2012CH1H102K060AA |
| | | | ±5% | C2012CH1H102J060AA |
| 1.2 nF | 1608 | 0.80±0.10 | ±10% | C1608CH1H122K080AA |
| | | | ±5% | C1608CH1H122J080AA |
| | 2012 | 0.60±0.15 | ±10% | C2012CH1H122K060AA |
| | | | ±5% | C2012CH1H122J060AA |
| 1.5 nF | 1608 | 0.80±0.10 | ±10% | C1608CH1H152K080AA |
| | | | ±5% | C1608CH1H152J080AA |
| | 2012 | 0.60±0.15 | ±10% | C2012CH1H152K060AA |
| | | | ±5% | C2012CH1H152J060AA |
| 1.8 nF | 1608 | 0.80±0.10 | ±10% | C1608CH1H182K080AA |
| | | | ±5% | C1608CH1H182J080AA |
| | 2012 | 0.60±0.15 | ±10% | C2012CH1H182K060AA |
| | | | ±5% | C2012CH1H182J060AA |
| 2.2 nF | 1608 | 0.80±0.10 | ±10% | C1608CH1H222K080AA |
| | | | ±5% | C1608CH1H222J080AA |
| | 2012 | 0.60±0.15 | ±10% | C2012CH1H222K060AA |
| | | | ±5% | C2012CH1H222J060AA |
| 2.7 nF | 1608 | 0.80±0.10 | ±10% | C1608CH1H272K080AA |
| | | | ±5% | C1608CH1H272J080AA |
| | 2012 | 0.60±0.15 | ±10% | C2012CH1H272K060AA |
| | | | ±5% | C2012CH1H272J060AA |
| 3.3 nF | 1608 | 0.80±0.10 | ±10% | C1608CH1H332K080AA |
| | | | ±5% | C1608CH1H332J080AA |
| | 2012 | 0.60±0.15 | ±10% | C2012CH1H332K060AA |
| | | | ±5% | C2012CH1H332J060AA |
| | 2012 | 1.25±0.20 | ±10% | C2012CH1H332J125AA |
| | | | ±5% | C2012CH1H332J060AA |
| 3.9 nF | 1608 | 0.80±0.10 | ±10% | C1608CH1H392K080AA |
| | | | ±5% | C1608CH1H392J080AA |
| | 2012 | 0.60±0.15 | ±10% | C2012CH1H392K060AA |
| | | | ±5% | C2012CH1H392J060AA |
| 4.7 nF | 3216 | 0.60±0.15 | ±10% | C3216CH1H392K060AA |
| | | | ±5% | C3216CH1H392J060AA |
| | 1608 | 0.80±0.10 | ±10% | C1608CH1H472K080AA |
| | | | ±5% | C1608CH1H472J080AA |
| 2012 | 0.60±0.15 | ±10% | C2012CH1H472K060AA | |
| | | ±5% | C2012CH1H472J060AA | |
| 3216 | 0.60±0.15 | ±10% | C3216CH1H472K060AA | |
| | | ±5% | C3216CH1H472J060AA | |

■ The gray items are non-recommended products in the new design.

MULTILAYER CERAMIC CHIP CAPACITORS



Capacitance Range Table

Class 1 (Temperature Compensating)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | |
|-------------|-----------|----------------|-----------------------|------------------------|-------------------------|
| | | | | Rated Voltage Edc: 50V | Rated Voltage Edc : 35V |
| 5.6 nF | 1608 | 0.80±0.10 | ±10% | C1608CH1H562K080AA | |
| | | | ±5% | C1608CH1H562J080AA | |
| | 2012 | 0.60±0.15 | ±10% | C2012CH1H562K060AA | |
| | | | ±5% | C2012CH1H562J060AA | |
| | 3216 | 0.60±0.15 | ±10% | C3216CH1H562K060AA | |
| | | | ±5% | C3216CH1H562J060AA | |
| 6.8 nF | 1608 | 0.80±0.10 | ±10% | C1608CH1H682K080AA | |
| | | | ±5% | C1608CH1H682J080AA | |
| | 2012 | 0.60±0.15 | ±10% | C2012CH1H682K060AA | |
| | | | ±5% | C2012CH1H682J060AA | |
| | 3216 | 0.60±0.15 | ±10% | C3216CH1H682K060AA | |
| | | | ±5% | C3216CH1H682J060AA | |
| 8.2 nF | 1608 | 0.80±0.10 | ±10% | C1608CH1H822K080AA | |
| | | | ±5% | C1608CH1H822J080AA | |
| | 2012 | 0.60±0.15 | ±10% | C2012CH1H822K060AA | |
| | | | ±5% | C2012CH1H822J060AA | |
| | 3216 | 0.60±0.15 | ±10% | C3216CH1H822K060AA | |
| | | | ±5% | C3216CH1H822J060AA | |
| 10 nF | 1608 | 0.80±0.10 | ±10% | C1608CH1H103K080AA | C1608CH1V103K080AC |
| | | | ±5% | C1608CH1H103J080AA | C1608CH1V103J080AC |
| | 2012 | 0.60±0.15 | ±10% | C2012CH1H103K060AA | |
| | | | ±5% | C2012CH1H103J060AA | |
| | 3216 | 0.60±0.15 | ±10% | C3216CH1H103K060AA | |
| | | | ±5% | C3216CH1H103J060AA | |
| 15 nF | 1608 | 0.80±0.10 | ±10% | | C1608CH1V153K080AC |
| | | | ±5% | | C1608CH1V153J080AC |
| | 2012 | 0.85±0.15 | ±10% | C2012CH1H153K085AA | |
| | | | ±5% | C2012CH1H153J085AA | |
| | 3216 | 0.60±0.15 | ±10% | C3216CH1H153K060AA | |
| | | | ±5% | C3216CH1H153J060AA | |
| 18 nF | 1608 | 0.80±0.10 | ±10% | | C1608CH1V183K080AC |
| | | | ±5% | | C1608CH1V183J080AC |
| | 2012 | 0.60±0.15 | ±10% | | C2012CH1V183K060AC |
| | | | ±5% | | C2012CH1V183J060AC |
| | 2012 | 0.60±0.15 | ±10% | | C2012CH1V223K060AC |
| | | | ±5% | | C2012CH1V223J060AC |
| 1.25±0.20 | | ±10% | C2012CH1H223K125AA | | |
| | | ±5% | C2012CH1H223J125AA | | |
| 3216 | 0.60±0.15 | ±10% | C3216CH1H223K060AA | | |
| | | ±5% | C3216CH1H223J060AA | | |
| | 3225 | 1.25±0.20 | ±10% | C3225CH1H223K125AA | |
| | | | ±5% | C3225CH1H223J125AA | |
| 27 nF | 2012 | 0.60±0.15 | ±10% | | C2012CH1V273K060AC |
| | | | ±5% | | C2012CH1V273J060AC |
| 30 nF | 2012 | 0.60±0.15 | ±10% | | C2012CH1V303K060AC |
| | | | ±5% | | C2012CH1V303J060AC |
| 33 nF | 2012 | 1.25±0.20 | ±10% | C2012CH1H333K125AA | |
| | | | ±5% | C2012CH1H333J125AA | |
| | 3216 | 0.85±0.15 | ±10% | C3216CH1H333K085AA | |
| | | | ±5% | C3216CH1H333J085AA | |
| | 3225 | 1.60±0.20 | ±10% | C3225CH1H333K160AA | |
| | | | ±5% | C3225CH1H333J160AA | |
| 47 nF | 3216 | 1.15±0.15 | ±10% | C3216CH1H473K115AA | |
| | | | ±5% | C3216CH1H473J115AA | |
| | 3225 | 2.00±0.20 | ±10% | C3225CH1H473K200AA | |
| | | | ±5% | C3225CH1H473J200AA | |
| | 4532 | 1.60±0.20 | ±10% | C4532CH1H473K160KA | |
| | | | ±5% | C4532CH1H473J160KA | |
| 68 nF | 3216 | 1.60±0.20 | ±10% | C3216CH1H683K160AA | |
| | | | ±5% | C3216CH1H683J160AA | |
| | 3225 | 2.00±0.20 | ±10% | C3225CH1H683K200AA | |
| | | | ±5% | C3225CH1H683J200AA | |
| | 4532 | 1.60±0.20 | ±10% | C4532CH1H683K160KA | |
| | | | ±5% | C4532CH1H683J160KA | |

⚠ 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

Class 1 (Temperature Compensating)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | |
|-------------|-----------|----------------|-----------------------|------------------------|--|
| | | | | Rated Voltage Edc: 50V | |
| 100 nF | 3216 | 1.60±0.20 | ±10% | C3216CH1H104K160AA | |
| | | | ±5% | C3216CH1H104J160AA | |
| | 3225 | 2.50±0.30 | ±10% | C3225CH1H104K250AA | |
| | | | ±5% | C3225CH1H104J250AA | |
| 4532 | 2.00±0.20 | ±10% | C4532CH1H104K200KA | | |
| | | ±5% | C4532CH1H104J200KA | | |
| 150 nF | 4532 | 2.50±0.30 | ±10% | C4532CH1H154K250KA | |
| | | | ±5% | C4532CH1H154J250KA | |
| 220 nF | 4532 | 3.20±0.30 | ±10% | C4532CH1H224K320KA | |
| | | | ±5% | C4532CH1H224J320KA | |

Class 2 (Temperature Stable)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | |
|-------------|------|----------------|-----------------------|------------------------|------------------------|------------------------|
| | | | | Rated Voltage Edc: 50V | Rated Voltage Edc: 25V | Rated Voltage Edc: 16V |
| 100 pF | 0402 | 0.20±0.02 | ±10% | | | C0402JB1C101K020BC |
| | | | ±20% | | | C0402JB1C101M020BC |
| | 0603 | 0.30±0.03 | ±10% | | C0603JB1E101K030BA | |
| | | | ±20% | | C0603JB1E101M030BA | |
| 150 pF | 0402 | 0.20±0.02 | ±10% | | | C0402JB1C151K020BC |
| | | | ±20% | | | C0402JB1C151M020BC |
| | 0603 | 0.30±0.03 | ±10% | | C0603JB1E151K030BA | |
| | | | ±20% | | C0603JB1E151M030BA | |
| 220 pF | 0402 | 0.20±0.02 | ±10% | | | C0402JB1C221K020BC |
| | | | ±20% | | | C0402JB1C221M020BC |
| | 0603 | 0.30±0.03 | ±10% | | C0603JB1E221K030BA | |
| | | | ±20% | | C0603JB1E221M030BA | |
| 330 pF | 0402 | 0.20±0.02 | ±10% | | | C0402JB1C331K020BC |
| | | | ±20% | | | C0402JB1C331M020BC |
| | 0603 | 0.30±0.03 | ±10% | | C0603JB1E331K030BA | |
| | | | ±20% | | C0603JB1E331M030BA | |
| 470 pF | 0402 | 0.20±0.02 | ±10% | | | C0402JB1C471K020BC |
| | | | ±20% | | | C0402JB1C471M020BC |
| | 0603 | 0.30±0.03 | ±10% | | C0603JB1E471K030BA | |
| | | | ±20% | | C0603JB1E471M030BA | |
| 680 pF | 0402 | 0.20±0.02 | ±10% | | | C0402JB1C681K020BC |
| | | | ±20% | | | C0402JB1C681M020BC |
| | 0603 | 0.30±0.03 | ±10% | | C0603JB1E681K030BA | |
| | | | ±20% | | C0603JB1E681M030BA | |
| 1 nF | 0603 | 0.30±0.03 | ±10% | | | C0603JB1E102K030BA |
| | | | ±20% | | | C0603JB1E102M030BA |
| | 1005 | 0.50±0.05 | ±10% | | C1005JB1H102K050BA | |
| | | | ±20% | | C1005JB1H102M050BA | |
| 1.5 nF | 0603 | 0.30±0.03 | ±10% | | | C0603JB1E152K030BA |
| | | | ±20% | | | C0603JB1E152M030BA |
| | 1005 | 0.50±0.05 | ±10% | | C1005JB1H152K050BA | |
| | | | ±20% | | C1005JB1H152M050BA | |
| 2.2 nF | 0603 | 0.30±0.03 | ±10% | | | C0603JB1E222K030BA |
| | | | ±20% | | | C0603JB1E222M030BA |
| | 1005 | 0.50±0.05 | ±10% | | C1005JB1H222K050BA | |
| | | | ±20% | | C1005JB1H222M050BA | |
| 3.3 nF | 0603 | 0.30±0.03 | ±10% | | | C0603JB1E332K030BA |
| | | | ±20% | | | C0603JB1E332M030BA |
| | 1005 | 0.50±0.05 | ±10% | | C1005JB1H332K050BA | |
| | | | ±20% | | C1005JB1H332M050BA | |
| 4.7 nF | 0603 | 0.30±0.03 | ±10% | | | C0603JB1C472K030BA |
| | | | ±20% | | | C0603JB1C472M030BA |
| | 1005 | 0.50±0.05 | ±10% | | C1005JB1H472K050BA | |
| | | | ±20% | | C1005JB1H472M050BA | |

■ The gray items are non-recommended products in the new design.

⚠ 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

Class 2 (Temperature Stable)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | | |
|-------------|-----------|----------------|-----------------------|------------------------|------------------------|------------------------|------------------------|
| | | | | Rated Voltage Edc: 50V | Rated Voltage Edc: 35V | Rated Voltage Edc: 25V | Rated Voltage Edc: 16V |
| 6.8 nF | 1005 | 0.50±0.05 | ±10% | C1005JB1H682K050BA | | | |
| | | | ±20% | C1005JB1H682M050BA | | | |
| 10 nF | 1005 | 0.50±0.05 | ±10% | C1005JB1H103K050BB | | C1005JB1E103K050BA | |
| | | | ±20% | C1005JB1H103M050BB | | C1005JB1E103M050BA | |
| | 1608 | 0.80±0.10 | ±10% | C1608JB1H103K080AA | | | |
| | | | ±20% | C1608JB1H103M080AA | | | |
| 15 nF | 1005 | 0.50±0.05 | ±10% | C1005JB1H153K050BB | | C1005JB1E153K050BA | C1005JB1C153K050BA |
| | | | ±20% | C1005JB1H153M050BB | | C1005JB1E153M050BA | C1005JB1C153M050BA |
| | 1608 | 0.80±0.10 | ±10% | C1608JB1H153K080AA | | | |
| | | | ±20% | C1608JB1H153M080AA | | | |
| 22 nF | 0603 | 0.30±0.03 | ±10% | | | C0603JB1E223K030BB | |
| | | | ±20% | | | C0603JB1E223M030BB | |
| | 1005 | 0.50±0.05 | ±10% | C1005JB1H223K050BB | | C1005JB1E223K050BA | C1005JB1C223K050BA |
| | | | ±20% | C1005JB1H223M050BB | | C1005JB1E223M050BA | C1005JB1C223M050BA |
| 1608 | 0.80±0.10 | ±10% | C1608JB1H223K080AA | | | | |
| | | ±20% | C1608JB1H223M080AA | | | | |
| 33 nF | 1005 | 0.50±0.05 | ±10% | C1005JB1H333K050BB | | C1005JB1E333K050BA | C1005JB1C333K050BA |
| | | | ±20% | C1005JB1H333M050BB | | C1005JB1E333M050BA | C1005JB1C333M050BA |
| | 1608 | 0.80±0.10 | ±10% | C1608JB1H333K080AA | | | |
| | | | ±20% | C1608JB1H333M080AA | | | |
| 0603 | 0.30±0.03 | ±10% | | | C0603JB1E473K030BB | | |
| | | ±20% | | | C0603JB1E473M030BB | | |
| 47 nF | 1005 | 0.50±0.05 | ±10% | C1005JB1H473K050BB | | C1005JB1E473K050BA | C1005JB1C473K050BA |
| | | | ±20% | C1005JB1H473M050BB | | C1005JB1E473M050BA | C1005JB1C473M050BA |
| | 1608 | 0.80±0.10 | ±10% | C1608JB1H473K080AA | | | |
| | | | ±20% | C1608JB1H473M080AA | | | |
| 68 nF | 1005 | 0.50±0.05 | ±10% | C1005JB1H683K050BB | C1005JB1V683K050BB | C1005JB1E683K050BC | C1005JB1C683K050BA |
| | | | ±20% | C1005JB1H683M050BB | C1005JB1V683M050BB | C1005JB1E683M050BC | C1005JB1C683M050BA |
| | 1608 | 0.80±0.10 | ±10% | C1608JB1H683K080AA | | | |
| | | | ±20% | C1608JB1H683M080AA | | | |
| 0603 | 0.30±0.03 | ±10% | | | C0603JB1E104K030BB | C0603JB1C104K030BC | |
| | | ±20% | | | C0603JB1E104M030BB | C0603JB1C104M030BC | |
| 100 nF | 1005 | 0.50±0.05 | ±10% | C1005JB1H104K050BB | C1005JB1V104K050BB | C1005JB1E104K050BC | C1005JB1C104K050BA |
| | | | ±20% | C1005JB1H104M050BB | C1005JB1V104M050BB | C1005JB1E104M050BC | C1005JB1C104M050BA |
| | 1608 | 0.80±0.10 | ±10% | C1608JB1H104K080AA | | | |
| | | | ±20% | C1608JB1H104M080AA | | | |
| 2012 | 0.85±0.15 | ±10% | C2012JB1H104K085AA | | | | |
| | | ±20% | C2012JB1H104M085AA | | | | |
| 150 nF | 0603 | 0.30±0.03 | ±10% | | | | C0603JB1C154K030BC |
| | | | ±20% | | | | C0603JB1C154M030BC |
| | 0.30±0.05 | ±10% | | | C0603JB1E154K030BC | | |
| | | ±20% | | | C0603JB1E154M030BC | | |
| | 1005 | 0.50±0.05 | ±10% | | | C1005JB1E154K050BC | C1005JB1C154K050BB |
| | | | ±20% | | | C1005JB1E154M050BC | C1005JB1C154M050BB |
| | 1608 | 0.80±0.10 | ±10% | C1608JB1H154K080AB | C1608JB1V154K080AB | C1608JB1E154K080AA | |
| | | | ±20% | C1608JB1H154M080AB | C1608JB1V154M080AB | C1608JB1E154M080AA | |
| 2012 | 0.85±0.15 | ±10% | C2012JB1H154K085AA | | | | |
| | | ±20% | C2012JB1H154M085AA | | | | |
| 220 nF | 0603 | 0.30±0.03 | ±10% | | | | C0603JB1C224K030BC |
| | | | ±20% | | | | C0603JB1C224M030BC |
| | 0.30±0.05 | ±10% | | | C0603JB1E224K030BC | | |
| | | ±20% | | | C0603JB1E224M030BC | | |
| 1005 | 0.50±0.05 | ±10% | | | C1005JB1E224K050BC | C1005JB1C224K050BB | |
| | | ±20% | | | C1005JB1E224M050BC | C1005JB1C224M050BB | |
| 1608 | 0.80±0.10 | ±10% | C1608JB1H224K080AB | C1608JB1V224K080AB | C1608JB1E224K080AA | | |
| | | ±20% | C1608JB1H224M080AB | C1608JB1V224M080AB | C1608JB1E224M080AA | | |
| 2012 | 1.25±0.20 | ±10% | C2012JB1H224K125AA | | | | |
| | | ±20% | C2012JB1H224M125AA | | | | |
| 330 nF | 1005 | 0.50±0.05 | ±10% | | C1005JB1V334K050BC | C1005JB1E334K050BB | C1005JB1C334K050BC |
| | | | ±20% | | C1005JB1V334M050BC | C1005JB1E334M050BB | C1005JB1C334M050BC |
| | 1608 | 0.80±0.10 | ±10% | C1608JB1H334K080AB | C1608JB1V334K080AB | C1608JB1E334K080AC | C1608JB1C334K080AA |
| | | | ±20% | C1608JB1H334M080AB | C1608JB1V334M080AB | C1608JB1E334M080AC | C1608JB1C334M080AA |

■ The gray items are non-recommended products in the new design.

⚠ 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

Class 2 (Temperature Stable)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | | | |
|-------------|-----------|------------------|-----------------------|------------------------|------------------------|------------------------|------------------------|--------------------|
| | | | | Rated Voltage Edc: 50V | Rated Voltage Edc: 35V | Rated Voltage Edc: 25V | Rated Voltage Edc: 16V | |
| 330 nF | 2012 | 1.25±0.20 | ±10% | C2012JB1H334K125AA | | | | |
| | | | ±20% | C2012JB1H334M125AA | | | | |
| 470 nF | 1005 | 0.50±0.05 | ±10% | | C1005JB1V474K050BC | C1005JB1E474K050BB | C1005JB1C474K050BC | |
| | | | ±20% | | C1005JB1V474M050BC | C1005JB1E474M050BB | C1005JB1C474M050BC | |
| | 1608 | 0.80±0.10 | ±10% | C1608JB1H474K080AB | C1608JB1V474K080AB | C1608JB1E474K080AC | C1608JB1C474K080AA | |
| | | | ±20% | C1608JB1H474M080AB | C1608JB1V474M080AB | C1608JB1E474M080AC | C1608JB1C474M080AA | |
| | 2012 | 1.25±0.20 | ±10% | C2012JB1H474K125AB | | | | |
| | | | ±20% | C2012JB1H474M125AB | | | | |
| 680 nF | 1005 | 0.50±0.05 | ±10% | | C1005JB1V684K050BC | C1005JB1E684K050BC | C1005JB1C684K050BC | |
| | | | ±20% | | C1005JB1V684M050BC | C1005JB1E684M050BC | C1005JB1C684M050BC | |
| | 1608 | 0.80±0.10 | ±10% | C1608JB1H684K080AB | C1608JB1V684K080AB | C1608JB1E684K080AC | C1608JB1C684K080AA | |
| | | | ±20% | C1608JB1H684M080AB | C1608JB1V684M080AB | C1608JB1E684M080AC | C1608JB1C684M080AA | |
| | 2012 | 1.25±0.20 | ±10% | C2012JB1H684K125AB | | C2012JB1E684K125AA | | |
| | | | ±20% | C2012JB1H684M125AB | | C2012JB1E684M125AA | | |
| 1 µF | 1005 | 0.50±0.05 | ±10% | | C1005JB1V105K050BC | C1005JB1E105K050BC | C1005JB1C105K050BC | |
| | | | ±20% | | C1005JB1V105M050BC | C1005JB1E105M050BC | C1005JB1C105M050BC | |
| | 1608 | 0.80±0.10 | ±10% | C1608JB1H105K080AB | C1608JB1V105K080AB | C1608JB1E105K080AC | C1608JB1C105K080AA | |
| | | | ±20% | C1608JB1H105M080AB | C1608JB1V105M080AB | C1608JB1E105M080AC | C1608JB1C105M080AA | |
| | 2012 | 0.85±0.15 | ±10% | C2012JB1H105K085AB | C2012JB1V105K085AB | C2012JB1E105K085AC | C2012JB1C105K085AA | |
| | | | ±20% | C2012JB1H105M085AB | C2012JB1V105M085AB | C2012JB1E105M085AC | C2012JB1C105M085AA | |
| | 2012 | 1.25±0.20 | ±10% | C2012JB1H105K125AB | | C2012JB1E105K125AA | | |
| | | | ±20% | C2012JB1H105M125AB | | C2012JB1E105M125AA | | |
| | 3216 | 1.60±0.20 | ±10% | C3216JB1H105K160AA | | | | |
| | | | ±20% | C3216JB1H105M160AA | | | | |
| | 1.5 µF | 1005 | 0.50±0.05 | ±10% | | | | C1005JB1C155K050BC |
| | | | | ±20% | | | | C1005JB1C155M050BC |
| 1005 | | 0.50±0.10 | ±10% | | | C1005JB1E155K050BC | | |
| | | | ±20% | | | C1005JB1E155M050BC | | |
| 1005 | | 0.50+0.15/-0.10 | ±10% | | C1005JB1V155K050BC | | | |
| | | | ±20% | | C1005JB1V155M050BC | | | |
| 1608 | | 0.80±0.10 | ±10% | | C1608JB1V155K080AC | C1608JB1E155K080AB | C1608JB1C155K080AB | |
| | | | ±20% | | C1608JB1V155M080AC | C1608JB1E155M080AB | C1608JB1C155M080AB | |
| 2012 | | 0.85±0.15 | ±10% | | | C2012JB1E155K085AC | | |
| | | | ±20% | | | C2012JB1E155M085AC | | |
| 2012 | | 1.25±0.20 | ±10% | C2012JB1H155K125AB | C2012JB1V155K125AB | C2012JB1E155K125AB | C2012JB1C155K125AA | |
| | | | ±20% | C2012JB1H155M125AB | C2012JB1V155M125AB | C2012JB1E155M125AB | C2012JB1C155M125AA | |
| 3216 | 1.60±0.20 | ±10% | C3216JB1H155K160AB | | | | | |
| | | ±20% | C3216JB1H155M160AB | | | | | |
| 2.2 µF | 1005 | 0.50±0.05 | ±10% | | | | C1005JB1C225K050BC | |
| | | | ±20% | | | | C1005JB1C225M050BC | |
| | 1005 | 0.50±0.10 | ±10% | | | C1005JB1E225K050BC | | |
| | | | ±20% | | | C1005JB1E225M050BC | | |
| | 1005 | 0.50+0.15/-0.10 | ±10% | | C1005JB1V225K050BC | | | |
| | | | ±20% | | C1005JB1V225M050BC | | | |
| | 1608 | 0.80±0.10 | ±10% | | C1608JB1V225K080AC | C1608JB1E225K080AB | C1608JB1C225K080AB | |
| | | | ±20% | | C1608JB1V225M080AC | C1608JB1E225M080AB | C1608JB1C225M080AB | |
| | 2012 | 0.85±0.15 | ±10% | C2012JB1H225K085AB | C2012JB1V225K085AB | C2012JB1E225K085AB | C2012JB1C225K085AC | |
| | | | ±20% | C2012JB1H225M085AB | C2012JB1V225M085AB | C2012JB1E225M085AB | C2012JB1C225M085AC | |
| | 2012 | 1.25±0.20 | ±10% | C2012JB1H225K125AB | C2012JB1V225K125AB | C2012JB1E225K125AC | C2012JB1C225K125AA | |
| | | | ±20% | C2012JB1H225M125AB | C2012JB1V225M125AB | C2012JB1E225M125AC | C2012JB1C225M125AA | |
| 3216 | 1.60±0.20 | ±10% | C3216JB1H225K160AB | | | | | |
| | | ±20% | C3216JB1H225M160AB | | | | | |
| 3225 | 2.00±0.20 | ±10% | C3225JB1H225K200AA | | | | | |
| | | ±20% | C3225JB1H225M200AA | | | | | |
| 3.3 µF | 1608 | 0.80±0.10 | ±10% | | | C1608JB1E335K080AC | C1608JB1C335K080AC | |
| | | | ±20% | | | C1608JB1E335M080AC | C1608JB1C335M080AC | |
| | 1608 | 0.80+0.20, -0.10 | ±10% | | C1608JB1V335K080AC | | | |
| | | | ±20% | | C1608JB1V335M080AC | | | |
| | 2012 | 0.60±0.15 | ±10% | | | | C2012JB1C335K060AC | |
| | | | ±20% | | | | C2012JB1C335M060AC | |
| 2012 | 0.85±0.15 | ±10% | | | C2012JB1E335K085AC | C2012JB1C335K085AB | | |
| | | ±20% | | | C2012JB1E335M085AC | C2012JB1C335M085AB | | |
| 3216 | 1.60±0.20 | ±10% | C2012JB1H335K125AB | C2012JB1V335K125AC | C2012JB1E335K125AB | C2012JB1C335K125AC | | |
| | | ±20% | C2012JB1H335M125AB | C2012JB1V335M125AC | C2012JB1E335M125AB | C2012JB1C335M125AC | | |
| 3216 | 1.60±0.20 | ±10% | C3216JB1H335K160AB | C3216JB1V335K160AB | C3216JB1E335K160AA | | | |
| | | ±20% | C3216JB1H335M160AB | C3216JB1V335M160AB | C3216JB1E335M160AA | | | |

⚠ 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

Class 2 (Temperature Stable)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | | | |
|-------------|-----------|------------------|-----------------------|------------------------|------------------------|------------------------|------------------------|--------------------|
| | | | | Rated Voltage Edc: 50V | Rated Voltage Edc: 35V | Rated Voltage Edc: 25V | Rated Voltage Edc: 16V | |
| 3.3 μF | 3225 | 2.50±0.30 | ±10% | C3225JB1H335K250AA | | | | |
| | | | ±20% | C3225JB1H335M250AA | | | | |
| | 1608 | 0.80±0.10 | ±10% | | C1608JB1E475K080AC | C1608JB1C475K080AC | | |
| | | | ±20% | | C1608JB1E475M080AC | C1608JB1C475M080AC | | |
| | | 0.80+0.20, -0.10 | ±10% | C1608JB1V475K080AC | | | | |
| | | | ±20% | C1608JB1V475M080AC | | | | |
| | 2012 | 0.60±0.15 | ±10% | | | C2012JB1C475K060AC | | |
| | | | ±20% | | | C2012JB1C475M060AC | | |
| | 4.7 μF | 2012 | 0.85±0.15 | ±10% | | C2012JB1E475K085AC | C2012JB1C475K085AB | |
| | | | | ±20% | | C2012JB1E475M085AC | C2012JB1C475M085AB | |
| | | 3216 | 1.25±0.20 | ±10% | C2012JB1H475K125AB | C2012JB1V475K125AC | C2012JB1E475K125AB | C2012JB1C475K125AC |
| | | | | ±20% | C2012JB1H475M125AB | C2012JB1V475M125AC | C2012JB1E475M125AB | C2012JB1C475M125AC |
| 0.85±0.10 | | | ±10% | C3216JB1H475K085AB | C3216JB1V475K085AB | C3216JB1E475K085AB | | |
| | | | ±20% | C3216JB1H475M085AB | C3216JB1V475M085AB | C3216JB1E475M085AB | | |
| 3216 | | 1.15±0.10 | ±10% | | | C3216JB1E475K115AB | | |
| | | | ±20% | | | C3216JB1E475M115AB | | |
| 3225 | | 2.50±0.30 | ±10% | C3216JB1H475K160AB | C3216JB1V475K160AB | C3216JB1E475K160AA | | |
| | | | ±20% | C3216JB1H475M160AB | C3216JB1V475M160AB | C3216JB1E475M160AA | | |
| 6.8 μF | | 1608 | 0.80+0.20, -0.10 | ±10% | | C1608JB1E685K080AC | C1608JB1C685K080AB | |
| | | | | ±20% | | C1608JB1E685M080AC | C1608JB1C685M080AB | |
| | 2012 | 0.85±0.15 | ±10% | | | C2012JB1C685K085AC | | |
| | | | ±20% | | | C2012JB1C685M085AC | | |
| | | 1.25±0.20 | ±10% | C2012JB1V685K125AC | C2012JB1E685K125AC | C2012JB1C685K125AC | | |
| | | | ±20% | C2012JB1V685M125AC | C2012JB1E685M125AC | C2012JB1C685M125AC | | |
| | 3216 | 1.60±0.20 | ±10% | C3216JB1H685K160AB | C3216JB1V685K160AB | C3216JB1E685K160AB | C3216JB1C685K160AA | |
| | | | ±20% | C3216JB1H685M160AB | C3216JB1V685M160AB | C3216JB1E685M160AB | C3216JB1C685M160AA | |
| | 3225 | 2.00±0.20 | ±10% | | | C3225JB1E685K200AA | C3225JB1C685K200AA | |
| | | | ±20% | | | C3225JB1E685M200AA | C3225JB1C685M200AA | |
| | 4532 | 2.50±0.30 | ±10% | C3225JB1H685K250AB | | | | |
| | | | ±20% | C3225JB1H685M250AB | | | | |
| 10 μF | 1608 | 0.80+0.20, -0.10 | ±10% | | | C4532JB1E106K250KA | C4532JB1C106K250KA | |
| | | | ±20% | | | C4532JB1E106M250KA | C4532JB1C106M250KA | |
| | 2012 | 0.85±0.15 | ±10% | | C2012JB1V106K085AC | C2012JB1E106K085AC | C2012JB1C106K085AC | |
| | | | ±20% | | C2012JB1V106M085AC | C2012JB1E106M085AC | C2012JB1C106M085AC | |
| | | 1.25±0.20 | ±10% | C2012JB1V106K125AC | C2012JB1E106K125AB | C2012JB1C106K125AB | | |
| | | | ±20% | C2012JB1V106M125AC | C2012JB1E106M125AB | C2012JB1C106M125AB | | |
| | 3216 | 0.85±0.10 | ±10% | | C3216JB1E106K085AC | C3216JB1C106K085AB | | |
| | | | ±20% | | C3216JB1E106M085AC | C3216JB1C106M085AB | | |
| | 3216 | 1.60±0.20 | ±10% | C3216JB1H106K160AB | C3216JB1V106K160AB | C3216JB1E106K160AB | C3216JB1C106K160AA | |
| | | | ±20% | C3216JB1H106M160AB | C3216JB1V106M160AB | C3216JB1E106M160AB | C3216JB1C106M160AA | |
| | 3225 | 2.00±0.20 | ±10% | | | C3225JB1C106K200AA | | |
| | | | ±20% | | | C3225JB1C106M200AA | | |
| 4532 | 2.50±0.30 | ±10% | C3225JB1H106K250AB | | C3225JB1E106K250AA | | | |
| | | ±20% | C3225JB1H106M250AB | | C3225JB1E106M250AA | | | |
| 15 μF | 2012 | 1.25±0.20 | ±10% | | C2012JB1V156M125AC | C2012JB1E156M125AC | C2012JB1C156M125AC | |
| | | | ±20% | | C3216JB1V156M160AC | C3216JB1E156M160AB | C3216JB1C156M160AB | |
| | 3225 | 2.50±0.30 | ±10% | | | | C3225JB1C156M250AA | |
| | | | ±20% | | | | | |
| | 4532 | 2.50±0.30 | ±10% | | | C4532JB1E156M250KA | | |
| | | | ±20% | | | | | |
| 22 μF | 2012 | 0.85±0.15 | ±10% | | | C2012JB1C226M085AC | | |
| | | | ±20% | | | | | |
| | 3216 | 1.60±0.20 | ±10% | | C2012JB1V226M125AC | C2012JB1E226M125AC | C2012JB1C226M125AC | |
| | | | ±20% | | C3216JB1V226M160AC | C3216JB1E226M160AB | C3216JB1C226M160AB | |
| | 3225 | 2.50±0.30 | ±10% | | | | C3225JB1C226M250AA | |
| | | | ±20% | | | | C4532JB1C226M200KA | |
| 4532 | 2.50±0.30 | ±10% | | | C4532JB1E226M250KA | | | |
| | | ±20% | | | | | | |
| 5750 | 2.50±0.30 | ±20% | | | C5750JB1E226M250KA | | | |

⚠ 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

Class 2 (Temperature Stable)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | |
|-------------|------|----------------|-----------------------|------------------------|------------------------|
| | | | | Rated Voltage Edc: 25V | Rated Voltage Edc: 16V |
| 33 µF | 3216 | 1.60±0.20 | ±20% | C3216JB1E336M160AC | C3216JB1C336M160AB |
| | 4532 | 2.50±0.30 | ±20% | | C4532JB1C336M250KA |
| 47 µF | 3216 | 1.60±0.20 | ±20% | C3216JB1E476M160AC | C3216JB1C476M160AB |

Class 2 (Temperature Stable)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | |
|-------------|------|----------------|-----------------------|------------------------|--------------------------|------------------------|
| | | | | Rated Voltage Edc: 10V | Rated Voltage Edc : 6.3V | Rated Voltage Edc : 4V |
| 1 nF | 0402 | 0.20±0.02 | ±10% | C0402JB1A102K020BC | C0402JB0J102K020BC | C0402JB0G102K020BC |
| | | | ±20% | C0402JB1A102M020BC | C0402JB0J102M020BC | C0402JB0G102M020BC |
| 1.5 nF | 0402 | 0.20±0.02 | ±10% | C0402JB1A152K020BC | C0402JB0J152K020BC | C0402JB0G152K020BC |
| | | | ±20% | C0402JB1A152M020BC | C0402JB0J152M020BC | C0402JB0G152M020BC |
| 2.2 nF | 0402 | 0.20±0.02 | ±10% | C0402JB1A222K020BC | C0402JB0J222K020BC | C0402JB0G222K020BC |
| | | | ±20% | C0402JB1A222M020BC | C0402JB0J222M020BC | C0402JB0G222M020BC |
| 3.3 nF | 0402 | 0.20±0.02 | ±10% | C0402JB1A332K020BC | C0402JB0J332K020BC | C0402JB0G332K020BC |
| | | | ±20% | C0402JB1A332M020BC | C0402JB0J332M020BC | C0402JB0G332M020BC |
| 4.7 nF | 0402 | 0.20±0.02 | ±10% | C0402JB1A472K020BC | C0402JB0J472K020BC | C0402JB0G472K020BC |
| | | | ±20% | C0402JB1A472M020BC | C0402JB0J472M020BC | C0402JB0G472M020BC |
| 6.8 nF | 0402 | 0.20±0.02 | ±10% | C0402JB1A682K020BC | C0402JB0J682K020BC | C0402JB0G682K020BC |
| | | | ±20% | C0402JB1A682M020BC | C0402JB0J682M020BC | C0402JB0G682M020BC |
| 10 nF | 0603 | 0.30±0.03 | ±10% | C0603JB1A682K030BA | | |
| | | | ±20% | C0603JB1A682M030BA | | |
| 10 nF | 0402 | 0.20±0.02 | ±10% | C0402JB1A103K020BC | C0402JB0J103K020BC | C0402JB0G103K020BC |
| | | | ±20% | C0402JB1A103M020BC | C0402JB0J103M020BC | C0402JB0G103M020BC |
| 15 nF | 0603 | 0.30±0.03 | ±10% | C0603JB1A103K030BA | | |
| | | | ±20% | C0603JB1A103M030BA | | |
| 22 nF | 0603 | 0.30±0.03 | ±10% | C0603JB1A153K030BC | C0603JB0J153K030BA | |
| | | | ±20% | C0603JB1A153M030BC | C0603JB0J153M030BA | |
| 33 nF | 0603 | 0.30±0.03 | ±10% | C0603JB1A223K030BC | C0603JB0J223K030BC | |
| | | | ±20% | C0603JB1A223M030BC | C0603JB0J223M030BC | |
| 47 nF | 0603 | 0.30±0.03 | ±10% | C0603JB1A333K030BC | C0603JB0J333K030BC | |
| | | | ±20% | C0603JB1A333M030BC | C0603JB0J333M030BC | |
| 47 nF | 1005 | 0.50±0.05 | ±10% | C0603JB1A473K030BC | C0603JB0J473K030BC | |
| | | | ±20% | C0603JB1A473M030BC | C0603JB0J473M030BC | |
| 68 nF | 0603 | 0.30±0.03 | ±10% | C1005JB1A473K050BA | | |
| | | | ±20% | C1005JB1A473M050BA | | |
| 68 nF | 0603 | 0.30±0.03 | ±10% | C0603JB1A683K030BC | C0603JB0J683K030BC | |
| | | | ±20% | C0603JB1A683M030BC | C0603JB0J683M030BC | |
| 100 nF | 1005 | 0.50±0.05 | ±10% | C1005JB1A683K050BA | | |
| | | | ±20% | C1005JB1A683M050BA | | |
| 100 nF | 0603 | 0.30±0.03 | ±10% | C0603JB1A104K030BC | C0603JB0J104K030BC | |
| | | | ±20% | C0603JB1A104M030BC | C0603JB0J104M030BC | |
| 150 nF | 1005 | 0.50±0.05 | ±10% | C1005JB1A104K050BA | | |
| | | | ±20% | C1005JB1A104M050BA | | |
| 150 nF | 0603 | 0.30±0.03 | ±10% | C0603JB1A154K030BB | C0603JB0J154K030BB | |
| | | | ±20% | C0603JB1A154M030BB | C0603JB0J154M030BB | |
| 220 nF | 1005 | 0.50±0.05 | ±10% | C1005JB1A154K050BC | C1005JB0J154K050BB | |
| | | | ±20% | C1005JB1A154M050BC | C1005JB0J154M050BB | |
| 220 nF | 0603 | 0.30±0.03 | ±10% | C0603JB1A224K030BB | C0603JB0J224K030BB | |
| | | | ±20% | C0603JB1A224M030BB | C0603JB0J224M030BB | |
| 330 nF | 1005 | 0.50±0.05 | ±10% | C1005JB1A224K050BC | C1005JB0J224K050BB | |
| | | | ±20% | C1005JB1A224M050BC | C1005JB0J224M050BB | |
| 330 nF | 0603 | 0.30±0.03 | ±10% | C0603JB1A334K030BC | | |
| | | | ±20% | C0603JB1A334M030BC | | |
| 470 nF | 1005 | 0.50±0.05 | ±10% | C1005JB1A334K050BC | C1005JB0J334K050BB | |
| | | | ±20% | C1005JB1A334M050BC | C1005JB0J334M050BB | |
| 470 nF | 0603 | 0.30±0.03 | ±10% | C0603JB1A474K030BC | C0603JB0J474M030BC | |
| | | | ±20% | C0603JB1A474M030BC | | |
| 470 nF | 1005 | 0.50±0.05 | ±10% | C1005JB1A474K050BC | C1005JB0J474K050BB | |
| | | | ±20% | C1005JB1A474M050BC | C1005JB0J474M050BB | |

- The gray items are non-recommended products in the new design.
- The red items are products of the production will be stopped. Please confirm the schedule on product details information.

⚠ 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

Class 2 (Temperature Stable)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | |
|-------------|------|------------------|-----------------------|------------------------|-------------------------|-----------------------|
| | | | | Rated Voltage Edc: 10V | Rated Voltage Edc: 6.3V | Rated Voltage Edc: 4V |
| 680 nF | 1005 | 0.50±0.05 | ±10% | C1005JB1A684K050BC | C1005JB0J684K050BB | |
| | | | ±20% | C1005JB1A684M050BC | C1005JB0J684M050BB | |
| | 1608 | 0.80+0.15/-0.10 | ±10% | C1608JB1A684K080AC | | |
| 1 µF | 1005 | 0.50±0.05 | ±10% | C1005JB1A105K050BB | C1005JB0J105K050BB | |
| | | | ±20% | C1005JB1A105M050BB | C1005JB0J105M050BB | |
| | 1608 | 0.80+0.15/-0.10 | ±10% | C1608JB1A105K080AC | | |
| 1.5 µF | 1005 | 0.50±0.05 | ±10% | C1005JB1A155K050BC | C1005JB0J155K050BB | |
| | | | ±20% | C1005JB1A155M050BC | C1005JB0J155M050BB | |
| | 1608 | 0.80±0.10 | ±10% | C1608JB1A155K080AC | C1608JB0J155K080AB | |
| 2.2 µF | 1005 | 0.50±0.05 | ±10% | C1005JB1A225K050BC | C1005JB0J225K050BC | C1005JB0G225K050BB |
| | | | ±20% | C1005JB1A225M050BC | C1005JB0J225M050BC | C1005JB0G225M050BB |
| | 1608 | 0.80±0.10 | ±10% | C1608JB1A225K080AC | C1608JB0J225K080AB | |
| 3.3 µF | 1005 | 0.50±0.05 | ±10% | C1005JB1A335K050BC | C1005JB0J335K050BC | C1005JB0G335K050BB |
| | | | ±20% | C1005JB1A335M050BC | C1005JB0J335M050BC | C1005JB0G335M050BB |
| | 1608 | 0.80+0.15, -0.10 | ±10% | C1608JB0J335K080AB | C1608JB0J335M080AB | |
| 4.7 µF | 1005 | 0.50+0.15/-0.10 | ±10% | C1005JB1A475K050BC | C1005JB0J475K050BC | C1005JB0G475K050BB |
| | | | ±20% | C1005JB1A475M050BC | C1005JB0J475M050BC | C1005JB0G475M050BB |
| | 1608 | 0.80+0.15, -0.10 | ±10% | C1608JB0J475K080AB | C1608JB0J475M080AB | |
| 6.8 µF | 1005 | 0.50±0.15/-0.10 | ±10% | C1005JB1A685K050BC | C1005JB0J685K050BC | |
| | | | ±20% | C1005JB1A685M050BC | C1005JB0J685M050BC | |
| | 1608 | 0.80±0.10 | ±10% | C1608JB1A685K080AC | C1608JB0J685K080AB | |
| 10 µF | 1005 | 0.50±0.15/-0.10 | ±10% | C1005JB1A106K050BC | C1005JB0J106K050BC | |
| | | | ±20% | C1005JB1A106M050BC | C1005JB0J106M050BC | |
| | 1608 | 0.80±0.10 | ±10% | C1608JB1A106K080AC | C1608JB0J106K080AB | |
| 15 µF | 1005 | 0.50±0.15/-0.10 | ±10% | C1005JB1A156K050BC | C1005JB0J156K050BC | |
| | | | ±20% | C1005JB1A156M050BC | C1005JB0J156M050BC | |
| | 1608 | 0.80±0.10 | ±10% | C1608JB1A156K080AC | C1608JB0J156K080AB | |

■ The red items are products of the production will be stopped. Please confirm the schedule on product details information.

MULTILAYER CERAMIC CHIP CAPACITORS



Capacitance Range Table

Class 2 (Temperature Stable)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | |
|-------------|------|------------------|-----------------------|------------------------|-------------------------|-----------------------|
| | | | | Rated Voltage Edc: 10V | Rated Voltage Edc: 6.3V | Rated Voltage Edc: 4V |
| 22 µF | 1608 | 0.80±0.20, -0.10 | ±20% | C1608JB1A226M080AC | C1608JB0J226M080AC | C1608JB0G226M080AA |
| | 2012 | 0.85±0.15 | ±20% | C2012JB1A226M085AC | C2012JB0J226M085AB | |
| | | 1.25±0.20 | ±20% | C2012JB1A226M125AB | C2012JB0J226M125AC | |
| | 3216 | 1.60±0.20 | ±20% | C3216JB1A226M160AC | | |
| 33 µF | 3225 | 2.50±0.30 | ±20% | C3225JB1A226M250AA | | |
| | 2012 | 1.25±0.20 | ±20% | C2012JB1A336M125AC | C2012JB0J336M125AC | |
| | | 1.30±0.20 | ±20% | | C3216JB0J336M130AC | |
| | 3216 | 1.60±0.20 | ±20% | C3216JB1A336M160AB | | |
| 47 µF | 2012 | 1.25±0.20 | ±20% | C2012JB1A476M125AC | C2012JB0J476M125AC | |
| | 3216 | 1.60±0.20 | ±20% | C3216JB1A476M160AB | C3216JB0J476M160AC | |
| 68 µF | 3216 | 1.60±0.30/-0.10 | ±20% | C3216JB1A686M160AC | C3216JB0J686M160AB | |
| | 3225 | 2.00±0.20 | ±20% | | C3225JB0J686M200AC | |
| 100 µF | 3216 | 1.60±0.30/-0.10 | ±20% | C3216JB1A107M160AC | C3216JB0J107M160AB | |
| | 3225 | 2.50±0.30 | ±20% | | C3225JB0J107M250AC | |

Class 2 (Temperature Stable)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | |
|-------------|------|----------------|-----------------------|------------------------|------------------------|------------------------|
| | | | | Rated Voltage Edc: 50V | Rated Voltage Edc: 25V | Rated Voltage Edc: 16V |
| 100 pF | 0402 | 0.20±0.02 | ±10% | | | C0402X5R1C101K020BC |
| | | | ±20% | | | C0402X5R1C101M020BC |
| | | | ±10% | | C0603X5R1E101K030BA | |
| 150 pF | 0603 | 0.30±0.03 | ±20% | | C0603X5R1E101M030BA | |
| | | | ±10% | | | C0402X5R1C151K020BC |
| | | | ±20% | | | C0402X5R1C151M020BC |
| 220 pF | 0402 | 0.20±0.02 | ±10% | | | C0402X5R1C221K020BC |
| | | | ±20% | | | C0402X5R1C221M020BC |
| | | | ±10% | | C0603X5R1E221K030BA | |
| 330 pF | 0603 | 0.30±0.03 | ±20% | | C0603X5R1E221M030BA | |
| | | | ±10% | C1005X5R1H221K050BA | | |
| | | | ±20% | C1005X5R1H221M050BA | | |
| 470 pF | 1005 | 0.50±0.05 | ±10% | | | C0402X5R1C331K020BC |
| | | | ±20% | | | C0402X5R1C331M020BC |
| | | | ±10% | | C0603X5R1E331K030BA | |
| 680 pF | 0603 | 0.30±0.03 | ±20% | | C0603X5R1E331M030BA | |
| | | | ±10% | C1005X5R1H331K050BA | | |
| | | | ±20% | C1005X5R1H331M050BA | | |
| 1 nF | 0402 | 0.20±0.02 | ±10% | | | C0402X5R1C471K020BC |
| | | | ±20% | | | C0402X5R1C471M020BC |
| | | | ±10% | | C0603X5R1E471K030BA | |
| 1.5 nF | 0603 | 0.30±0.03 | ±20% | | C0603X5R1E471M030BA | |
| | | | ±10% | C1005X5R1H471K050BA | | |
| | | | ±20% | C1005X5R1H471M050BA | | |
| 1.5 nF | 1005 | 0.50±0.05 | ±10% | | | C0402X5R1C681K020BC |
| | | | ±20% | | | C0402X5R1C681M020BC |
| | | | ±10% | | C0603X5R1E681K030BA | |
| 1.5 nF | 0603 | 0.30±0.03 | ±20% | | C0603X5R1E681M030BA | |
| | | | ±10% | C1005X5R1H681K050BA | | |
| | | | ±20% | C1005X5R1H681M050BA | | |
| 1.5 nF | 1005 | 0.50±0.05 | ±10% | | | |
| | | | ±20% | | C0603X5R1E102K030BA | |
| | | | ±10% | C1005X5R1H102K050BA | | |
| 1.5 nF | 0603 | 0.30±0.03 | ±20% | | C0603X5R1E102M030BA | |
| | | | ±10% | | C0603X5R1E152K030BA | |
| | | | ±20% | C1005X5R1H152K050BA | | |
| 1.5 nF | 1005 | 0.50±0.05 | ±10% | | C0603X5R1E152M030BA | |
| | | | ±20% | C1005X5R1H152M050BA | | |
| | | | ±10% | | | |

■ The gray items are non-recommended products in the new design.

■ The red items are products of the production will be stopped. Please confirm the schedule on product details information.

⚠ 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

Class 2 (Temperature Stable)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | | |
|-------------|-----------|----------------|-----------------------|------------------------|------------------------|------------------------|------------------------|
| | | | | Rated Voltage Edc: 50V | Rated Voltage Edc: 35V | Rated Voltage Edc: 25V | Rated Voltage Edc: 16V |
| 2.2 nF | 0603 | 0.30±0.03 | ±10% | | | C0603X5R1E222K030BA | |
| | | | ±20% | | | C0603X5R1E222M030BA | |
| | 1005 | 0.50±0.05 | ±10% | C1005X5R1H222K050BA | | | |
| | | | ±20% | C1005X5R1H222M050BA | | | |
| 3.3 nF | 0603 | 0.30±0.03 | ±10% | | | C0603X5R1E332K030BA | |
| | | | ±20% | | | C0603X5R1E332M030BA | |
| | 1005 | 0.50±0.05 | ±10% | C1005X5R1H332K050BA | | | |
| | | | ±20% | C1005X5R1H332M050BA | | | |
| 4.7 nF | 0603 | 0.30±0.03 | ±10% | | | | C0603X5R1C472K030BA |
| | | | ±20% | | | | C0603X5R1C472M030BA |
| | 1005 | 0.50±0.05 | ±10% | C1005X5R1H472K050BA | | | |
| | | | ±20% | C1005X5R1H472M050BA | | | |
| 6.8 nF | 1005 | 0.50±0.05 | ±10% | C1005X5R1H682K050BA | | | |
| | | | ±20% | C1005X5R1H682M050BA | | | |
| 10 nF | 0603 | 0.30±0.03 | ±10% | | | | C0603X5R1C103K030BA |
| | | | ±20% | | | | C0603X5R1C103M030BA |
| | 1005 | 0.50±0.05 | ±10% | C1005X5R1H103K050BB | | C1005X5R1E103K050BA | |
| | | | ±20% | C1005X5R1H103M050BB | | C1005X5R1E103M050BA | |
| | 1608 | 0.80±0.10 | ±10% | C1608X5R1H103K080AA | | | |
| | | | ±20% | C1608X5R1H103M080AA | | | |
| 15 nF | 1005 | 0.50±0.05 | ±10% | C1005X5R1H153K050BB | | C1005X5R1E153K050BA | C1005X5R1C153K050BA |
| | | | ±20% | C1005X5R1H153M050BB | | C1005X5R1E153M050BA | C1005X5R1C153M050BA |
| | 1608 | 0.80±0.10 | ±10% | C1608X5R1H153K080AA | | | |
| | | | ±20% | C1608X5R1H153M080AA | | | |
| 22 nF | 0603 | 0.30±0.03 | ±10% | | | C0603X5R1E223K030BB | |
| | | | ±20% | | | C0603X5R1E223M030BB | |
| | 1005 | 0.50±0.05 | ±10% | C1005X5R1H223K050BB | | C1005X5R1E223K050BA | C1005X5R1C223K050BA |
| | | | ±20% | C1005X5R1H223M050BB | | C1005X5R1E223M050BA | C1005X5R1C223M050BA |
| | 1608 | 0.80±0.10 | ±10% | C1608X5R1H223K080AA | | | |
| | | | ±20% | C1608X5R1H223M080AA | | | |
| 33 nF | 1005 | 0.50±0.05 | ±10% | C1005X5R1H333K050BB | | C1005X5R1E333K050BA | C1005X5R1C333K050BA |
| | | | ±20% | C1005X5R1H333M050BB | | C1005X5R1E333M050BA | C1005X5R1C333M050BA |
| | 1608 | 0.80±0.10 | ±10% | C1608X5R1H333K080AA | | | |
| | | | ±20% | C1608X5R1H333M080AA | | | |
| 47 nF | 0603 | 0.30±0.03 | ±10% | | | C0603X5R1E473K030BB | |
| | | | ±20% | | | C0603X5R1E473M030BB | |
| | 1005 | 0.50±0.05 | ±10% | C1005X5R1H473K050BB | | C1005X5R1E473K050BA | C1005X5R1C473K050BA |
| | | | ±20% | C1005X5R1H473M050BB | | C1005X5R1E473M050BA | C1005X5R1C473M050BA |
| | 1608 | 0.80±0.10 | ±10% | C1608X5R1H473K080AA | | | |
| | | | ±20% | C1608X5R1H473M080AA | | | |
| 68 nF | 1005 | 0.50±0.05 | ±10% | C1005X5R1H683K050BB | C1005X5R1V683K050BB | C1005X5R1E683K050BC | C1005X5R1C683K050BA |
| | | | ±20% | C1005X5R1H683M050BB | C1005X5R1V683M050BB | C1005X5R1E683M050BC | C1005X5R1C683M050BA |
| | 1608 | 0.80±0.10 | ±10% | C1608X5R1H683K080AA | | | |
| | | | ±20% | C1608X5R1H683M080AA | | | |
| 100 nF | 0603 | 0.30±0.03 | ±10% | | | C0603X5R1E104K030BB | C0603X5R1C104K030BC |
| | | | ±20% | | | C0603X5R1E104M030BB | C0603X5R1C104M030BC |
| | 1005 | 0.50±0.05 | ±10% | C1005X5R1H104K050BB | C1005X5R1V104K050BB | C1005X5R1E104K050BC | C1005X5R1C104K050BA |
| | | | ±20% | C1005X5R1H104M050BB | C1005X5R1V104M050BB | C1005X5R1E104M050BC | C1005X5R1C104M050BA |
| | 1608 | 0.80±0.10 | ±10% | C1608X5R1H104K080AA | | | |
| | | | ±20% | C1608X5R1H104M080AA | | | |
| 2012 | 0.85±0.15 | ±10% | C2012X5R1H104K085AA | | | | |
| | | ±20% | C2012X5R1H104M085AA | | | | |
| 150 nF | 0603 | 0.30±0.03 | ±10% | | | | C0603X5R1C154K030BC |
| | | | ±20% | | | | C0603X5R1C154M030BC |
| | 0603 | 0.30±0.05 | ±10% | | | C0603X5R1E154K030BC | |
| | | | ±20% | | | C0603X5R1E154M030BC | |
| | 1005 | 0.50±0.05 | ±10% | | | C1005X5R1E154K050BC | C1005X5R1C154K050BB |
| | | | ±20% | | | C1005X5R1E154M050BC | C1005X5R1C154M050BB |
| 1608 | 0.80±0.10 | ±10% | C1608X5R1H154K080AB | C1608X5R1V154K080AB | C1608X5R1E154K080AA | | |
| | | ±20% | C1608X5R1H154M080AB | C1608X5R1V154M080AB | C1608X5R1E154M080AA | | |
| 2012 | 0.85±0.15 | ±10% | C2012X5R1H154K085AA | | | | |
| | | ±20% | C2012X5R1H154M085AA | | | | |

■ The gray items are non-recommended products in the new design.

⚠ 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

Class 2 (Temperature Stable)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | | | |
|-------------|-----------|-----------------|-----------------------|------------------------|------------------------|------------------------|------------------------|---------------------|
| | | | | Rated Voltage Edc: 50V | Rated Voltage Edc: 35V | Rated Voltage Edc: 25V | Rated Voltage Edc: 16V | |
| 220 nF | 0603 | 0.30±0.03 | ±10% | | | | C0603X5R1C224K030BC | |
| | | | ±20% | | | | C0603X5R1C224M030BC | |
| | 1005 | 0.50±0.05 | ±10% | | | C0603X5R1E224K030BC | | |
| | | | ±20% | | | C0603X5R1E224M030BC | | |
| | 1608 | 0.80±0.10 | ±10% | C1608X5R1H224K080AB | C1608X5R1V224K080AB | | | |
| | | | ±20% | C1608X5R1H224M080AB | C1608X5R1V224M080AB | C1608X5R1E224M080AA | | |
| | 2012 | 1.25±0.20 | ±10% | C2012X5R1H224K125AA | | | | |
| | | | ±20% | C2012X5R1H224M125AA | | | | |
| | 330 nF | 1005 | 0.50±0.05 | ±10% | | C1005X5R1V334K050BC | C1005X5R1E334K050BB | C1005X5R1C334K050BC |
| | | | | ±20% | | C1005X5R1V334M050BC | C1005X5R1E334M050BB | C1005X5R1C334M050BC |
| 1608 | | 0.80±0.10 | ±10% | C1608X5R1H334K080AB | C1608X5R1V334K080AB | C1608X5R1E334K080AC | C1608X5R1C334K080AA | |
| | | | ±20% | C1608X5R1H334M080AB | C1608X5R1V334M080AB | C1608X5R1E334M080AC | C1608X5R1C334M080AA | |
| 2012 | | 1.25±0.20 | ±10% | C2012X5R1H334K125AA | | | | |
| | | | ±20% | C2012X5R1H334M125AA | | | | |
| 470 nF | 1005 | 0.50±0.05 | ±10% | | C1005X5R1V474K050BC | C1005X5R1E474K050BB | C1005X5R1C474K050BC | |
| | | | ±20% | | C1005X5R1V474M050BC | C1005X5R1E474M050BB | C1005X5R1C474M050BC | |
| | 1608 | 0.80±0.10 | ±10% | C1608X5R1H474K080AB | C1608X5R1V474K080AB | C1608X5R1E474K080AC | C1608X5R1C474K080AA | |
| | | | ±20% | C1608X5R1H474M080AB | C1608X5R1V474M080AB | C1608X5R1E474M080AC | C1608X5R1C474M080AA | |
| | 2012 | 1.25±0.20 | ±10% | C2012X5R1H474K125AB | | | | |
| | | | ±20% | C2012X5R1H474M125AB | | | | |
| 680 nF | 1005 | 0.50±0.05 | ±10% | | C1005X5R1V684K050BC | C1005X5R1E684K050BC | C1005X5R1C684K050BC | |
| | | | ±20% | | C1005X5R1V684M050BC | C1005X5R1E684M050BC | C1005X5R1C684M050BC | |
| | 1608 | 0.80±0.10 | ±10% | C1608X5R1H684K080AB | C1608X5R1V684K080AB | C1608X5R1E684K080AC | C1608X5R1C684K080AA | |
| | | | ±20% | C1608X5R1H684M080AB | C1608X5R1V684M080AB | C1608X5R1E684M080AC | C1608X5R1C684M080AA | |
| | 2012 | 1.25±0.20 | ±10% | C2012X5R1H684K125AB | | C2012X5R1E684K125AA | | |
| | | | ±20% | C2012X5R1H684M125AB | | C2012X5R1E684M125AA | | |
| 1 µF | 1005 | 0.50±0.05 | ±10% | | C1005X5R1V105K050BC | C1005X5R1E105K050BC | C1005X5R1C105K050BC | |
| | | | ±20% | | C1005X5R1V105M050BC | C1005X5R1E105M050BC | C1005X5R1C105M050BC | |
| | 1608 | 0.80±0.10 | ±10% | C1608X5R1H105K080AB | C1608X5R1V105K080AB | C1608X5R1E105K080AC | C1608X5R1C105K080AA | |
| | | | ±20% | C1608X5R1H105M080AB | C1608X5R1V105M080AB | C1608X5R1E105M080AC | C1608X5R1C105M080AA | |
| | 2012 | 0.85±0.15 | ±10% | C2012X5R1H105K085AB | C2012X5R1V105K085AB | C2012X5R1E105K085AC | C2012X5R1C105K085AA | |
| | | | ±20% | C2012X5R1H105M085AB | C2012X5R1V105M085AB | C2012X5R1E105M085AC | C2012X5R1C105M085AA | |
| | | 1.25±0.20 | ±10% | C2012X5R1H105K125AB | | C2012X5R1E105K125AA | | |
| | | | ±20% | C2012X5R1H105M125AB | | C2012X5R1E105M125AA | | |
| | 3216 | 1.60±0.20 | ±10% | C3216X5R1H105K160AA | | | | |
| | | | ±20% | C3216X5R1H105M160AA | | | | |
| 1.5 µF | 1005 | 0.50+0.15/-0.10 | ±10% | | C1005X5R1V155K050BC | | | |
| | | | ±20% | | C1005X5R1V155M050BC | | | |
| | 1608 | 0.80±0.10 | ±10% | | C1608X5R1V155K080AC | C1608X5R1E155K080AB | C1608X5R1C155K080AB | |
| | | | ±20% | | C1608X5R1V155M080AC | C1608X5R1E155M080AB | C1608X5R1C155M080AB | |
| | 2012 | 0.85±0.15 | ±10% | | | C2012X5R1E155K085AC | | |
| | | | ±20% | | | C2012X5R1E155M085AC | | |
| | 3216 | 1.60±0.20 | ±10% | C2012X5R1H155K125AB | C2012X5R1V155K125AB | C2012X5R1E155K125AA | C2012X5R1C155K125AA | |
| | | | ±20% | C2012X5R1H155M125AB | C2012X5R1V155M125AB | C2012X5R1E155M125AA | C2012X5R1C155M125AA | |
| | 2.2 µF | 1005 | 0.50+0.15/-0.10 | ±10% | | C1005X5R1V225K050BC | | |
| | | | | ±20% | | C1005X5R1V225M050BC | | |
| 1608 | | 0.80±0.10 | ±10% | | | C1005X5R1E225K050BC | | |
| | | | ±20% | | | C1005X5R1E225M050BC | | |
| 2012 | | 0.85±0.15 | ±10% | | | | C1005X5R1C225K050BC | |
| | | | ±20% | | | | C1005X5R1C225M050BC | |
| 3216 | | 1.60±0.20 | ±10% | | C1608X5R1V225K080AC | C1608X5R1E225K080AB | C1608X5R1C225K080AB | |
| | | | ±20% | | C1608X5R1V225M080AC | C1608X5R1E225M080AB | C1608X5R1C225M080AB | |
| | | 1.25±0.20 | ±10% | C2012X5R1H225K085AB | C2012X5R1V225K085AB | C2012X5R1E225K085AC | C2012X5R1C225K085AC | |
| | | | ±20% | C2012X5R1H225M125AB | C2012X5R1V225M125AB | C2012X5R1E225M125AC | C2012X5R1C225M125AA | |
| 3216 | 1.60±0.20 | ±10% | C3216X5R1H155K160AB | | | | | |
| | | ±20% | C3216X5R1H155M160AB | | | | | |

■ The red items are products of the production will be stopped. Please confirm the schedule on product details information.

⚠ 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

Class 2 (Temperature Stable)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | | | |
|-------------|------------------|------------------|-----------------------|------------------------|------------------------|------------------------|------------------------|---------------------|
| | | | | Rated Voltage Edc: 50V | Rated Voltage Edc: 35V | Rated Voltage Edc: 25V | Rated Voltage Edc: 16V | |
| 2.2 µF | 3216 | 1.60±0.20 | ±10% | C3216X5R1H225K160AB | | C3216X5R1E225K160AA | | |
| | | | ±20% | C3216X5R1H225M160AB | | C3216X5R1E225M160AA | | |
| | 3225 | 2.50±0.30 | ±10% | C3225X5R1H225K250AB | | | | |
| | | | ±20% | C3225X5R1H225M250AB | | | | |
| 1608 | 0.80±0.10 | | ±10% | | | C1608X5R1E335K080AC | C1608X5R1C335K080AC | |
| | | | ±20% | | | C1608X5R1E335M080AC | C1608X5R1C335M080AC | |
| | 0.80+0.20, -0.10 | | ±10% | | C1608X5R1V335K080AC | | | |
| | | | ±20% | | C1608X5R1V335M080AC | | | |
| 3.3 µF | 2012 | 0.60±0.15 | ±10% | | | | C2012X5R1C335K060AC | |
| | | | ±20% | | | | C2012X5R1C335M060AC | |
| | | 0.85±0.15 | ±10% | | | C2012X5R1E335K085AC | C2012X5R1C335K085AB | |
| | | | ±20% | | | C2012X5R1E335M085AC | C2012X5R1C335M085AB | |
| | 3216 | 1.25±0.20 | ±10% | C2012X5R1H335K125AB | C2012X5R1V335K125AC | C2012X5R1E335K125AB | C2012X5R1C335K125AC | |
| | | | ±20% | C2012X5R1H335M125AB | C2012X5R1V335M125AC | C2012X5R1E335M125AB | C2012X5R1C335M125AC | |
| | | 3216 | 1.60±0.20 | ±10% | C3216X5R1H335K160AB | C3216X5R1V335K160AB | C3216X5R1E335K160AA | |
| | | | | ±20% | C3216X5R1H335M160AB | C3216X5R1V335M160AB | C3216X5R1E335M160AA | |
| 4.7 µF | 1608 | 0.80±0.10 | ±10% | | | C1608X5R1E475K080AC | C1608X5R1C475K080AC | |
| | | | ±20% | | | C1608X5R1E475M080AC | C1608X5R1C475M080AC | |
| | | 0.80+0.20, -0.10 | | ±10% | | C1608X5R1V475K080AC | | |
| | | | | ±20% | | C1608X5R1V475M080AC | | |
| | 2012 | 0.60±0.15 | | ±10% | | | | C2012X5R1C475K060AC |
| | | | | ±20% | | | | C2012X5R1C475M060AC |
| | | 0.85±0.15 | ±10% | | | C2012X5R1E475K085AC | C2012X5R1C475K085AB | |
| | | | ±20% | | | C2012X5R1E475M085AC | C2012X5R1C475M085AB | |
| | 3216 | 1.25±0.20 | ±10% | C2012X5R1H475K125AB | C2012X5R1V475K125AC | C2012X5R1E475K125AB | C2012X5R1C475K125AC | |
| | | | ±20% | C2012X5R1H475M125AB | C2012X5R1V475M125AC | C2012X5R1E475M125AB | C2012X5R1C475M125AC | |
| | | 3216 | 1.60±0.20 | ±10% | C3216X5R1H475K085AB | C3216X5R1V475K085AB | C3216X5R1E475K085AB | |
| | | | | ±20% | C3216X5R1H475M085AB | C3216X5R1V475M085AB | C3216X5R1E475M085AB | |
| 6.8 µF | 1608 | 0.80±0.20, -0.10 | ±10% | | | C1608X5R1E685K080AC | C1608X5R1C685K080AB | |
| | | | ±20% | | | C1608X5R1E685M080AC | C1608X5R1C685M080AB | |
| | | 2012 | 0.85±0.15 | ±10% | | | | C2012X5R1C685K085AC |
| | | | | ±20% | | | | C2012X5R1C685M085AC |
| | 3216 | 1.25±0.20 | ±10% | | C2012X5R1V685K125AC | C2012X5R1E685K125AC | C2012X5R1C685K125AC | |
| | | | ±20% | | C2012X5R1V685M125AC | C2012X5R1E685M125AC | C2012X5R1C685M125AC | |
| | | 3216 | 1.60±0.20 | ±10% | C3216X5R1H685K160AB | C3216X5R1V685K160AB | C3216X5R1E685K160AA | C3216X5R1C685K160AA |
| | | | | ±20% | C3216X5R1H685M160AB | C3216X5R1V685M160AB | C3216X5R1E685M160AA | C3216X5R1C685M160AA |
| | 3225 | 2.00±0.20 | ±10% | | | | C3225X5R1C685K200AA | |
| | | | ±20% | | | | C3225X5R1C685M200AA | |
| | | 3225 | 2.50±0.30 | ±10% | C3225X5R1H685K250AB | | C3225X5R1E685K250AA | |
| | | | | ±20% | C3225X5R1H685M250AB | | C3225X5R1E685M250AA | |
| 4532 | 2.50±0.30 | ±10% | C4532X5R1H685K250KA | | | | | |
| | | ±20% | C4532X5R1H685M250KA | | | | | |
| 10 µF | 1608 | 0.80+0.20, -0.10 | ±20% | | | C1608X5R1E106M080AC | C1608X5R1C106M080AB | |
| | | | | | | | | |
| | | 2012 | 0.85±0.15 | ±10% | | C2012X5R1V106K085AC | C2012X5R1E106K085AC | C2012X5R1C106K085AC |
| | | | | ±20% | | C2012X5R1V106M085AC | C2012X5R1E106M085AC | C2012X5R1C106M085AC |
| | 3216 | 1.25±0.20 | ±10% | | C2012X5R1V106K125AC | C2012X5R1E106K125AB | C2012X5R1C106K125AC | |
| | | | ±20% | | C2012X5R1V106M125AC | C2012X5R1E106M125AB | C2012X5R1C106M125AC | |
| | | 3216 | 0.85±0.15 | ±10% | | | C3216X5R1E106K085AC | C3216X5R1C106K085AC |
| | | | | ±20% | | | C3216X5R1E106M085AC | C3216X5R1C106M085AC |
| 3216 | 1.60±0.20 | ±10% | C3216X5R1H106K160AB | C3216X5R1V106K160AB | C3216X5R1E106K160AB | C3216X5R1C106K160AA | | |
| | | ±20% | C3216X5R1H106M160AB | C3216X5R1V106M160AB | C3216X5R1E106M160AB | C3216X5R1C106M160AA | | |

■ The red items are products of the production will be stopped. Please confirm the schedule on product details information.

⚠ 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

Class 2 (Temperature Stable)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | | |
|-------------|-----------|----------------|-----------------------|------------------------|------------------------|------------------------|------------------------|
| | | | | Rated Voltage Edc: 50V | Rated Voltage Edc: 35V | Rated Voltage Edc: 25V | Rated Voltage Edc: 16V |
| 10 µF | 3225 | 2.00±0.20 | ±10% | | | | C3225X5R1C106K200AA |
| | | | ±20% | | | | C3225X5R1C106M200AA |
| | 2.50±0.30 | ±10% | C3225X5R1H106K250AB | | C3225X5R1E106K250AA | | |
| | | ±20% | C3225X5R1H106M250AB | | C3225X5R1E106M250AA | | |
| | 4532 | 2.50±0.30 | ±10% | | | C4532X5R1E106K250KA | |
| | | | ±20% | | | C4532X5R1E106M250KA | |
| 5750 | 2.30±0.20 | ±10% | C5750X5R1H106K230KA | | | | |
| | | ±20% | C5750X5R1H106M230KA | | | | |
| 15 µF | 2012 | 1.25±0.20 | ±20% | | C2012X5R1V156M125AC | C2012X5R1E156M125AC | C2012X5R1C156M125AC |
| | 3216 | 1.60±0.20 | ±20% | | C3216X5R1V156M160AC | C3216X5R1E156M160AB | C3216X5R1C156M160AB |
| | 3225 | 2.50±0.30 | ±20% | | | | C3225X5R1C156M250AA |
| | 4532 | 2.50±0.30 | ±20% | | | C4532X5R1E156M250KA | |
| | | | ±20% | | | C4532X5R1E156M280KA | |
| | 2012 | 1.25±0.20 | ±10% | | | | C2012X5R1C226M085AC |
| ±20% | | | | | | C2012X5R1C226K125AC | |
| 22 µF | 3216 | 1.60±0.20 | ±20% | | C2012X5R1V226M125AC | C2012X5R1E226M125AC | C2012X5R1C226M125AC |
| | 3225 | 2.50±0.30 | ±10% | | C3216X5R1V226M160AC | C3216X5R1E226M160AB | C3216X5R1C226M160AB |
| | | | ±20% | | | | C3225X5R1C226K250AA |
| | 4532 | 2.50±0.30 | ±20% | | | C4532X5R1E226M250KA | |
| | | | ±20% | | | C4532X5R1E226M200KA | |
| | 5750 | 2.30±0.20 | ±20% | | | C5750X5R1E226M230KA | |
| ±20% | | | | | C5750X5R1E226M250KA | | |
| 33 µF | 3216 | 1.60±0.20 | ±20% | | | C3216X5R1E336M160AC | C3216X5R1C336M160AB |
| | 4532 | 2.50±0.30 | ±20% | | | | C4532X5R1C336M250KA |
| | 5750 | 2.00±0.20 | ±20% | | | | C5750X5R1C336M200KA |
| 47 µF | 3216 | 1.60±0.20 | ±20% | | | C3216X5R1E476M160AC | C3216X5R1C476M160AB |
| | 5750 | 2.30±0.20 | ±20% | | | | C5750X5R1C476M230KA |

Class 2 (Temperature Stable)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | |
|-------------|------|----------------|-----------------------|------------------------|-------------------------|-----------------------|
| | | | | Rated Voltage Edc: 10V | Rated Voltage Edc: 6.3V | Rated Voltage Edc: 4V |
| 1 nF | 0402 | 0.20±0.02 | ±10% | C0402X5R1A102K020BC | C0402X5R0J102K020BC | C0402X5R0G102K020BC |
| | | | ±20% | C0402X5R1A102M020BC | C0402X5R0J102M020BC | C0402X5R0G102M020BC |
| 1.5 nF | 0402 | 0.20±0.02 | ±10% | C0402X5R1A152K020BC | C0402X5R0J152K020BC | C0402X5R0G152K020BC |
| | | | ±20% | C0402X5R1A152M020BC | C0402X5R0J152M020BC | C0402X5R0G152M020BC |
| 2.2 nF | 0402 | 0.20±0.02 | ±10% | C0402X5R1A222K020BC | C0402X5R0J222K020BC | C0402X5R0G222K020BC |
| | | | ±20% | C0402X5R1A222M020BC | C0402X5R0J222M020BC | C0402X5R0G222M020BC |
| 3.3 nF | 0402 | 0.20±0.02 | ±10% | C0402X5R1A332K020BC | C0402X5R0J332K020BC | C0402X5R0G332K020BC |
| | | | ±20% | C0402X5R1A332M020BC | C0402X5R0J332M020BC | C0402X5R0G332M020BC |
| 4.7 nF | 0402 | 0.20±0.02 | ±10% | C0402X5R1A472K020BC | C0402X5R0J472K020BC | C0402X5R0G472K020BC |
| | | | ±20% | C0402X5R1A472M020BC | C0402X5R0J472M020BC | C0402X5R0G472M020BC |
| 6.8 nF | 0402 | 0.20±0.02 | ±10% | C0402X5R1A682K020BC | C0402X5R0J682K020BC | C0402X5R0G682K020BC |
| | | | ±20% | C0402X5R1A682M020BC | C0402X5R0J682M020BC | C0402X5R0G682M020BC |
| 10 nF | 0603 | 0.30±0.03 | ±10% | C0603X5R1A682K030BA | | |
| | | | ±20% | C0603X5R1A682M030BA | | |
| 15 nF | 0402 | 0.20±0.02 | ±10% | C0402X5R1A103K020BC | C0402X5R0J103K020BC | C0402X5R0G103K020BC |
| | | | ±20% | C0402X5R1A103M020BC | C0402X5R0J103M020BC | C0402X5R0G103M020BC |
| 22 nF | 0603 | 0.30±0.03 | ±10% | C0603X5R1A103K030BA | | |
| | | | ±20% | C0603X5R1A103M030BA | | |
| 33 nF | 0603 | 0.30±0.03 | ±10% | C0603X5R1A153K030BC | C0603X5R0J153K030BA | |
| | | | ±20% | C0603X5R1A153M030BC | C0603X5R0J153M030BA | |
| 33 nF | 0402 | 0.20±0.02 | ±20% | | C0402X5R0J223M020BC | C0402X5R0G223M020BC |
| | | | ±10% | C0603X5R1A223K030BC | C0603X5R0J223K030BC | |
| 33 nF | 0603 | 0.30±0.03 | ±20% | C0603X5R1A223M030BC | C0603X5R0J223M030BC | |
| | | | ±10% | C0603X5R1A333K030BC | C0603X5R0J333K030BC | |
| 33 nF | 0603 | 0.30±0.03 | ±20% | C0603X5R1A333M030BC | C0603X5R0J333M030BC | |

- The gray items are non-recommended products in the new design.
- The red items are products of the production will be stopped. Please confirm the schedule on product details information.

⚠ 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

Class 2 (Temperature Stable)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | |
|-------------|-----------------|-----------------|-----------------------|------------------------|--------------------------|------------------------|
| | | | | Rated Voltage Edc: 10V | Rated Voltage Edc : 6.3V | Rated Voltage Edc : 4V |
| 47 nF | 0402 | 0.20±0.02 | ±20% | | C0402X5R0J473M020BC | C0402X5R0G473M020BC |
| | 0603 | 0.30±0.03 | ±10% | C0603X5R1A473K030BC | C0603X5R0J473K030BC | |
| | | | ±20% | C0603X5R1A473M030BC | C0603X5R0J473M030BC | |
| 1005 | 0.50±0.05 | ±10% | C1005X5R1A473K050BA | | | |
| | | ±20% | C1005X5R1A473M050BA | | | |
| 68 nF | 0603 | 0.30±0.03 | ±10% | C0603X5R1A683K030BC | C0603X5R0J683K030BC | |
| | | | ±20% | C0603X5R1A683M030BC | C0603X5R0J683M030BC | |
| | 1005 | 0.50±0.05 | ±10% | C1005X5R1A683K050BA | | |
| ±20% | | | C1005X5R1A683M050BA | | | |
| 100 nF | 0402 | 0.20±0.02 | ±20% | | C0402X5R0J104M020BC | C0402X5R0G104M020BC |
| | 0603 | 0.30±0.03 | ±10% | C0603X5R1A104K030BC | C0603X5R0J104K030BC | |
| | | | ±20% | C0603X5R1A104M030BC | C0603X5R0J104M030BC | |
| 1005 | 0.50±0.05 | ±10% | C1005X5R1A104K050BA | C1005X5R0J104K050BA | | |
| | | ±20% | C1005X5R1A104M050BA | | | |
| 150 nF | 0603 | 0.30±0.03 | ±10% | C0603X5R1A154K030BB | C0603X5R0J154K030BB | |
| | | | ±20% | C0603X5R1A154M030BB | C0603X5R0J154M030BB | |
| | 1005 | 0.50±0.05 | ±10% | C1005X5R1A154K050BB | C1005X5R0J154K050BB | |
| ±20% | | | C1005X5R1A154M050BB | C1005X5R0J154M050BB | | |
| 220 nF | 0402 | 0.20±0.03 | ±20% | | | C0402X5R0G224M020BC |
| | 0603 | 0.30±0.03 | ±10% | C0603X5R1A224K030BB | C0603X5R0J224K030BB | |
| | | | ±20% | C0603X5R1A224M030BB | C0603X5R0J224M030BB | |
| 1005 | 0.50±0.05 | ±10% | C1005X5R1A224K050BB | C1005X5R0J224K050BB | | |
| | | ±20% | C1005X5R1A224M050BB | C1005X5R0J224M050BB | | |
| 330 nF | 0603 | 0.30±0.03 | ±20% | | | C0603X5R0J334M030BC |
| | | 0.30±0.05 | ±10% | C0603X5R1A334K030BC | | |
| | ±20% | | C0603X5R1A334M030BC | | | |
| 470 nF | 1005 | 0.50±0.05 | ±10% | C1005X5R1A334K050BB | C1005X5R0J334K050BB | |
| | | | ±20% | C1005X5R1A334M050BB | C1005X5R0J334M050BB | |
| | 0603 | 0.30±0.03 | ±10% | | C0603X5R0J474K030BC | |
| ±20% | | | | C0603X5R0J474M030BC | | |
| 680 nF | 1005 | 0.50±0.05 | ±10% | C1005X5R1A474K050BB | C1005X5R0J474K050BB | |
| | | | ±20% | C1005X5R1A474M050BB | C1005X5R0J474M050BB | |
| | 1608 | 0.80+0.15/-0.10 | ±10% | C1608X5R1A474K080AA | | |
| ±20% | | | C1608X5R1A474M080AA | | | |
| 1 μF | 1005 | 0.50±0.05 | ±10% | C1005X5R1A684K050BB | C1005X5R0J684K050BB | |
| | | | ±20% | C1005X5R1A684M050BB | C1005X5R0J684M050BB | |
| | 1608 | 0.80+0.15/-0.10 | ±10% | C1608X5R1A684K080AC | | |
| ±20% | | | C1608X5R1A684M080AC | | | |
| 1.5 μF | 0603 | 0.30±0.05 | ±20% | | C0603X5R0J105M030BC | C0603X5R0G105M030BC |
| | | | ±10% | C1005X5R1A105K050BB | C1005X5R0J105K050BB | |
| | 1005 | 0.50±0.05 | ±20% | C1005X5R1A105M050BB | C1005X5R0J105M050BB | |
| ±10% | | | C1608X5R1A105K080AC | | | |
| 2.2 μF | 1005 | 0.50±0.05 | ±10% | C1005X5R1A155K050BC | C1005X5R0J155K050BB | |
| | | | ±20% | C1005X5R1A155M050BC | C1005X5R0J155M050BB | |
| | 1608 | 0.80±0.10 | ±10% | C1608X5R1A155K080AB | C1608X5R0J155K080AB | |
| ±20% | | | C1608X5R1A155M080AB | C1608X5R0J155M080AB | | |
| 3.3 μF | 0603 | 0.30±0.10 | ±20% | | C0603X5R0J225M030BC | C0603X5R0G225M030BC |
| | | | ±10% | C1005X5R1A225K050BC | C1005X5R0J225K050BB | |
| | 1005 | 0.50±0.05 | ±20% | C1005X5R1A225M050BC | C1005X5R0J225M050BB | |
| ±10% | | | C1608X5R1A225K080AC | C1608X5R0J225K080AB | | |
| 4.7 μF | 1608 | 0.80±0.10 | ±20% | C1608X5R1A225M080AC | C1608X5R0J225M080AB | |
| | | | ±10% | C2012X5R1A225K085AA | C2012X5R0J225K085AA | |
| | 2012 | 0.85±0.15 | ±20% | C2012X5R1A225M085AA | C2012X5R0J225M085AA | |
| ±10% | | | C1005X5R1A335K050BC | C1005X5R0J335K050BB | C1005X5R0G335K050BB | |
| 3.3 μF | 1005 | 0.50±0.10 | ±20% | C1005X5R1A335M050BC | C1005X5R0J335M050BB | C1005X5R0G335M050BB |
| | | | ±10% | C1608X5R1A335K080AC | C1608X5R0J335K080AB | |
| | 1608 | 0.80±0.10 | ±20% | C1608X5R1A335M080AC | C1608X5R0J335M080AB | |
| ±10% | | | C2012X5R1A335K125AA | | | |
| 4.7 μF | 2012 | 1.25±0.20 | ±20% | C2012X5R1A335M125AA | | |
| | | | ±10% | C1005X5R1A475K050BC | C1005X5R0J475K050BB | C1005X5R0G475K050BB |
| 1005 | 0.50+0.15/-0.10 | ±20% | C1005X5R1A475M050BC | C1005X5R0J475M050BB | C1005X5R0G475M050BB | |

- The gray items are non-recommended products in the new design.
- The red items are products of the production will be stopped. Please confirm the schedule on product details information.

⚠ 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

Class 2 (Temperature Stable)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | |
|-------------|------------------|------------------|-----------------------|------------------------|--------------------------|------------------------|
| | | | | Rated Voltage Edc: 10V | Rated Voltage Edc : 6.3V | Rated Voltage Edc : 4V |
| 4.7 μF | 1608 | 0.80±0.10 | ±10% | C1608X5R1A475K080AC | C1608X5R0J475K080AB | |
| | | | ±20% | C1608X5R1A475M080AC | C1608X5R0J475M080AB | |
| | | | ±10% | C2012X5R1A475K060AB | | |
| | 2012 | 0.60±0.15 | ±20% | C2012X5R1A475M060AB | | |
| | | | ±10% | C2012X5R1A475K085AC | C2012X5R0J475K085AB | |
| | | | ±20% | C2012X5R1A475M085AC | C2012X5R0J475M085AB | |
| | 1.25±0.20 | ±10% | C2012X5R1A475K125AA | C2012X5R0J475K125AA | | |
| | | ±20% | C2012X5R1A475M125AA | C2012X5R0J475M125AA | | |
| | | ±10% | C1608X5R1A685K080AC | C1608X5R0J685K080AB | | |
| 6.8 μF | 1608 | 0.80±0.10 | ±20% | C1608X5R1A685M080AC | C1608X5R0J685M080AB | |
| | | | ±10% | C2012X5R1A685K060AC | | |
| | | | ±20% | C2012X5R1A685M060AC | | |
| | 2012 | 0.85±0.15 | ±10% | C2012X5R1A685K085AB | C2012X5R0J685K085AB | |
| | | | ±20% | C2012X5R1A685M085AB | C2012X5R0J685M085AB | |
| | | | ±10% | C2012X5R1A685K125AB | C2012X5R0J685K125AB | |
| | 1.25±0.20 | ±20% | C2012X5R1A685M125AB | C2012X5R0J685M125AB | | |
| | | ±10% | C1005X5R0J106M050BC | C1005X5R0G106M050BB | | |
| | | ±20% | C1608X5R1A106K080AC | C1608X5R0J106K080AB | | |
| 10 μF | 1608 | 0.80±0.10 | ±20% | C1608X5R1A106M080AC | C1608X5R0J106M080AB | |
| | | | ±10% | C2012X5R1A106K085AB | C2012X5R0J106K085AB | |
| | | | ±20% | C2012X5R1A106M085AB | C2012X5R0J106M085AB | |
| | 2012 | 0.85±0.15 | ±10% | C2012X5R1A106K125AB | C2012X5R0J106K125AB | |
| | | | ±20% | C2012X5R1A106M125AB | C2012X5R0J106M125AB | |
| | | | ±10% | C3216X5R1A106K160AB | | |
| | 1.60±0.20 | ±20% | C3216X5R1A106M160AB | | | |
| | | ±20% | C1608X5R1A156M080AC | C1608X5R0J156M080AC | C1608X5R0G156M080AA | |
| | | ±20% | C2012X5R1A156M085AC | C2012X5R0J156M085AB | | |
| 15 μF | 2012 | 1.25±0.20 | ±20% | C2012X5R1A156M125AB | C2012X5R0J156M125AC | |
| | | | ±20% | C3216X5R1A156M160AB | | |
| | | | ±20% | C3225X5R1A156M230AA | | |
| | 1608 | 0.80+0.20, -0.10 | ±20% | C1608X5R1A226M080AC | C1608X5R0J226M080AC | C1608X5R0G226M080AA |
| | | | ±20% | C2012X5R1A226M085AC | C2012X5R0J226M085AB | |
| | | | ±10% | C2012X5R1A226K125AB | C2012X5R0J226K125AB | |
| 2012 | 1.25±0.20 | ±20% | C2012X5R1A226M125AB | C2012X5R0J226M125AC | | |
| | | ±20% | C3216X5R1A226M160AC | C3216X5R0J226M160AA | | |
| | | ±10% | C3225X5R0J226K200AA | C3225X5R0J226K200AA | | |
| 22 μF | 3216 | 1.60±0.20 | ±20% | C3225X5R0J226M200AA | C3225X5R0J226M200AA | |
| | | | ±20% | C3225X5R1A226M230AA | | |
| | | | ±20% | C4532X5R1A226M230KA | | |
| | 2012 | 1.25±0.20 | ±20% | C2012X5R1A336M125AC | C2012X5R0J336M125AC | C2012X5R0G476M125AB |
| | | | ±20% | C3216X5R1A336M160AB | C3216X5R0J336M160AB | |
| | | | ±20% | C3225X5R1A336M200AC | C3225X5R0J336M200AA | |
| 3216 | 1.60±0.20 | ±20% | C3225X5R0J336M250AA | C3225X5R0J336M250AA | | |
| | | ±20% | C4532X5R1A336M230KA | | | |
| | | ±20% | C2012X5R1A476M125AC | C2012X5R0J476M125AC | C2012X5R0G476M125AB | |
| 33 μF | 3216 | 1.60±0.20 | ±20% | C3216X5R1A476M160AB | C3216X5R0J476M160AC | |
| | | | ±20% | C3225X5R1A476M250AC | C3225X5R0J476M250AA | |
| | | | ±20% | C4532X5R0J476M250KA | | |
| | 2012 | 1.25±0.20 | ±20% | C4532X5R1A476M280KA | | |
| | | | ±20% | C3216X5R1A686M160AC | C3216X5R0J686M160AB | |
| | | | ±20% | C3225X5R0J686M200AC | C3225X5R0J686M200AC | |
| 3216 | 1.60+0.30, -0.10 | ±20% | C4532X5R0J686M280KA | | | |
| | | ±20% | C5750X5R1A686M230KA | | | |
| | | ±20% | C3216X5R1A107M160AC | C3216X5R0J107M160AB | C3216X5R0G107M160AB | |
| 47 μF | 3216 | 1.60±0.20 | ±20% | C3225X5R0J107M250AC | C3225X5R0J107M250AC | |
| | | | ±20% | C4532X5R1A107M280KA | C4532X5R0J107M280KA | |
| | | | ±20% | C5750X5R1A107M280KA | C5750X5R0J107M280KA | |
| | 2012 | 1.25±0.20 | ±20% | C3216X5R1A686M160AC | C3216X5R0J686M160AB | |
| | | | ±20% | C3225X5R0J686M200AC | C3225X5R0J686M200AC | |
| | | | ±20% | C4532X5R0J686M280KA | | |
| 3216 | 1.60+0.30, -0.10 | ±20% | C5750X5R1A686M230KA | | | |
| | | ±20% | C3216X5R1A107M160AC | C3216X5R0J107M160AB | C3216X5R0G107M160AB | |
| | | ±20% | C3225X5R0J107M250AC | C3225X5R0J107M250AC | | |
| 68 μF | 2012 | 1.25±0.20 | ±20% | C4532X5R1A107M280KA | C4532X5R0J107M280KA | |
| | | | ±20% | C5750X5R1A107M280KA | C5750X5R0J107M280KA | |
| | | | ±20% | C3216X5R1A107M280KA | C3216X5R0J107M280KA | |
| | 3216 | 1.60±0.20 | ±20% | C3216X5R1A107M280KA | C3216X5R0J107M280KA | |
| | | | ±20% | C5750X5R1A107M280KA | C5750X5R0J107M280KA | |
| | | | ±20% | C3216X5R1A107M280KA | C3216X5R0J107M280KA | |
| 2012 | 1.25±0.20 | ±20% | C3216X5R1A107M280KA | C3216X5R0J107M280KA | | |
| | | ±20% | C5750X5R1A107M280KA | C5750X5R0J107M280KA | | |
| | | ±20% | C3216X5R1A107M280KA | C3216X5R0J107M280KA | | |

■ The red items are products of the production will be stopped. Please confirm the schedule on product details information.

⚠ 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

Class 2 (Temperature Stable)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | | |
|-------------|------|-----------------|-----------------------|------------------------|------------------------|------------------------|------------------------|
| | | | | Rated Voltage Edc: 50V | Rated Voltage Edc: 35V | Rated Voltage Edc: 25V | Rated Voltage Edc: 16V |
| 2.2 nF | 0603 | 0.30±0.03 | ±10% | | | C0603X6S1E222K030BA | C0603X6S1C222K030BA |
| | | | ±20% | | | C0603X6S1E222M030BA | C0603X6S1C222M030BA |
| 4.7 nF | 0603 | 0.30±0.03 | ±10% | | | | C0603X6S1C472K030BA |
| | | | ±20% | | | | C0603X6S1C472M030BA |
| 10 nF | 1005 | 0.50±0.05 | ±10% | C1005X6S1H103K050BB | | | |
| | | | ±20% | C1005X6S1H103M050BB | | | |
| 15 nF | 1005 | 0.50±0.05 | ±10% | C1005X6S1H153K050BB | | | |
| | | | ±20% | C1005X6S1H153M050BB | | | |
| 22 nF | 0603 | 0.30±0.03 | ±10% | | | | C0603X6S1C223K030BC |
| | | | ±20% | | | | C0603X6S1C223M030BC |
| | 1005 | 0.50±0.05 | ±10% | C1005X6S1H223K050BB | | | |
| | | | ±20% | C1005X6S1H223M050BB | | | |
| 33 nF | 1005 | 0.50±0.05 | ±10% | C1005X6S1H333K050BB | | | |
| | | | ±20% | C1005X6S1H333M050BB | | | |
| 47 nF | 0603 | 0.30±0.03 | ±10% | | | | C0603X6S1C473K030BC |
| | | | ±20% | | | | C0603X6S1C473M030BC |
| | 1005 | 0.50±0.05 | ±10% | C1005X6S1H473K050BB | | | |
| | | | ±20% | C1005X6S1H473M050BB | | | |
| 68 nF | 1005 | 0.50±0.05 | ±10% | C1005X6S1H683K050BB | C1005X6S1V683K050BB | C1005X6S1E683K050BC | |
| | | | ±20% | C1005X6S1H683M050BB | C1005X6S1V683M050BB | C1005X6S1E683M050BC | |
| 100 nF | 0603 | 0.30±0.03 | ±10% | | | | C0603X6S1C104K030BC |
| | | | ±20% | | | | C0603X6S1C104M030BC |
| | 1005 | 0.50±0.05 | ±10% | C1005X6S1H104K050BB | C1005X6S1V104K050BB | C1005X6S1E104K050BC | |
| | | | ±20% | C1005X6S1H104M050BB | C1005X6S1V104M050BB | C1005X6S1E104M050BC | |
| 150 nF | 1005 | 0.50±0.05 | ±10% | | | C1005X6S1E154K050BC | C1005X6S1C154K050BB |
| | | | ±20% | | | C1005X6S1E154M050BC | C1005X6S1C154M050BB |
| | 1608 | 0.80±0.10 | ±10% | C1608X6S1H154K080AB | C1608X6S1V154K080AB | | |
| | | | ±20% | C1608X6S1H154M080AB | C1608X6S1V154M080AB | | |
| 220 nF | 1005 | 0.50±0.05 | ±10% | | | C1005X6S1E224K050BC | C1005X6S1C224K050BB |
| | | | ±20% | | | C1005X6S1E224M050BC | C1005X6S1C224M050BB |
| | 1608 | 0.80±0.10 | ±10% | C1608X6S1H224K080AB | C1608X6S1V224K080AB | | |
| | | | ±20% | C1608X6S1H224M080AB | C1608X6S1V224M080AB | | |
| 330 nF | 1005 | 0.50±0.05 | ±10% | | | | C1005X6S1C334K050BC |
| | | | ±20% | | | | C1005X6S1C334M050BC |
| | 1608 | 0.80±0.10 | ±10% | C1608X6S1H334K080AB | C1608X6S1V334K080AB | C1608X6S1E334K080AB | |
| | | | ±20% | C1608X6S1H334M080AB | C1608X6S1V334M080AB | C1608X6S1E334M080AB | |
| 470 nF | 1005 | 0.50±0.05 | ±10% | | | | C1005X6S1C474K050BC |
| | | | ±20% | | | | C1005X6S1C474M050BC |
| | 1608 | 0.80±0.10 | ±10% | C1608X6S1H474K080AB | C1608X6S1V474K080AB | C1608X6S1E474K080AB | |
| | | | ±20% | C1608X6S1H474M080AB | C1608X6S1V474M080AB | C1608X6S1E474M080AB | |
| | 2012 | 1.25±0.20 | ±10% | C2012X6S1H474K125AB | | | |
| | | | ±20% | C2012X6S1H474M125AB | | | |
| 680 nF | 1005 | 0.50±0.05 | ±10% | | | | C1005X6S1C684K050BC |
| | | | ±20% | | | | C1005X6S1C684M050BC |
| | 1608 | 0.80±0.10 | ±10% | C1608X6S1H684K080AC | C1608X6S1V684K080AB | C1608X6S1E684K080AB | C1608X6S1C684K080AC |
| | | | ±20% | C1608X6S1H684M080AC | C1608X6S1V684M080AB | C1608X6S1E684M080AB | C1608X6S1C684M080AC |
| | 2012 | 1.25±0.20 | ±10% | C2012X6S1H684K125AB | | | |
| | | | ±20% | C2012X6S1H684M125AB | | | |
| 1 μF | 1005 | 0.50±0.05 | ±10% | | | | C1005X6S1C105K050BC |
| | | | ±20% | | | | C1005X6S1C105M050BC |
| | 1608 | 0.80±0.10 | ±10% | C1608X6S1H105K080AC | C1608X6S1V105K080AB | C1608X6S1E105K080AB | C1608X6S1C105K080AC |
| | | | ±20% | C1608X6S1H105M080AC | C1608X6S1V105M080AB | C1608X6S1E105M080AB | C1608X6S1C105M080AC |
| | 2012 | 0.85±0.15 | ±10% | C2012X6S1H105K085AB | C2012X6S1V105K085AB | C2012X6S1E105K085AB | |
| | | | ±20% | C2012X6S1H105M085AB | C2012X6S1V105M085AB | C2012X6S1E105M085AB | |
| | 2012 | 1.25±0.20 | ±10% | C2012X6S1H105K125AB | | | |
| | | | ±20% | C2012X6S1H105M125AB | | | |
| 1.5 μF | 1005 | 0.50+0.15/-0.10 | ±10% | | | | C1005X6S1C155K050BC |
| | | | ±20% | | | | C1005X6S1C155M050BC |
| | 1608 | 0.80±0.10 | ±10% | | | | C1608X6S1C155K080AC |
| | | | ±20% | | | | C1608X6S1C155M080AC |
| | 2012 | 1.25±0.20 | ±10% | C2012X6S1H155K125AB | C2012X6S1V155K125AB | C2012X6S1E155K125AB | |
| | | | ±20% | C2012X6S1H155M125AB | C2012X6S1V155M125AB | C2012X6S1E155M125AB | |
| | 3216 | 1.60±0.20 | ±10% | C3216X6S1H155K160AB | C3216X6S1V155K160AB | | |
| | | | ±20% | C3216X6S1H155M160AB | C3216X6S1V155M160AB | | |

■ The gray items are non-recommended products in the new design.

⚠ 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

Class 2 (Temperature Stable)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | | |
|-------------|-----------|------------------|-----------------------|------------------------|------------------------|------------------------|------------------------|
| | | | | Rated Voltage Edc: 50V | Rated Voltage Edc: 35V | Rated Voltage Edc: 25V | Rated Voltage Edc: 16V |
| 2.2 µF | 1005 | 0.50+0.15, -0.10 | ±10% | | | | C1005X6S1C225K050BC |
| | | | ±20% | | | | C1005X6S1C225M050BC |
| | 1608 | 0.80±0.10 | ±10% | | | | C1608X6S1C225K080AC |
| | | | ±20% | | | | C1608X6S1C225M080AC |
| | 2012 | 0.85±0.15 | ±10% | C2012X6S1H225K085AC | C2012X6S1V225K085AB | C2012X6S1E225K085AB | C2012X6S1C225K085AB |
| | | | ±20% | C2012X6S1H225M085AC | C2012X6S1V225M085AB | C2012X6S1E225M085AB | C2012X6S1C225M085AB |
| | | 1.25±0.20 | ±10% | C2012X6S1H225K125AB | C2012X6S1V225K125AB | C2012X6S1E225K125AC | |
| | | | ±20% | C2012X6S1H225M125AB | C2012X6S1V225M125AB | C2012X6S1E225M125AC | |
| 3216 | 1.60±0.20 | ±10% | C3216X6S1H225K160AB | C3216X6S1V225K160AB | | | |
| | | ±20% | C3216X6S1H225M160AB | C3216X6S1V225M160AB | | | |
| 3.3 µF | 1608 | 0.80+0.20, -0.10 | ±10% | | | | C1608X6S1C335K080AC |
| | | | ±20% | | | | C1608X6S1C335M080AC |
| | 2012 | 1.25±0.20 | ±10% | C2012X6S1H335K125AC | C2012X6S1V335K125AB | C2012X6S1E335K125AC | C2012X6S1C335K125AC |
| | | | ±20% | C2012X6S1H335M125AC | C2012X6S1V335M125AB | C2012X6S1E335M125AC | C2012X6S1C335M125AC |
| | 3216 | 1.60±0.20 | ±10% | C3216X6S1H335K160AB | C3216X6S1V335K160AB | | |
| | | | ±20% | C3216X6S1H335M160AB | C3216X6S1V335M160AB | | |
| 4.7 µF | 1608 | 0.80+0.20, -0.10 | ±10% | | | | C1608X6S1C475K080AC |
| | | | ±20% | | | | C1608X6S1C475M080AC |
| | 2012 | 0.85±0.15 | ±10% | | | | C2012X6S1C475K085AC |
| | | | ±20% | | | | C2012X6S1C475M085AC |
| | | 1.25±0.20 | ±10% | C2012X6S1H475K125AC | C2012X6S1V475K125AB | C2012X6S1E475K125AC | C2012X6S1C475K125AC |
| | | | ±20% | C2012X6S1H475M125AC | C2012X6S1V475M125AB | C2012X6S1E475M125AC | C2012X6S1C475M125AC |
| | 3216 | 0.85±0.15 | ±10% | | C3216X6S1V475K085AC | C3216X6S1E475K085AB | |
| | | | ±20% | | C3216X6S1V475M085AC | C3216X6S1E475M085AB | |
| 1.60±0.20 | | ±10% | C3216X6S1H475K160AB | C3216X6S1V475K160AB | C3216X6S1E475K160AB | | |
| | | ±20% | C3216X6S1H475M160AB | C3216X6S1V475M160AB | C3216X6S1E475M160AB | | |
| 3225 | 2.50+0.30 | ±10% | C3225X6S1H475K250AB | | | | |
| | | ±20% | C3225X6S1H475M250AB | | | | |
| 6.8 µF | 2012 | 1.25±0.20 | ±10% | | | | C2012X6S1C685K125AC |
| | | | ±20% | | | | C2012X6S1C685M125AC |
| | 3216 | 1.60±0.20 | ±10% | | C3216X6S1V685K160AC | C3216X6S1E685K160AB | C3216X6S1C685K160AC |
| | | | ±20% | | C3216X6S1V685M160AC | C3216X6S1E685M160AB | C3216X6S1C685M160AC |
| | 3225 | 2.50+0.30 | ±10% | C3225X6S1H685K250AC | C3225X6S1V685K250AC | C3225X6S1E685K250AB | |
| | | | ±20% | C3225X6S1H685M250AC | C3225X6S1V685M250AC | C3225X6S1E685M250AB | |
| 10 µF | 2012 | 0.85±0.15 | ±10% | | | | C2012X6S1C106K085AC |
| | | | ±20% | | | | C2012X6S1C106M085AC |
| | | 1.25±0.20 | ±10% | | | | C2012X6S1C106K125AC |
| | | | ±20% | | | | C2012X6S1C106M125AC |
| | 3216 | 0.85±0.15 | ±10% | | | | C3216X6S1C106K085AC |
| | | | ±20% | | | | C3216X6S1C106M085AC |
| 3225 | 2.50+0.30 | ±10% | | C3225X6S1V106K160AC | C3225X6S1E106K160AB | C3225X6S1C106K160AB | |
| | | ±20% | | C3225X6S1V106M160AC | C3225X6S1E106M160AB | C3225X6S1C106M160AB | |
| 15 µF | 2012 | 1.25±0.20 | ±10% | | | | C2012X6S1C156M125AC |
| | | | ±20% | | | | C3216X6S1C156M160AC |
| | 3216 | 1.60±0.20 | ±10% | | | | C2012X6S1C226M125AC |
| | | | ±20% | | | | C3216X6S1C226M160AC |
| 22 µF | 2012 | 1.25±0.20 | ±10% | | | | C2012X6S1C226M125AC |
| | | | ±20% | | | | C3216X6S1C226M160AC |
| 3216 | 1.60±0.20 | ±10% | | | | C3216X6S1C226M160AC | |
| | | ±20% | | | | C3225X6S1C226M250AC | |

Class 2 (Temperature Stable)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | |
|-------------|------|----------------|-----------------------|------------------------|-------------------------|-----------------------|
| | | | | Rated Voltage Edc: 10V | Rated Voltage Edc: 6.3V | Rated Voltage Edc: 4V |
| 100 pF | 0402 | 0.20±0.02 | ±10% | C0402X6S1A101K020BC | C0402X6S0J101K020BC | C0402X6S0G101K020BC |
| | | | ±20% | C0402X6S1A101M020BC | C0402X6S0J101M020BC | C0402X6S0G101M020BC |
| 150 pF | 0402 | 0.20±0.02 | ±10% | C0402X6S1A151K020BC | C0402X6S0J151K020BC | C0402X6S0G151K020BC |
| | | | ±20% | C0402X6S1A151M020BC | C0402X6S0J151M020BC | C0402X6S0G151M020BC |
| 220 pF | 0402 | 0.20±0.02 | ±10% | C0402X6S1A221K020BC | C0402X6S0J221K020BC | C0402X6S0G221K020BC |
| | | | ±20% | C0402X6S1A221M020BC | C0402X6S0J221M020BC | C0402X6S0G221M020BC |
| 330 pF | 0402 | 0.20±0.02 | ±10% | C0402X6S1A331K020BC | C0402X6S0J331K020BC | C0402X6S0G331K020BC |
| | | | ±20% | C0402X6S1A331M020BC | C0402X6S0J331M020BC | C0402X6S0G331M020BC |

■ The gray items are non-recommended products in the new design.

⚠ 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

Class 2 (Temperature Stable)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | |
|-------------|------|-----------------|-----------------------|------------------------|--------------------------|------------------------|
| | | | | Rated Voltage Edc: 10V | Rated Voltage Edc : 6.3V | Rated Voltage Edc : 4V |
| 470 pF | 0402 | 0.20±0.02 | ±10% | C0402X6S1A471K020BC | C0402X6S0J471K020BC | C0402X6S0G471K020BC |
| | | | ±20% | C0402X6S1A471M020BC | C0402X6S0J471M020BC | C0402X6S0G471M020BC |
| 680 pF | 0402 | 0.20±0.02 | ±10% | C0402X6S1A681K020BC | C0402X6S0J681K020BC | C0402X6S0G681K020BC |
| | | | ±20% | C0402X6S1A681M020BC | C0402X6S0J681M020BC | C0402X6S0G681M020BC |
| 2.2 nF | 0603 | 0.30±0.03 | ±10% | C0603X6S1A222K030BA | C0603X6S0J222K030BA | |
| | | | ±20% | C0603X6S1A222M030BA | C0603X6S0J222M030BA | |
| 4.7 nF | 0603 | 0.30±0.03 | ±10% | C0603X6S1A472K030BA | C0603X6S0J472K030BA | |
| | | | ±20% | C0603X6S1A472M030BA | C0603X6S0J472M030BA | |
| 10 nF | 0603 | 0.30±0.03 | ±10% | C0603X6S1A103K030BA | C0603X6S0J103K030BA | |
| | | | ±20% | C0603X6S1A103M030BA | C0603X6S0J103M030BA | |
| 22 nF | 0603 | 0.30±0.03 | ±10% | C0603X6S1A223K030BB | | C0603X6S0G223K030BC |
| | | | ±20% | C0603X6S1A223M030BB | | C0603X6S0G223M030BC |
| 47 nF | 0603 | 0.30±0.03 | ±10% | C0603X6S1A473K030BB | | C0603X6S0G473K030BC |
| | | | ±20% | C0603X6S1A473M030BB | | C0603X6S0G473M030BC |
| 68 nF | 0603 | 0.30±0.03 | ±10% | | | C0603X6S0G683K030BC |
| | | | ±20% | | | C0603X6S0G683M030BC |
| 100 nF | 0603 | 0.30±0.03 | ±10% | | C0603X6S0J104K030BC | C0603X6S0G104K030BC |
| | | | ±20% | | C0603X6S0J104M030BC | C0603X6S0G104M030BC |
| | 1005 | 0.50±0.05 | ±10% | | C1005X6S0J104K050BA | C1005X6S0G104K050BA |
| | | | ±20% | | C1005X6S0J104M050BA | C1005X6S0G104M050BA |
| 150 nF | 0603 | 0.30±0.03 | ±10% | C0603X6S0J154K030BC | C0603X6S0G154K030BC | C0603X6S0G154K030BB |
| | | | ±20% | C0603X6S0J154M030BC | C0603X6S0G154M030BC | C0603X6S0G154M030BB |
| | 1005 | 0.50±0.05 | ±10% | C0603X6S1A154K030BC | C1005X6S0J154K050BC | C1005X6S0G154K050BB |
| | | | ±20% | C0603X6S1A154M030BC | C1005X6S0J154M050BC | C1005X6S0G154M050BB |
| 220 nF | 0603 | 0.30±0.03 | ±10% | | C0603X6S0J224K030BC | C0603X6S0G224K030BB |
| | | | ±20% | | C0603X6S0J224M030BC | C0603X6S0G224M030BB |
| | 1005 | 0.50±0.05 | ±10% | C0603X6S1A224K030BC | C1005X6S0J224K050BC | C1005X6S0G224K050BB |
| | | | ±20% | C0603X6S1A224M030BC | C1005X6S0J224M050BC | C1005X6S0G224M050BB |
| 330 nF | 0603 | 0.30±0.05 | ±10% | | | C0603X6S0G334K030BC |
| | | | ±20% | | | C0603X6S0G334M030BC |
| | 1005 | 0.50±0.05 | ±10% | C1005X6S1A334K050BC | C1005X6S0J334K050BC | C1005X6S0G334K050BB |
| | | | ±20% | C1005X6S1A334M050BC | C1005X6S0J334M050BC | C1005X6S0G334M050BB |
| 470 nF | 0603 | 0.30±0.05 | ±10% | | | C0603X6S0G474M030BC |
| | | | ±20% | | | C0603X6S0G474M030BB |
| 680 nF | 1005 | 0.50±0.05 | ±10% | C1005X6S1A474K050BC | C1005X6S0J474K050BC | C1005X6S0G474K050BB |
| | | | ±20% | C1005X6S1A474M050BC | C1005X6S0J474M050BC | C1005X6S0G474M050BB |
| 1 µF | 1005 | 0.50±0.05 | ±10% | C1005X6S1A684K050BC | C1005X6S0J684K050BC | C1005X6S0G684K050BB |
| | | | ±20% | C1005X6S1A684M050BC | C1005X6S0J684M050BC | C1005X6S0G684M050BB |
| 1 µF | 1005 | 0.50±0.05 | ±10% | C1005X6S1A105K050BC | C1005X6S0J105K050BC | C1005X6S0G105K050BB |
| | | | ±20% | C1005X6S1A105M050BC | C1005X6S0J105M050BC | C1005X6S0G105M050BB |
| | 1608 | 0.80+0.15/-0.10 | ±10% | C1608X6S1A105K080AC | C1608X6S0J105K080AC | |
| | | | ±20% | C1608X6S1A105M080AC | C1608X6S0J105M080AC | |
| 1.5 µF | 1005 | 0.50±0.05 | ±10% | | C1005X6S0J155K050BC | C1005X6S0G155K050BC |
| | | | ±20% | | C1005X6S0J155M050BC | C1005X6S0G155M050BC |
| | 1608 | 0.80±0.10 | ±10% | C1005X6S1A155K050BC | C1608X6S0J155K080AB | |
| | | | ±20% | C1005X6S1A155M050BC | C1608X6S0J155M080AB | |
| 2.2 µF | 1005 | 0.50±0.05 | ±10% | | C1005X6S0J225K050BC | C1005X6S0G225K050BC |
| | | | ±20% | | C1005X6S0J225M050BC | C1005X6S0G225M050BC |
| | 1608 | 0.80±0.10 | ±10% | C1005X6S1A225K050BC | C1608X6S0J225K080AB | |
| | | | ±20% | C1005X6S1A225M050BC | C1608X6S0J225M080AB | |
| 3.3 µF | 1005 | 0.50±0.10 | ±10% | | | C1005X6S0G335K050BC |
| | | | ±20% | | | C1005X6S0G335M050BC |
| | 1608 | 0.80±0.10 | ±10% | C1608X6S1A335K080AC | C1608X6S0J335K080AB | |
| | | | ±20% | C1608X6S1A335M080AC | C1608X6S0J335M080AB | |
| 4.7 µF | 1005 | 0.50+0.15/-0.10 | ±10% | | | C1005X6S0G475M050BC |
| | | | ±20% | | | |
| 4.7 µF | 1608 | 0.80±0.10 | ±10% | C1608X6S1A475K080AC | C1608X6S0J475K080AB | |
| | | | ±20% | C1608X6S1A475M080AC | C1608X6S0J475M080AB | |

- The gray items are non-recommended products in the new design.
- The red items are products of the production will be stopped. Please confirm the schedule on product details information.

⚠ 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

Class 2 (Temperature Stable)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | | |
|-------------|---------------------|------------------|-----------------------|------------------------|-------------------------|-----------------------|---------------------|
| | | | | Rated Voltage Edc: 10V | Rated Voltage Edc: 6.3V | Rated Voltage Edc: 4V | |
| 4.7 µF | 2012 | 0.85±0.15 | ±10% | C2012X6S1A475K085AB | | | |
| | | | ±20% | C2012X6S1A475M085AB | | | |
| | | ±10% | | C2012X6S0J475K125AB | | | |
| | | 1.25±0.20 | ±10% | | C2012X6S0J475M125AB | | |
| | ±20% | | | C2012X6S0J475M125AB | | | |
| | | 1608 | 0.80±0.10 | ±10% | | | C1608X6S0G685K080AC |
| ±20% | | | | | C1608X6S0G685M080AC | | |
| ±10% | C1608X6S1A685K080AC | | C1608X6S0J685K080AB | | | | |
| | | 0.80+0.20, -0.10 | ±20% | C1608X6S1A685M080AC | C1608X6S0J685M080AB | | |
| 6.8 µF | 2012 | 0.85±0.15 | ±10% | C2012X6S1A685K085AC | C2012X6S0J685K085AB | | |
| | | | ±20% | C2012X6S1A685M085AC | C2012X6S0J685M085AB | | |
| | | ±10% | C2012X6S1A685K125AB | | | | |
| | | 1.25±0.20 | ±10% | C2012X6S1A685M125AB | | | |
| | ±20% | | C2012X6S1A685M125AB | | | | |
| | | 3216 | 0.85±0.15 | ±10% | C3216X6S1A685K085AB | | |
| | | | ±20% | C3216X6S1A685M085AB | | | |
| 10 µF | 1608 | 0.80±0.10 | ±10% | | | C1608X6S0G106K080AB | |
| | | | ±20% | | | C1608X6S0G106M080AC | |
| | | ±20% | C1608X6S1A106M080AC | C1608X6S0J106M080AC | | | |
| | | 2012 | 0.85±0.15 | ±10% | C2012X6S1A106K085AC | C2012X6S0J106K085AC | |
| | ±20% | | | C2012X6S1A106M085AC | C2012X6S0J106M085AC | | |
| | | | 1.25±0.20 | ±10% | C2012X6S1A106K125AB | C2012X6S0J106K125AB | C2012X6S0G106K125AC |
| | | | ±20% | C2012X6S1A106M125AB | C2012X6S0J106M125AB | C2012X6S0G106M125AC | |
| | 3216 | 0.85±0.15 | ±10% | C3216X6S1A106K085AB | | | |
| ±20% | | | C3216X6S1A106M085AB | | | | |
| ±10% | | | C3216X6S0J106K160AC | | | | |
| | | 1.60±0.20 | ±20% | | C3216X6S0J106M160AC | | |
| 15 µF | 2012 | 0.85±0.15 | ±20% | | | C2012X6S0G156M085AC | |
| | | | ±20% | C2012X6S1A156M125AC | C2012X6S0J156M125AB | | |
| | | 3216 | 1.60±0.20 | ±20% | C3216X6S1A156M160AB | C3216X6S0J156M160AB | |
| | ±20% | | | | | | |
| 22 µF | 2012 | 0.85±0.15 | ±20% | | C2012X6S0J226M085AC | C2012X6S0G226M085AC | |
| | | | ±20% | C2012X6S1A226M125AC | C2012X6S0J226M125AB | C2012X6S0G226M125AC | |
| | 3216 | 1.60±0.20 | ±20% | C3216X6S1A226M160AB | C3216X6S0J226M160AB | | |
| ±20% | | | | | | | |
| 33 µF | 2012 | 1.25±0.20 | ±20% | | | C2012X6S0G336M125AC | |
| | 3216 | 1.60±0.20 | ±20% | C3216X6S1A336M160AC | C3216X6S0J336M160AB | | |
| 47 µF | 2012 | 1.25±0.20 | ±20% | | | C2012X6S0G476M125AC | |
| | | | ±20% | C3216X6S1A476M160AC | C3216X6S0J476M160AB | C3216X6S0G476M160AC | |
| | 3225 | 2.50±0.30 | ±20% | | C3225X6S0J476M250AC | | |
| 68 µF | 3216 | 1.60+0.30, -0.10 | ±20% | | | C3216X6S0G686M160AC | |
| | | | ±20% | | | C3216X6S0G107M160AC | |
| 100 µF | 3225 | 2.50±0.30 | ±20% | | C3225X6S0J107M250AC | C3225X6S0G107M250AC | |
| | | | ±20% | | | | |
| | 4532 | 2.80±0.30 | ±20% | | C4532X6S0J107M280KC | | |

Class 2 (Temperature Stable)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | |
|-------------|------|----------------|-----------------------|------------------------|------------------------|
| | | | | Rated Voltage Edc: 50V | Rated Voltage Edc: 25V |
| 100 pF | 0603 | 0.30±0.03 | ±10% | | C0603X7R1E101K030BA |
| | | | ±20% | | C0603X7R1E101M030BA |
| 150 pF | 0603 | 0.30±0.03 | ±10% | | C0603X7R1E151K030BA |
| | | | ±20% | | C0603X7R1E151M030BA |
| 220 pF | 0603 | 0.30±0.03 | ±10% | | C0603X7R1E221K030BA |
| | | | ±20% | | C0603X7R1E221M030BA |
| | 1005 | 0.50±0.05 | ±10% | C1005X7R1H221K050BA | |
| | | | ±20% | C1005X7R1H221M050BA | |
| 330 pF | 0603 | 0.30±0.03 | ±10% | | C0603X7R1E331K030BA |
| | | | ±20% | | C0603X7R1E331M030BA |
| | 1005 | 0.50±0.05 | ±10% | C1005X7R1H331K050BA | |
| | | | ±20% | C1005X7R1H331M050BA | |
| 470 pF | 0603 | 0.30±0.03 | ±10% | | C0603X7R1E471K030BA |
| | | | ±20% | | C0603X7R1E471M030BA |
| | 1005 | 0.50±0.05 | ±10% | C1005X7R1H471K050BA | |
| | | | ±20% | C1005X7R1H471M050BA | |

- The gray items are non-recommended products in the new design.
- The red items are products of the production will be stopped. Please confirm the schedule on product details information.

⚠ 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

Class 2 (Temperature Stable)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | | |
|-------------|-----------|----------------|-----------------------|------------------------|------------------------|------------------------|------------------------|
| | | | | Rated Voltage Edc: 50V | Rated Voltage Edc: 35V | Rated Voltage Edc: 25V | Rated Voltage Edc: 16V |
| 680 pF | 0603 | 0.30±0.03 | ±10% | | | C0603X7R1E681K030BA | |
| | | | ±20% | | | C0603X7R1E681M030BA | |
| | 1005 | 0.50±0.05 | ±10% | C1005X7R1H681K050BA | | | |
| | | | ±20% | C1005X7R1H681M050BA | | | |
| 1 nF | 0603 | 0.30±0.03 | ±10% | | | C0603X7R1E102K030BA | |
| | | | ±20% | | | C0603X7R1E102M030BA | |
| | 1005 | 0.50±0.05 | ±10% | C1005X7R1H102K050BA | | | C1005X7R1E102K050BA |
| | | | ±20% | C1005X7R1H102M050BA | | | |
| 1.5 nF | 0603 | 0.30±0.03 | ±10% | | | C0603X7R1E152K030BA | |
| | | | ±20% | | | C0603X7R1E152M030BA | |
| | 1005 | 0.50±0.05 | ±10% | C1005X7R1H152K050BA | | | |
| | | | ±20% | C1005X7R1H152M050BA | | | |
| 2.2 nF | 0603 | 0.30±0.03 | ±10% | | | C0603X7R1E222K030BA | C0603X7R1C222K030BA |
| | | | ±20% | | | C0603X7R1E222M030BA | C0603X7R1C222M030BA |
| | 1005 | 0.50±0.05 | ±10% | C1005X7R1H222K050BA | | | |
| | | | ±20% | C1005X7R1H222M050BA | | | |
| 3.3 nF | 0603 | 0.30±0.03 | ±10% | | | C0603X7R1E332K030BA | |
| | | | ±20% | | | C0603X7R1E332M030BA | |
| | 1005 | 0.50±0.05 | ±10% | C1005X7R1H332K050BA | | | |
| | | | ±20% | C1005X7R1H332M050BA | | | |
| 4.7 nF | 0603 | 0.30±0.03 | ±10% | | | | C0603X7R1C472K030BA |
| | | | ±20% | | | | C0603X7R1C472M030BA |
| | 1005 | 0.50±0.05 | ±10% | C1005X7R1H472K050BA | | | |
| | | | ±20% | C1005X7R1H472M050BA | | | |
| 6.8 nF | 1005 | 0.50±0.05 | ±10% | C1005X7R1H682K050BA | | | |
| | | | ±20% | C1005X7R1H682M050BA | | | |
| | 1005 | 0.50±0.05 | ±10% | C1005X7R1H103K050BB | C1005X7R1V103K050BB | C1005X7R1E103K050BB | C1005X7R1C103K050BA |
| | | | ±20% | C1005X7R1H103M050BB | C1005X7R1V103M050BB | C1005X7R1E103M050BB | |
| 10 nF | 1608 | 0.80±0.10 | ±10% | C1608X7R1H103K080AA | | C1608X7R1E103K080AA | |
| | | | ±20% | C1608X7R1H103M080AA | | | |
| | 1005 | 0.50±0.05 | ±10% | C1005X7R1H153K050BB | C1005X7R1V153K050BB | | |
| | | | ±20% | C1005X7R1H153M050BB | C1005X7R1V153M050BB | | |
| 15 nF | 1608 | 0.80±0.10 | ±10% | C1608X7R1H153K080AA | | | |
| | | | ±20% | C1608X7R1H153M080AA | | | |
| | 1005 | 0.50±0.05 | ±10% | C1005X7R1H223K050BB | C1005X7R1V223K050BB | C1005X7R1E223K050BB | |
| | | | ±20% | C1005X7R1H223M050BB | C1005X7R1V223M050BB | C1005X7R1E223M050BB | |
| 22 nF | 1608 | 0.80±0.10 | ±10% | C1608X7R1H223K080AA | | | |
| | | | ±20% | C1608X7R1H223M080AA | | | |
| | 1005 | 0.50±0.05 | ±10% | C1005X7R1H333K050BB | C1005X7R1V333K050BB | | |
| | | | ±20% | C1005X7R1H333M050BB | C1005X7R1V333M050BB | | |
| 33 nF | 1608 | 0.80±0.10 | ±10% | C1608X7R1H333K080AA | | | |
| | | | ±20% | C1608X7R1H333M080AA | | | |
| | 1005 | 0.50±0.05 | ±10% | C1005X7R1H473K050BB | C1005X7R1V473K050BB | C1005X7R1E473K050BC | C1005X7R1C473K050BC |
| | | | ±20% | C1005X7R1H473M050BB | C1005X7R1V473M050BB | C1005X7R1E473M050BC | C1005X7R1C473M050BC |
| 47 nF | 1608 | 0.80±0.10 | ±10% | C1608X7R1H473K080AA | | | |
| | | | ±20% | C1608X7R1H473M080AA | | | |
| | 1005 | 0.50±0.05 | ±10% | C1005X7R1H683K050BB | C1005X7R1V683K050BB | C1005X7R1E683K050BB | C1005X7R1C683K050BC |
| | | | ±20% | C1005X7R1H683M050BB | C1005X7R1V683M050BB | C1005X7R1E683M050BB | C1005X7R1C683M050BC |
| 68 nF | 1608 | 0.80±0.10 | ±10% | C1608X7R1H683K080AA | | | |
| | | | ±20% | C1608X7R1H683M080AA | | | |
| | 1005 | 0.50±0.05 | ±10% | C1005X7R1H104K050BB | C1005X7R1V104K050BB | C1005X7R1E104K050BB | C1005X7R1C104K050BC |
| | | | ±20% | C1005X7R1H104M050BB | C1005X7R1V104M050BB | C1005X7R1E104M050BB | C1005X7R1C104M050BC |
| 100 nF | 1608 | 0.80±0.10 | ±10% | C1608X7R1H104K080AA | | C1608X7R1E104K080AA | |
| | | | ±20% | C1608X7R1H104M080AA | | C1608X7R1E104M080AA | |
| | 2012 | 0.85±0.15 | ±10% | C2012X7R1H104K085AA | | | |
| | | | ±20% | C2012X7R1H104M085AA | | | |
| 150 nF | 1005 | 0.50±0.05 | ±10% | | C1005X7R1V154K050BC | C1005X7R1E154K050BB | C1005X7R1C154K050BC |
| | | | ±20% | | C1005X7R1V154M050BC | C1005X7R1E154M050BB | C1005X7R1C154M050BC |
| | 1608 | 0.80±0.10 | ±10% | C1608X7R1H154K080AB | C1608X7R1V154K080AB | C1608X7R1E154K080AA | |
| | | | ±20% | C1608X7R1H154M080AB | C1608X7R1V154M080AB | C1608X7R1E154M080AA | |
| 2012 | 0.85±0.15 | ±10% | C2012X7R1H154K085AA | | | | |
| | | ±20% | C2012X7R1H154M085AA | | | | |

■ The gray items are non-recommended products in the new design.

⚠ 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

Class 2 (Temperature Stable)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | | |
|-------------|-----------|----------------|-----------------------|------------------------|------------------------|------------------------|------------------------|
| | | | | Rated Voltage Edc: 50V | Rated Voltage Edc: 35V | Rated Voltage Edc: 25V | Rated Voltage Edc: 16V |
| 150 nF | 2012 | 1.25±0.20 | ±10% | C2012X7R1H154K125AA | | | |
| | | | ±20% | C2012X7R1H154M125AA | | | |
| 220 nF | 1005 | 0.50±0.05 | ±10% | | C1005X7R1V224K050BC | C1005X7R1E224K050BB | C1005X7R1C224K050BC |
| | | | ±20% | | C1005X7R1V224M050BC | C1005X7R1E224M050BB | C1005X7R1C224M050BC |
| | 1608 | 0.80±0.10 | ±10% | C1608X7R1H224K080AB | C1608X7R1V224K080AB | C1608X7R1E224K080AC | C1608X7R1C224K080AC |
| | | | ±20% | C1608X7R1H224M080AB | C1608X7R1V224M080AB | C1608X7R1E224M080AC | C1608X7R1C224M080AC |
| | 2012 | 1.25±0.20 | ±10% | C2012X7R1H224K125AA | | | |
| | | | ±20% | C2012X7R1H224M125AA | | | |
| 3216 | 1.15±0.15 | ±10% | C3216X7R1H224K115AA | | | | |
| | | ±20% | C3216X7R1H224M115AA | | | | |
| 330 nF | 1608 | 0.80±0.10 | ±10% | C1608X7R1H334K080AC | C1608X7R1V334K080AB | C1608X7R1E334K080AC | C1608X7R1C334K080AC |
| | | | ±20% | C1608X7R1H334M080AC | C1608X7R1V334M080AB | C1608X7R1E334M080AC | C1608X7R1C334M080AC |
| | 2012 | 1.25±0.20 | ±10% | C2012X7R1H334K125AA | | | |
| | | | ±20% | C2012X7R1H334M125AA | | | |
| | 3216 | 1.60±0.20 | ±10% | C3216X7R1H334K160AA | | | |
| | | | ±20% | C3216X7R1H334M160AA | | | |
| 470 nF | 1608 | 0.80±0.10 | ±10% | C1608X7R1H474K080AC | C1608X7R1V474K080AB | C1608X7R1E474K080AB | C1608X7R1C474K080AC |
| | | | ±20% | C1608X7R1H474M080AC | C1608X7R1V474M080AB | C1608X7R1E474M080AB | C1608X7R1C474M080AC |
| | 2012 | 1.25±0.20 | ±10% | C2012X7R1H474K125AB | C2012X7R1V474K125AB | C2012X7R1E474K125AA | |
| | | | ±20% | C2012X7R1H474M125AB | C2012X7R1V474M125AB | C2012X7R1E474M125AA | |
| | 3216 | 1.60±0.20 | ±10% | C3216X7R1H474K160AA | | | |
| | | | ±20% | C3216X7R1H474M160AA | | | |
| 680 nF | 1608 | 0.80±0.10 | ±10% | | C1608X7R1V684K080AC | C1608X7R1E684K080AB | C1608X7R1C684K080AC |
| | | | ±20% | | C1608X7R1V684M080AC | C1608X7R1E684M080AB | C1608X7R1C684M080AC |
| | 2012 | 1.25±0.20 | ±10% | C2012X7R1H684K125AB | C2012X7R1V684K125AB | C2012X7R1E684K125AB | C2012X7R1C684K125AA |
| | | | ±20% | C2012X7R1H684M125AB | C2012X7R1V684M125AB | C2012X7R1E684M125AB | C2012X7R1C684M125AA |
| | 3216 | 1.60±0.20 | ±10% | C3216X7R1H684K160AA | | | |
| | | | ±20% | C3216X7R1H684M160AA | | | |
| 1 µF | 1608 | 0.80±0.10 | ±10% | | C1608X7R1V105K080AC | C1608X7R1E105K080AB | C1608X7R1C105K080AC |
| | | | ±20% | | C1608X7R1V105M080AC | C1608X7R1E105M080AB | C1608X7R1C105M080AC |
| | 2012 | 0.85±0.15 | ±10% | C2012X7R1H105K085AC | C2012X7R1V105K085AB | C2012X7R1E105K085AB | C2012X7R1C105K085AC |
| | | | ±20% | C2012X7R1H105M085AC | C2012X7R1V105M085AB | C2012X7R1E105M085AB | C2012X7R1C105M085AC |
| | 2012 | 1.25±0.20 | ±10% | C2012X7R1H105K125AB | C2012X7R1V105K125AB | C2012X7R1E105K125AB | C2012X7R1C105K125AA |
| | | | ±20% | C2012X7R1H105M125AB | C2012X7R1V105M125AB | C2012X7R1E105M125AB | C2012X7R1C105M125AA |
| | 3216 | 0.85±0.15 | ±10% | | | C3216X7R1E105K085AA | |
| | | | ±20% | | | C3216X7R1E105M085AA | |
| | 3216 | 1.60±0.20 | ±10% | C3216X7R1H105K160AB | | | C3216X7R1E105K160AA |
| | | | ±20% | C3216X7R1H105M160AB | | | C3216X7R1E105M160AA |
| | 3225 | 1.60±0.20 | ±10% | C3225X7R1H105K160AA | | | |
| | | | ±20% | C3225X7R1H105M160AA | | | |
| 4532 | 1.60±0.20 | ±10% | C4532X7R1H105K160KA | | | | |
| | | ±20% | C4532X7R1H105M160KA | | | | |
| 1.5 µF | 2012 | 1.25±0.20 | ±10% | C2012X7R1H155K125AC | C2012X7R1V155K125AB | C2012X7R1E155K125AC | C2012X7R1C155K125AB |
| | | | ±20% | C2012X7R1H155M125AC | C2012X7R1V155M125AB | C2012X7R1E155M125AC | C2012X7R1C155M125AB |
| | 3216 | 1.60±0.20 | ±10% | C3216X7R1H155K160AB | C3216X7R1V155K160AB | C3216X7R1E155K160AA | |
| | | | ±20% | C3216X7R1H155M160AB | C3216X7R1V155M160AB | C3216X7R1E155M160AA | |
| | 3225 | 2.00±0.20 | ±10% | C3225X7R1H155K200AA | | | |
| | | | ±20% | C3225X7R1H155M200AA | | | |
| 2.2 µF | 2012 | 0.85±0.15 | ±10% | | C2012X7R1V225K085AC | C2012X7R1E225K085AB | C2012X7R1C225K085AB |
| | | | ±20% | | C2012X7R1V225M085AC | C2012X7R1E225M085AB | C2012X7R1C225M085AB |
| | 2012 | 1.25±0.20 | ±10% | C2012X7R1H225K125AC | C2012X7R1V225K125AB | C2012X7R1E225K125AB | C2012X7R1C225K125AB |
| | | | ±20% | C2012X7R1H225M125AC | C2012X7R1V225M125AB | C2012X7R1E225M125AB | C2012X7R1C225M125AB |
| | 3216 | 1.60±0.20 | ±10% | C3216X7R1H225K160AB | C3216X7R1V225K160AB | C3216X7R1E225K160AA | |
| | | | ±20% | C3216X7R1H225M160AB | C3216X7R1V225M160AB | C3216X7R1E225M160AA | |
| | 3225 | 2.00±0.20 | ±10% | C3225X7R1H225K200AB | | | |
| | | | ±20% | C3225X7R1H225M200AB | | | |
| | 4532 | 1.60±0.20 | ±10% | C4532X7R1H225K250AB | | | |
| | | | ±20% | C4532X7R1H225M250AB | | | |
| | 4532 | 1.60±0.20 | ±10% | C4532X7R1H225K160KA | | | |
| | | | ±20% | C4532X7R1H225M160KA | | | |

⚠ 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

Class 2 (Temperature Stable)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | | | |
|-------------|-----------|----------------|-----------------------|------------------------|------------------------|------------------------|------------------------|---------------------|
| | | | | Rated Voltage Edc: 50V | Rated Voltage Edc: 35V | Rated Voltage Edc: 25V | Rated Voltage Edc: 16V | |
| 3.3 μF | 2012 | 1.25±0.20 | ±10% | | C2012X7R1V335K125AC | C2012X7R1E335K125AB | C2012X7R1C335K125AB | |
| | | | ±20% | | C2012X7R1V335M125AC | C2012X7R1E335M125AB | C2012X7R1C335M125AB | |
| | 3216 | 1.60±0.20 | ±10% | C3216X7R1H335K160AC | C3216X7R1V335K160AB | C3216X7R1E335K160AC | | |
| | | | ±20% | C3216X7R1H335M160AC | C3216X7R1V335M160AB | C3216X7R1E335M160AC | | |
| | 3225 | 1.60±0.20 | ±10% | | | C3225X7R1E335K160AA | | |
| | | | ±20% | | | C3225X7R1E335M160AA | | |
| | 4532 | 2.00±0.20 | ±10% | C4532X7R1H335K200KA | | | | |
| | | | ±20% | C4532X7R1H335M200KA | | | | |
| | 4.7 μF | 2012 | 1.25±0.20 | ±10% | | C2012X7R1V475K125AC | C2012X7R1E475K125AB | C2012X7R1C475K125AB |
| | | | | ±20% | | C2012X7R1V475M125AC | C2012X7R1E475M125AB | C2012X7R1C475M125AB |
| 3216 | | 0.85±0.15 | ±10% | | C3216X7R1V475K085AC | C3216X7R1E475K085AB | C3216X7R1C475K085AB | |
| | | | ±20% | | C3216X7R1V475M085AC | C3216X7R1E475M085AB | C3216X7R1C475M085AB | |
| 3216 | | 1.60±0.20 | ±10% | C3216X7R1H475K160AC | C3216X7R1V475K160AB | C3216X7R1E475K160AC | C3216X7R1C475K160AB | |
| | | | ±20% | C3216X7R1H475M160AC | C3216X7R1V475M160AB | C3216X7R1E475M160AC | C3216X7R1C475M160AB | |
| 3225 | | 2.00±0.20 | ±10% | | | C3225X7R1E475K200AA | | |
| | | | ±20% | | | C3225X7R1E475M200AA | | |
| 3225 | | 2.50±0.30 | ±10% | C3225X7R1H475K250AB | | | | |
| | | | ±20% | C3225X7R1H475M250AB | | | | |
| 4532 | | 2.00±0.20 | ±10% | C4532X7R1H475K200KB | | | | |
| | | | ±20% | C4532X7R1H475M200KB | | C4532X7R1E475M200KA | | |
| 5750 | | 2.00±0.20 | ±10% | C5750X7R1H475K200KA | | | | |
| | | | ±20% | C5750X7R1H475M200KA | | | | |
| 5750 | 2.80±0.30 | ±10% | C5750X7R1H475M280KA | | | | | |
| | | ±20% | | | | | | |
| 6.8 μF | 3216 | 1.60±0.20 | ±10% | | C3216X7R1V685K160AC | C3216X7R1E685K160AB | C3216X7R1C685K160AC | |
| | | | ±20% | | C3216X7R1V685M160AC | C3216X7R1E685M160AB | C3216X7R1C685M160AC | |
| | 3225 | 2.50±0.30 | ±10% | | | C3225X7R1E685K250AB | | |
| | | | ±20% | | | C3225X7R1E685M250AB | | |
| | 4532 | 2.50±0.30 | ±10% | C4532X7R1H685K250KB | | | | |
| | | | ±20% | C4532X7R1H685M250KB | | | | |
| 5750 | 2.50±0.30 | ±10% | C5750X7R1H685K250KA | | | | | |
| | | ±20% | C5750X7R1H685M250KA | | | | | |
| 10 μF | 3216 | 1.60±0.20 | ±10% | | C3216X7R1V106K160AC | C3216X7R1E106K160AB | C3216X7R1C106K160AC | |
| | | | ±20% | | C3216X7R1V106M160AC | C3216X7R1E106M160AB | C3216X7R1C106M160AC | |
| | 3225 | 2.00±0.20 | ±10% | | | | C3225X7R1C106K200AB | |
| | | | ±20% | | | | C3225X7R1C106M200AB | |
| | 3225 | 2.50±0.30 | ±10% | | | C3225X7R1E106K250AC | | |
| | | | ±20% | C3225X7R1H106M250AC | | C3225X7R1E106M250AC | | |
| | 4532 | 2.30±0.20 | ±10% | | | | C4532X7R1C106K230KA | |
| | | | ±20% | | | | C4532X7R1C106M230KA | |
| | 4532 | 2.50±0.30 | ±10% | | | C4532X7R1E106K250KA | | |
| | | | ±20% | | | C4532X7R1E106M250KA | | |
| 5750 | 2.00±0.20 | ±10% | | | C5750X7R1E106M200KA | | | |
| | | ±20% | | | | | | |
| 5750 | 2.30±0.20 | ±10% | C5750X7R1H106K230KB | | | | | |
| | | ±20% | C5750X7R1H106M230KB | | | | | |
| 15 μF | 3225 | 2.50±0.30 | ±10% | | | | C3225X7R1C156M250AB | |
| | | | ±20% | | | | | |
| | 4532 | 2.50±0.30 | ±10% | | | C4532X7R1E156M250KC | | |
| | | | ±20% | | | C4532X7R1E156M280KB | | |
| 5750 | 2.80±0.20 | ±10% | | | C5750X7R1E156M230KA | | | |
| | | ±20% | | | | | | |
| 22 μF | 3225 | 2.50±0.30 | ±10% | | | | C3225X7R1C226K250AC | |
| | | | ±20% | | | | C3225X7R1C226M250AC | |
| | 4532 | 2.00±0.20 | ±10% | | | | C4532X7R1C226M200KC | |
| | | | ±20% | | | | C4532X7R1C226M230KB | |
| | 4532 | 2.30±0.20 | ±10% | | | C4532X7R1E226M250KC | | |
| | | | ±20% | | | C4532X7R1E226M250KA | | |
| 5750 | 2.50±0.30 | ±10% | | | | C5750X7R1C226M280KA | | |
| | | ±20% | | | | | | |
| 33 μF | 4532 | 2.50±0.30 | ±10% | | | | C4532X7R1C336M250KC | |
| | | | ±20% | | | | | |
| 47 μF | 5750 | 2.00±0.20 | ±10% | | | | C5750X7R1C336M200KB | |
| | | | ±20% | | | | C5750X7R1C476M230KB | |

⚠ 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

Class 2 (Temperature Stable)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | |
|-------------|------|-----------------|-----------------------|------------------------|-------------------------|-----------------------|
| | | | | Rated Voltage Edc: 10V | Rated Voltage Edc: 6.3V | Rated Voltage Edc: 4V |
| 100 pF | 0402 | 0.20±0.02 | ±10% | C0402X7R1A101K020BC | C0402X7R0J101K020BC | C0402X7R0G101K020BC |
| | | | ±20% | C0402X7R1A101M020BC | C0402X7R0J101M020BC | C0402X7R0G101M020BC |
| 150 pF | 0402 | 0.20±0.02 | ±10% | C0402X7R1A151K020BC | C0402X7R0J151K020BC | C0402X7R0G151K020BC |
| | | | ±20% | C0402X7R1A151M020BC | C0402X7R0J151M020BC | C0402X7R0G151M020BC |
| 220 pF | 0402 | 0.20±0.02 | ±10% | C0402X7R1A221K020BC | C0402X7R0J221K020BC | C0402X7R0G221K020BC |
| | | | ±20% | C0402X7R1A221M020BC | C0402X7R0J221M020BC | C0402X7R0G221M020BC |
| 330 pF | 0402 | 0.20±0.02 | ±10% | C0402X7R1A331K020BC | C0402X7R0J331K020BC | C0402X7R0G331K020BC |
| | | | ±20% | C0402X7R1A331M020BC | C0402X7R0J331M020BC | C0402X7R0G331M020BC |
| 470 pF | 0402 | 0.20±0.02 | ±10% | C0402X7R1A471K020BC | C0402X7R0J471K020BC | C0402X7R0G471K020BC |
| | | | ±20% | C0402X7R1A471M020BC | C0402X7R0J471M020BC | C0402X7R0G471M020BC |
| 680 pF | 0402 | 0.20±0.02 | ±10% | C0402X7R1A681K020BC | C0402X7R0J681K020BC | C0402X7R0G681K020BC |
| | | | ±20% | C0402X7R1A681M020BC | C0402X7R0J681M020BC | C0402X7R0G681M020BC |
| 1 nF | 0402 | 0.20±0.02 | ±10% | C0402X7R1A102K020BC | | |
| 1.5 nF | 0402 | 0.20±0.02 | ±10% | C0402X7R1A102M020BC | | |
| | | | ±20% | C0402X7R1A152K020BC | | |
| 2.2 nF | 0603 | 0.30±0.03 | ±10% | C0603X7R1A222K030BA | C0603X7R0J222K030BA | |
| | | | ±20% | C0603X7R1A222M030BA | C0603X7R0J222M030BA | |
| 4.7 nF | 0603 | 0.30±0.03 | ±10% | C0603X7R1A472K030BA | C0603X7R0J472K030BA | |
| | | | ±20% | C0603X7R1A472M030BA | C0603X7R0J472M030BA | |
| 10 nF | 0603 | 0.30±0.03 | ±10% | C0603X7R1A103K030BA | C0603X7R0J103K030BA | |
| 100 nF | 1005 | 0.50±0.05 | ±10% | C1005X7R1A104K050BB | | |
| | | | ±20% | C1005X7R1A154K050BB | | |
| 150 nF | 1005 | 0.50±0.05 | ±10% | C1005X7R1A154M050BB | | |
| | | | ±20% | C1005X7R1A224K050BB | | |
| 220 nF | 1005 | 0.50±0.05 | ±10% | C1005X7R1A224M050BB | | |
| | | | ±20% | C1005X7R1A224M050BB | | |
| 680 nF | 1608 | 0.80+0.15/-0.10 | ±10% | C1608X7R1A684K080AC | | |
| | | | ±20% | C1608X7R1A684M080AC | | |
| 1 μF | 1608 | 0.80+0.15/-0.10 | ±10% | C1608X7R1A105K080AC | | |
| | | | ±20% | C1608X7R1A105M080AC | | |
| 1.5 μF | 1608 | 0.80±0.10 | ±10% | C1608X7R1A155K080AC | C1608X7R0J155K080AB | |
| | | | ±20% | C1608X7R1A155M080AC | C1608X7R0J155M080AB | |
| 2.2 μF | 1608 | 0.80±0.10 | ±10% | C1608X7R1A225K080AC | C1608X7R0J225K080AB | |
| | | | ±20% | C1608X7R1A225M080AC | C1608X7R0J225M080AB | |
| 3.3 μF | 2012 | 1.25±0.20 | ±10% | C2012X7R1A335K125AC | | |
| | | | ±20% | C2012X7R1A335M125AC | | |
| 4.7 μF | 2012 | 0.85±0.15 | ±10% | C2012X7R1A475K085AC | C2012X7R0J475K085AB | |
| | | | ±20% | C2012X7R1A475M085AC | C2012X7R0J475M085AB | |
| | | 1.25±0.20 | ±10% | C2012X7R1A475K125AC | | |
| | | | ±20% | C2012X7R1A475M125AC | | |
| 6.8 μF | 2012 | 1.25±0.20 | ±10% | C2012X7R1A685K125AC | C2012X7R0J685K125AB | |
| | | | ±20% | C2012X7R1A685M125AC | C2012X7R0J685M125AB | |
| 10 μF | 2012 | 1.25±0.20 | ±10% | C2012X7R1A106K125AC | C2012X7R0J106K125AB | |
| | | | ±20% | C2012X7R1A106M125AC | C2012X7R0J106M125AB | |
| | 3216 | 0.85±0.15 | ±10% | C3216X7R1A106K085AC | C3216X7R0J106K085AB | |
| | | | ±20% | C3216X7R1A106M085AC | C3216X7R0J106M085AB | |
| | | 1.60±0.20 | ±10% | C3216X7R1A106K160AC | | |
| | | | ±20% | C3216X7R1A106M160AC | | |
| 22 μF | 3225 | 2.30±0.20 | ±10% | C3225X7R1A226K230AC | | |
| | | | ±20% | C3225X7R1A226M230AC | | |

■ The gray items are non-recommended products in the new design.

MULTILAYER CERAMIC CHIP CAPACITORS



Capacitance Range Table

Class 2 (Temperature Stable)

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

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number | | | | |
|-------------|------------------|------------------|-----------------------|------------------------|------------------------|------------------------|-------------------------|-----------------------|
| | | | | Rated Voltage Edc: 50V | Rated Voltage Edc: 16V | Rated Voltage Edc: 10V | Rated Voltage Edc: 6.3V | Rated Voltage Edc: 4V |
| 22 nF | 0603 | 0.30±0.03 | ±10% | | | C0603X7S1A223K030BC | C0603X7S0J223K030BB | |
| | | | ±20% | | | C0603X7S1A223M030BC | C0603X7S0J223M030BB | |
| 47 nF | 0603 | 0.30±0.03 | ±10% | | | C0603X7S1A473K030BC | C0603X7S0J473K030BB | |
| | | | ±20% | | | C0603X7S1A473M030BC | C0603X7S0J473M030BB | |
| 100 nF | 0603 | 0.30±0.03 | ±10% | | | C0603X7S1A104K030BC | | C0603X7S0G104K030BC |
| | | | ±20% | | | C0603X7S1A104M030BC | | C0603X7S0G104M030BC |
| 150 nF | 0603 | 0.30±0.05 | ±10% | | | | C0603X7S0J154K030BC | |
| | | | ±20% | | | | C0603X7S0J154M030BC | |
| 220 nF | 0603 | 0.30±0.03 | ±10% | | | | | C0603X7S0G224K030BC |
| | | | ±20% | | | | | C0603X7S0G224M030BC |
| | | 0.30±0.05 | ±10% | | | | C0603X7S0J224K030BC | |
| | | | ±20% | | | | C0603X7S0J224M030BC | |
| 330 nF | 1005 | 0.50±0.05 | ±10% | C1005X7S1C334K050BC | C1005X7S1A334K050BC | C1005X7S0J334K050BC | | |
| | | | ±20% | C1005X7S1C334M050BC | C1005X7S1A334M050BC | C1005X7S0J334M050BC | | |
| 470 nF | 1005 | 0.50±0.05 | ±10% | C1005X7S1C474K050BC | C1005X7S1A474K050BC | C1005X7S0J474K050BB | | |
| | | | ±20% | C1005X7S1C474M050BC | C1005X7S1A474M050BC | C1005X7S0J474M050BB | | |
| 680 nF | 1005 | 0.50±0.05 | ±10% | | C1005X7S1A684K050BC | C1005X7S0J684K050BC | C1005X7S0G684K050BC | |
| | | | ±20% | | C1005X7S1A684M050BC | C1005X7S0J684M050BC | C1005X7S0G684M050BC | |
| 1 μF | 1005 | 0.50±0.05 | ±10% | | C1005X7S1A105K050BC | C1005X7S0J105K050BC | C1005X7S0G105K050BC | |
| | | | ±20% | | C1005X7S1A105M050BC | C1005X7S0J105M050BC | C1005X7S0G105M050BC | |
| 1.5 μF | 1005 | 0.50+0.15/-0.10 | ±10% | | C1005X7S1A155K050BC | | | |
| | | | ±20% | | C1005X7S1A155M050BC | | | |
| | | 0.50±0.05 | ±10% | | | | C1005X7S0G155K050BC | |
| | 1608 | 0.80±0.10 | ±10% | | C1608X7S1C155K080AC | | | |
| | | | ±20% | | C1608X7S1C155M080AC | | | |
| | | 0.50±0.10 | ±10% | | | | C1005X7S0J155K050BC | |
| 2.2 μF | 1005 | 0.50+0.15/-0.10 | ±10% | | C1005X7S1A225K050BC | | | |
| | | | ±20% | | C1005X7S1A225M050BC | | | |
| | | 0.50±0.05 | ±10% | | | | C1005X7S0G225K050BC | |
| | 1608 | 0.80±0.10 | ±10% | | C1608X7S1C225K080AC | C1608X7S1A225K080AC | C1608X7S0J225K080AB | |
| | | | ±20% | | C1608X7S1C225M080AC | C1608X7S1A225M080AC | C1608X7S0J225M080AB | |
| | | 0.80±0.10 | ±10% | | | | C1005X7S0J225K050BC | |
| 3.3 μF | 1608 | 0.80±0.10 | ±10% | | | | C1608X7S0G335K080AC | |
| | | | ±20% | | | | C1608X7S0G335M080AC | |
| 4.7 μF | 1608 | 0.80±0.10 | ±10% | | | | C1608X7S0J475K080AC | |
| | | | ±20% | | | | C1608X7S0J475M080AC | |
| | 0.80+0.20, -0.10 | ±10% | | | C1608X7S1A475K080AC | | | |
| | | ±20% | | | C1608X7S1A475M080AC | | | |
| 6.8 μF | 1608 | 0.80+0.20, -0.10 | ±10% | | | | C1608X7S0J685K080AC | |
| | | | ±20% | | | | C1608X7S0J685M080AC | |
| | 2012 | 1.25±0.20 | ±10% | | C2012X7S1C685K125AC | | | |
| | | | ±20% | | C2012X7S1C685M125AC | | | |
| 10 μF | 3225 | 2.50±0.30 | ±10% | | C3225X7S1H685K250AB | | | |
| | | | ±20% | | C3225X7S1H685M250AB | | | |
| | 1608 | 0.80+0.20, -0.10 | ±10% | | | | C1608X7S0J106M080AC | |
| | | | ±20% | | | | C1608X7S0G106M080AB | |
| 15 μF | 2012 | 1.25±0.20 | ±10% | | | | C2012X7S0J106K085AC | |
| | | | ±20% | | | | C2012X7S0G106K085AC | |
| | 3216 | 1.60±0.20 | ±10% | | C2012X7S1C106K125AC | | | |
| | | | ±20% | | C2012X7S1C106M125AC | | | |
| 22 μF | 2012 | 1.25±0.20 | ±10% | | | | C2012X7S0J106M085AC | |
| | | | ±20% | | | | C2012X7S0G106M085AC | |
| | 3216 | 1.60±0.20 | ±10% | | C3225X7S1H106K250AB | | | |
| | | | ±20% | | C3225X7S1H106M250AB | | | |
| 33 μF | 3216 | 1.60±0.20 | ±10% | | C2012X7S1A156M125AC | C2012X7S0J156M125AC | C2012X7S0G156M125AC | |
| | | | ±20% | | C3216X7S1A156M160AC | C3216X7S0J156M160AB | | |
| 47 μF | 3216 | 1.60±0.20 | ±10% | | C2012X7S1A226M125AC | C2012X7S0J226M125AC | C2012X7S0G226M125AC | |
| | | | ±20% | | C3216X7S1A226M160AC | C3216X7S0J226M160AB | | |
| 33 μF | 3216 | 1.60±0.20 | ±10% | | | | C3216X7S0G336M160AB | |
| | | | ±20% | | | | C3216X7S0G476M160AB | |
| 47 μF | 3216 | 1.60±0.20 | ±10% | | | | C3216X7S0J476M160AC | |
| | | | ±20% | | | | C3216X7S0G476M160AB | |
| 47 μF | 3225 | 2.50±0.30 | ±10% | | | | C3225X7S0J476M250AC | |
| | | | ±20% | | | | | |

■ The gray items are non-recommended products in the new design.

⚠ 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.