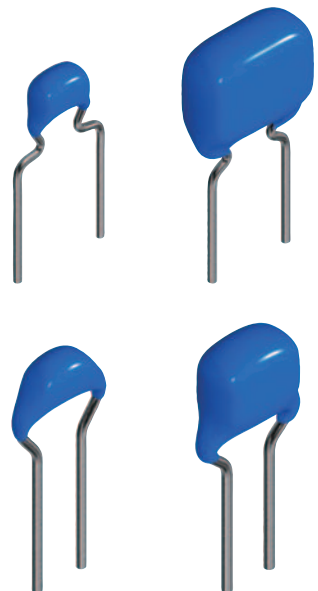


Capacitor with multi-layer lead

(Halogen-free, automotive grade)

FA series

| | | |
|-------|------------|---|
| Type: | Lead pitch | 5.0 mm |
| | | FA28 [4.0x5.5mm] FA24 [4.5x5.5mm] FA26 [5.5x6.0mm] FA20 [5.5x7.0mm] FA22 [7.5x8.5mm] FA23 [8.5x11.0mm] |
| | Lead pitch | 2.5 mm |
| | | FA18 [4.0x5.5mm] FA14 [4.5x5.5mm] FA16 [5.5x6.0mm] FA11 [5.5x7.0mm] |



REMINDERS FOR USING THESE PRODUCTS

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

SAFETY REMINDERS

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

REMINDERS

1. The products listed in this specification are intended for use in automotive applications under normal operation and usage conditions. The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality requires a more stringent level of safety or reliability, or whose failure, malfunction or defect could cause serious damage to society, person or property.

Please understand that we are not responsible for any damage or liability caused by use of the products in any of the applications below or for any other use exceeding the range or conditions set forth in this specification sheet. If you intend to use the products in the applications listed below or if you have special requirements exceeding the range or conditions set forth in this specification, please contact us.

- | | |
|--|--|
| (1) Aerospace/aviation equipment | (8) Public information-processing equipment |
| (2) Transportation equipment (electric trains, ships, etc.) | (9) Military equipment |
| (3) Medical equipment (excepting Pharmaceutical Affairs Law classification Class1,2) | (10) Electric heating apparatus, burning equipment |
| (4) Power-generation control equipment | (11) Disaster prevention/crime prevention equipment |
| (5) Atomic energy-related equipment | (12) Safety equipment |
| (6) Seabed equipment | (13) Other applications that are not considered general-purpose applications |
| (7) Transportation control equipment | |

When designing your equipment even for general-purpose applications, you are kindly requested to take into consideration securing protection circuit/device or providing backup circuits in your equipment.

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

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

MLCC with dipped radial lead

Halogen-free, automotive grade

Product compatible with RoHS directive
Halogen-free

Overview of the FA series

FEATURES

- A complete lineup with a rated voltage of 25V to 630V.
- Compatible with a wide capacitance range of 1pF to 22 μ F.
- The FA series for automotive use is AEC-Q200 compliant.

APPLICATION

- Noise reduction measures for various motors for automotive use
- Resonant circuits in areas such as keyless entry systems
- Bypass capacitors such as for switching power sources, smoothing capacitors, etc.
- Snubber circuits
- PFC input filters

PART NUMBER CONSTRUCTION

| FA | 2 | 8 | COG | 1H | 010 | C | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|-------------|-----------------|-----------------------|---|-------------------|--------------------------|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Series name | Lead pitch (mm) | LxWxT dimensions (mm) | Capacitance temperature characteristics | Rated voltage (V) | Nominal capacitance (pF) | Capacitance tolerance* | Internal code | Packaging style** | | |
| | 1 2.5 | 8 4.0x5.5x2.5 | COG 0 \pm 30ppm/ $^{\circ}$ C | 1E 25 | 010 1 | C \pm 0.25pF | | 0 | Bulk | |
| | 2 5.0 | 4 4.5x5.5x3.0 | X7R \pm 15% | 1H 50 | 100 10 | D \pm 0.5pF | | 6 | Taping | |
| | | 6 5.5x6.0x3.5 | X7S \pm 22% | 2A 100 | 101 100 | J \pm 5% | | | | |
| | | 0 5.5x7.0x4.0 | X7T +22, -33% | 2E 250 | 102 1,000 | K \pm 10% | | | | |
| | | 1 5.5x7.0x4.0 | | 2W 450 | | M \pm 20% | | | | |
| | | 2 7.5x8.5x4.5 | | 2J 630 | | | | | | |
| | | 3 8.5x11.0x5.5 | | | | | | | | |

* Applicable capacitance range: Max. 10 pF for C and D, over 10 pF for J, K, and M.

**Applied to the TDK's standard specification products.


TEMPERATURE RANGE

| Capacitance temperature characteristics | Temperature range* | |
|---|-----------------------|-----------------------|
| | Operating temperature | Storage temperature** |
| | ($^{\circ}$ C) | ($^{\circ}$ C) |
| COG, X7R, X7S, X7T | -55 to +125 | -55 to +125 |

* The maximum operating temperature includes capacitor self-generated heat of up to 20 $^{\circ}$ C.

** The storage temperature range is for after the circuit board is mounted.

- RoHS Directive Compliant Product: See the following for more details. <https://product.tdk.com/info/en/environment/rohs/index.html>
- Halogen-free: indicates that Cl content is less than 900ppm, Br content is less than 900ppm, and that the total Cl and Br content is less than 1500ppm.

 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.

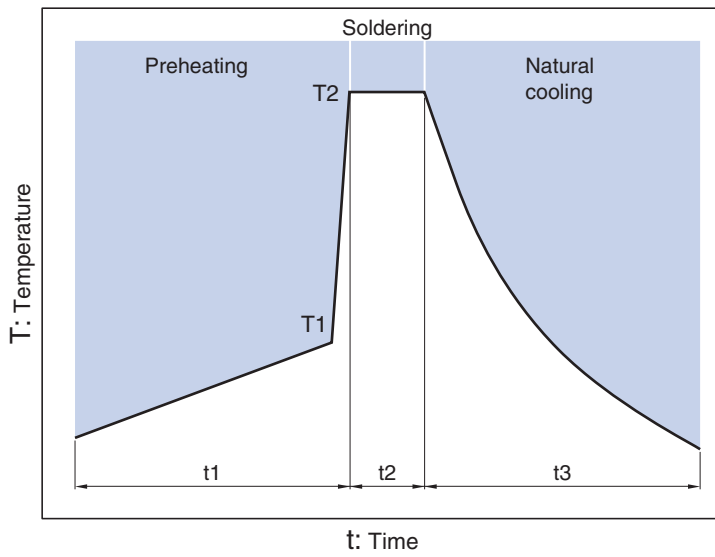
Overview of the FA series

■ PACKAGE QUANTITY

| Type | Package quantity | |
|------|-----------------------|---------------------|
| | Taping (pieces / box) | Bulk (pieces / bag) |
| FA28 | 2000 | 500 |
| FA24 | 2000 | 500 |
| FA26 | 2000 | 500 |
| FA20 | 1500 | 500 |
| FA22 | 1000 | 500 |
| FA23 | 1000 | 200 |
| FA18 | 2000 | 500 |
| FA14 | 2000 | 500 |
| FA16 | 2000 | 500 |
| FA11 | 1500 | 500 |

Overview of the FA series

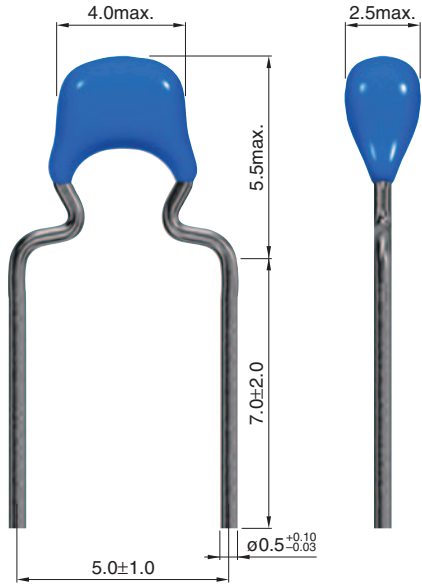
RECOMMENDED FLOW PROFILE



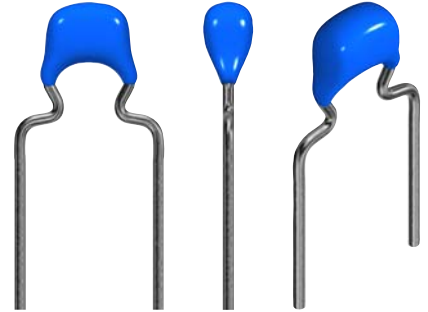
| Preheating | | Peak | | Natural cooling |
|------------|-----------|-------|------------|-----------------|
| Temp. | Time | Temp. | Time | Time |
| T1 | t1 | T2 | t2 | t3 |
| 110°C min. | Over 60s. | 260°C | Within 5s. | Over 60s. |

FA28 type

■ SHAPE & DIMENSIONS



Dimensions in mm



⚠ 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.

FA28 type

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS SPECIFICATION TABLE

CLASS 1 (TEMPERATURE COMPENSATION)

| Temperature characteristics | Capacitance | Tolerance | Rated voltage Edc (V) | Part No.* |
|-----------------------------|-------------|-----------|-----------------------|---------------------|
| C0G | 1.0pF | ±0.25pF | 50 | FA28C0G1H010CNU0□** |
| C0G | 1.5pF | ±0.25pF | 50 | FA28C0G1H1R5CNU0□ |
| C0G | 2.2pF | ±0.25pF | 50 | FA28C0G1H2R2CNU0□ |
| C0G | 3.3pF | ±0.25pF | 50 | FA28C0G1H3R3CNU0□ |
| C0G | 4.7pF | ±0.25pF | 50 | FA28C0G1H4R7CNU0□ |
| C0G | 6.8pF | ±0.5pF | 50 | FA28C0G1H6R8DNU0□ |
| C0G | 10pF | ±0.5pF | 50 | FA28C0G1H100DNU0□ |
| C0G | 15pF | ±5% | 50 | FA28C0G1H150JNU0□ |
| C0G | 22pF | ±5% | 50 | FA28C0G1H220JNU0□ |
| C0G | 33pF | ±5% | 50 | FA28C0G1H330JNU0□ |
| C0G | 47pF | ±5% | 50 | FA28C0G1H470JNU0□ |
| C0G | 68pF | ±5% | 50 | FA28C0G1H680JNU0□ |
| C0G | 100pF | ±5% | 50 | FA28C0G1H101JNU0□ |
| C0G | 120pF | ±5% | 50 | FA28C0G1H121JNU0□ |
| C0G | 150pF | ±5% | 50 | FA28C0G1H151JNU0□ |
| C0G | 180pF | ±5% | 50 | FA28C0G1H181JNU0□ |
| C0G | 220pF | ±5% | 50 | FA28C0G1H221JNU0□ |
| C0G | 270pF | ±5% | 50 | FA28C0G1H271JNU0□ |
| C0G | 330pF | ±5% | 50 | FA28C0G1H331JNU0□ |
| C0G | 390pF | ±5% | 50 | FA28C0G1H391JNU0□ |
| C0G | 470pF | ±5% | 50 | FA28C0G1H471JNU0□ |
| C0G | 560pF | ±5% | 50 | FA28C0G1H561JNU0□ |
| C0G | 680pF | ±5% | 50 | FA28C0G1H681JNU0□ |
| C0G | 820pF | ±5% | 50 | FA28C0G1H821JNU0□ |
| C0G | 1nF | ±5% | 50 | FA28C0G1H102JNU0□ |
| C0G | 1.2nF | ±5% | 50 | FA28C0G1H122JNU0□ |
| C0G | 1.5nF | ±5% | 50 | FA28C0G1H152JNU0□ |
| C0G | 1.8nF | ±5% | 50 | FA28C0G1H182JNU0□ |
| C0G | 2.2nF | ±5% | 50 | FA28C0G1H222JNU0□ |
| C0G | 2.7nF | ±5% | 50 | FA28C0G1H272JNU0□ |
| C0G | 3.3nF | ±5% | 50 | FA28C0G1H332JNU0□ |
| C0G | 3.9nF | ±5% | 50 | FA28C0G1H392JNU0□ |
| C0G | 4.7nF | ±5% | 50 | FA28C0G1H472JNU0□ |
| C0G | 5.6nF | ±5% | 50 | FA28C0G1H562JNU0□ |
| C0G | 6.8nF | ±5% | 50 | FA28C0G1H682JNU0□ |
| C0G | 8.2nF | ±5% | 50 | FA28C0G1H822JNU0□ |
| C0G | 10nF | ±5% | 50 | FA28C0G1H103JNU0□ |
| C0G | 1.0pF | ±0.25pF | 100 | FA28C0G2A010CNU0□ |
| C0G | 1.5pF | ±0.25pF | 100 | FA28C0G2A1R5CNU0□ |
| C0G | 2.2pF | ±0.25pF | 100 | FA28C0G2A2R2CNU0□ |
| C0G | 3.3pF | ±0.25pF | 100 | FA28C0G2A3R3CNU0□ |
| C0G | 4.7pF | ±0.25pF | 100 | FA28C0G2A4R7CNU0□ |
| C0G | 6.8pF | ±0.5pF | 100 | FA28C0G2A6R8DNU0□ |
| C0G | 10pF | ±0.5pF | 100 | FA28C0G2A100DNU0□ |
| C0G | 15pF | ±5% | 100 | FA28C0G2A150JNU0□ |
| C0G | 22pF | ±5% | 100 | FA28C0G2A220JNU0□ |
| C0G | 33pF | ±5% | 100 | FA28C0G2A330JNU0□ |
| C0G | 47pF | ±5% | 100 | FA28C0G2A470JNU0□ |
| C0G | 68pF | ±5% | 100 | FA28C0G2A680JNU0□ |
| C0G | 100pF | ±5% | 100 | FA28C0G2A101JNU0□ |

* The part numbers are TDK's standard specification products.

** The "□" of the Part Number contains the packaging symbol, 0 (Bulk packaging) or 6 (Taping packaging).

FA28 type

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS SPECIFICATION TABLE

CLASS 1 (TEMPERATURE COMPENSATION)

| Temperature characteristics | Capacitance | Tolerance | Rated voltage Edc (V) | Part No.* |
|-----------------------------|-------------|-----------|-----------------------|---------------------|
| C0G | 120pF | ±5% | 100 | FA28C0G2A121JNU0□** |
| C0G | 150pF | ±5% | 100 | FA28C0G2A151JNU0□ |
| C0G | 180pF | ±5% | 100 | FA28C0G2A181JNU0□ |
| C0G | 220pF | ±5% | 100 | FA28C0G2A221JNU0□ |
| C0G | 270pF | ±5% | 100 | FA28C0G2A271JNU0□ |
| C0G | 330pF | ±5% | 100 | FA28C0G2A331JNU0□ |
| C0G | 390pF | ±5% | 100 | FA28C0G2A391JNU0□ |
| C0G | 470pF | ±5% | 100 | FA28C0G2A471JNU0□ |
| C0G | 560pF | ±5% | 100 | FA28C0G2A561JNU0□ |
| C0G | 680pF | ±5% | 100 | FA28C0G2A681JNU0□ |
| C0G | 820pF | ±5% | 100 | FA28C0G2A821JNU0□ |
| C0G | 1nF | ±5% | 100 | FA28C0G2A102JNU0□ |
| C0G | 1.2nF | ±5% | 100 | FA28C0G2A122JNU0□ |
| C0G | 1.5nF | ±5% | 100 | FA28C0G2A152JNU0□ |
| C0G | 1.8nF | ±5% | 100 | FA28C0G2A182JNU0□ |
| C0G | 2.2nF | ±5% | 100 | FA28C0G2A222JNU0□ |
| C0G | 2.7nF | ±5% | 100 | FA28C0G2A272JNU0□ |
| C0G | 3.3nF | ±5% | 100 | FA28C0G2A332JNU0□ |
| C0G | 3.9nF | ±5% | 100 | FA28C0G2A392JRU0□ |
| C0G | 4.7nF | ±5% | 100 | FA28C0G2A472JRU0□ |
| C0G | 5.6nF | ±5% | 100 | FA28C0G2A562JRU0□ |
| C0G | 6.8nF | ±5% | 100 | FA28C0G2A682JRU0□ |
| C0G | 8.2nF | ±5% | 100 | FA28C0G2A822JRU0□ |
| C0G | 10nF | ±5% | 100 | FA28C0G2A103JRU0□ |
| C0G | 100pF | ±5% | 250 | FA28C0G2E101JNU0□ |
| C0G | 120pF | ±5% | 250 | FA28C0G2E121JNU0□ |
| C0G | 150pF | ±5% | 250 | FA28C0G2E151JNU0□ |
| C0G | 180pF | ±5% | 250 | FA28C0G2E181JNU0□ |
| C0G | 220pF | ±5% | 250 | FA28C0G2E221JNU0□ |
| C0G | 270pF | ±5% | 250 | FA28C0G2E271JNU0□ |
| C0G | 330pF | ±5% | 250 | FA28C0G2E331JNU0□ |
| C0G | 390pF | ±5% | 250 | FA28C0G2E391JNU0□ |
| C0G | 470pF | ±5% | 250 | FA28C0G2E471JNU0□ |
| C0G | 560pF | ±5% | 250 | FA28C0G2E561JNU0□ |
| C0G | 680pF | ±5% | 250 | FA28C0G2E681JNU0□ |
| C0G | 820pF | ±5% | 250 | FA28C0G2E821JNU0□ |
| C0G | 1nF | ±5% | 250 | FA28C0G2E102JNU0□ |
| C0G | 1.2nF | ±5% | 250 | FA28C0G2E122JNU0□ |
| C0G | 1.5nF | ±5% | 250 | FA28C0G2E152JNU0□ |
| C0G | 1.8nF | ±5% | 250 | FA28C0G2E182JNU0□ |
| C0G | 2.2nF | ±5% | 250 | FA28C0G2E222JNU0□ |

* The part numbers are TDK's standard specification products.

** The "□" of the Part Number contains the packaging symbol, 0 (Bulk packaging) or 6 (Taping packaging).

FA28 type

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS SPECIFICATION TABLE

CLASS 2 (TEMPERATURE STABLE)

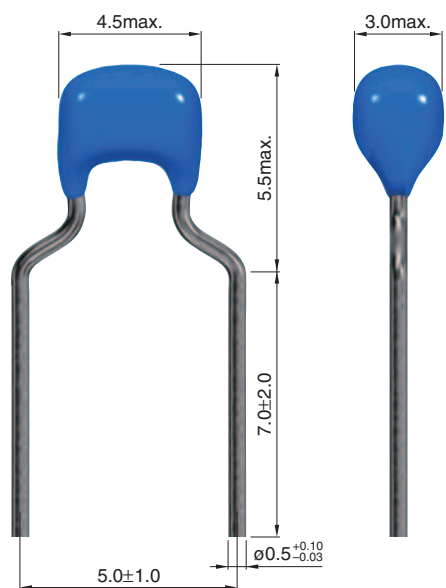
| Temperature characteristics | Capacitance | Tolerance | Rated voltage Edc (V) | Part No.* |
|-----------------------------|-------------|-----------|-----------------------|-------------------|
| X7R | 150nF | ±10% | 25 | FA28X7R1E154KNU0□ |
| X7R | 680nF | ±10% | 25 | FA28X7R1E684KRU0□ |
| X7R | 1uF | ±10% | 25 | FA28X7R1E105KRU0□ |
| X7R | 1nF | ±10% | 50 | FA28X7R1H102KNU0□ |
| X7R | 1.5nF | ±10% | 50 | FA28X7R1H152KNU0□ |
| X7R | 2.2nF | ±10% | 50 | FA28X7R1H222KNU0□ |
| X7R | 3.3nF | ±10% | 50 | FA28X7R1H332KNU0□ |
| X7R | 4.7nF | ±10% | 50 | FA28X7R1H472KNU0□ |
| X7R | 6.8nF | ±10% | 50 | FA28X7R1H682KNU0□ |
| X7R | 10nF | ±10% | 50 | FA28X7R1H103KNU0□ |
| X7R | 15nF | ±10% | 50 | FA28X7R1H153KNU0□ |
| X7R | 22nF | ±10% | 50 | FA28X7R1H223KNU0□ |
| X7R | 33nF | ±10% | 50 | FA28X7R1H333KNU0□ |
| X7R | 47nF | ±10% | 50 | FA28X7R1H473KNU0□ |
| X7R | 68nF | ±10% | 50 | FA28X7R1H683KNU0□ |
| X7R | 100nF | ±10% | 50 | FA28X7R1H104KNU0□ |
| X7R | 150nF | ±10% | 50 | FA28X7R1H154KRU0□ |
| X7R | 220nF | ±10% | 50 | FA28X7R1H224KRU0□ |
| X7R | 330nF | ±10% | 50 | FA28X7R1H334KRU0□ |
| X7R | 470nF | ±10% | 50 | FA28X7R1H474KRU0□ |
| X7R | 1nF | ±10% | 100 | FA28X7R2A102KNU0□ |
| X7R | 1.5nF | ±10% | 100 | FA28X7R2A152KNU0□ |
| X7R | 2.2nF | ±10% | 100 | FA28X7R2A222KNU0□ |
| X7R | 3.3nF | ±10% | 100 | FA28X7R2A332KNU0□ |
| X7R | 4.7nF | ±10% | 100 | FA28X7R2A472KNU0□ |
| X7R | 6.8nF | ±10% | 100 | FA28X7R2A682KNU0□ |
| X7R | 10nF | ±10% | 100 | FA28X7R2A103KNU0□ |
| X7R | 15nF | ±10% | 100 | FA28X7R2A153KNU0□ |
| X7R | 22nF | ±10% | 100 | FA28X7R2A223KNU0□ |
| X7S | 33nF | ±10% | 100 | FA28X7S2A333KRU0□ |
| X7S | 47nF | ±10% | 100 | FA28X7S2A473KRU0□ |
| X7S | 68nF | ±10% | 100 | FA28X7S2A683KRU0□ |
| X7S | 100nF | ±10% | 100 | FA28X7S2A104KRU0□ |

* The part numbers are TDK's standard specification products.

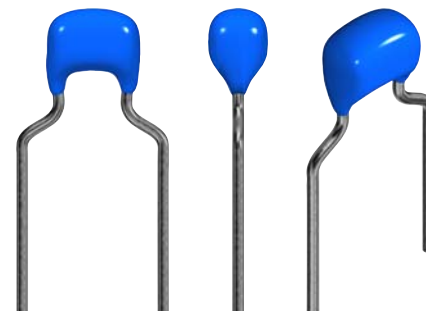
** The "□" of the Part Number contains the packaging symbol, 0 (Bulk packaging) or 6 (Taping packaging).

FA24 type

■ SHAPE & DIMENSIONS



Dimensions in mm



FA24 type

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS SPECIFICATION TABLE

CLASS 1 (TEMPERATURE COMPENSATION)

| Temperature characteristics | Capacitance | Tolerance | Rated voltage Edc (V) | Part No.* |
|-----------------------------|-------------|-----------|-----------------------|---------------------|
| C0G | 15nF | ±5% | 50 | FA24C0G1H153JNU0□** |
| C0G | 22nF | ±5% | 50 | FA24C0G1H223JNU0□ |
| C0G | 33nF | ±5% | 50 | FA24C0G1H333JNU0□ |
| C0G | 3.9nF | ±5% | 100 | FA24C0G2A392JNU0□ |
| C0G | 4.7nF | ±5% | 100 | FA24C0G2A472JNU0□ |
| C0G | 5.6nF | ±5% | 100 | FA24C0G2A562JNU0□ |
| C0G | 6.8nF | ±5% | 100 | FA24C0G2A682JNU0□ |
| C0G | 8.2nF | ±5% | 100 | FA24C0G2A822JNU0□ |
| C0G | 10nF | ±5% | 100 | FA24C0G2A103JNU0□ |
| C0G | 15nF | ±5% | 100 | FA24C0G2A153JRU0□ |
| C0G | 22nF | ±5% | 100 | FA24C0G2A223JRU0□ |
| C0G | 33nF | ±5% | 100 | FA24C0G2A333JRU0□ |
| C0G | 2.7nF | ±5% | 250 | FA24C0G2E272JNU0□ |
| C0G | 3.3nF | ±5% | 250 | FA24C0G2E332JNU0□ |
| C0G | 3.9nF | ±5% | 250 | FA24C0G2E392JNU0□ |
| C0G | 4.7nF | ±5% | 250 | FA24C0G2E472JNU0□ |
| C0G | 5.6nF | ±5% | 250 | FA24C0G2E562JNU0□ |
| C0G | 6.8nF | ±5% | 250 | FA24C0G2E682JNU0□ |
| C0G | 8.2nF | ±5% | 250 | FA24C0G2E822JNU0□ |
| C0G | 10nF | ±5% | 250 | FA24C0G2E103JNU0□ |
| C0G | 100pF | ±5% | 450 | FA24C0G2W101JNU0□ |
| C0G | 120pF | ±5% | 450 | FA24C0G2W121JNU0□ |
| C0G | 150pF | ±5% | 450 | FA24C0G2W151JNU0□ |
| C0G | 180pF | ±5% | 450 | FA24C0G2W181JNU0□ |
| C0G | 220pF | ±5% | 450 | FA24C0G2W221JNU0□ |
| C0G | 270pF | ±5% | 450 | FA24C0G2W271JNU0□ |
| C0G | 330pF | ±5% | 450 | FA24C0G2W331JNU0□ |
| C0G | 390pF | ±5% | 450 | FA24C0G2W391JNU0□ |
| C0G | 470pF | ±5% | 450 | FA24C0G2W471JNU0□ |
| C0G | 560pF | ±5% | 450 | FA24C0G2W561JNU0□ |
| C0G | 680pF | ±5% | 450 | FA24C0G2W681JNU0□ |
| C0G | 820pF | ±5% | 450 | FA24C0G2W821JNU0□ |
| C0G | 1nF | ±5% | 450 | FA24C0G2W102JNU0□ |
| C0G | 1.2nF | ±5% | 450 | FA24C0G2W122JNU0□ |
| C0G | 1.5nF | ±5% | 450 | FA24C0G2W152JNU0□ |
| C0G | 1.8nF | ±5% | 450 | FA24C0G2W182JNU0□ |
| C0G | 2.2nF | ±5% | 450 | FA24C0G2W222JNU0□ |
| C0G | 2.7nF | ±5% | 450 | FA24C0G2W272JNU0□ |
| C0G | 3.3nF | ±5% | 450 | FA24C0G2W332JNU0□ |
| C0G | 3.9nF | ±5% | 450 | FA24C0G2W392JNU0□ |
| C0G | 4.7nF | ±5% | 450 | FA24C0G2W472JNU0□ |
| C0G | 5.6nF | ±5% | 450 | FA24C0G2W562JNU0□ |

* The part numbers are TDK's standard specification products.

** The "□" of the Part Number contains the packaging symbol, 0 (Bulk packaging) or 6 (Taping packaging).

FA24 type

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS SPECIFICATION TABLE

CLASS 2 (TEMPERATURE STABLE)

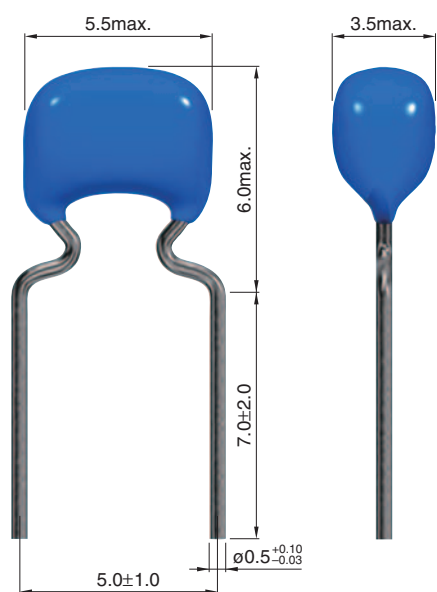
| Temperature characteristics | Capacitance | Tolerance | Rated voltage Edc (V) | Part No.* |
|-----------------------------|-------------|-----------|-----------------------|-------------------|
| X7R | 470nF | ±10% | 25 | FA24X7R1E474KNU0□ |
| X7R | 3.3uF | ±10% | 25 | FA24X7R1E335KRU0□ |
| X7R | 4.7uF | ±10% | 25 | FA24X7R1E475KRU0□ |
| X7R | 150nF | ±10% | 50 | FA24X7R1H154KNU0□ |
| X7R | 220nF | ±10% | 50 | FA24X7R1H224KNU0□ |
| X7R | 330nF | ±10% | 50 | FA24X7R1H334KNU0□ |
| X7R | 680nF | ±10% | 50 | FA24X7R1H684KRU0□ |
| X7R | 1uF | ±10% | 50 | FA24X7R1H105KRU0□ |
| X7R | 1.5uF | ±10% | 50 | FA24X7R1H155KRU0□ |
| X7R | 2.2uF | ±10% | 50 | FA24X7R1H225KRU0□ |
| X7R | 33nF | ±10% | 100 | FA24X7R2A333KNU0□ |
| X7R | 47nF | ±10% | 100 | FA24X7R2A473KNU0□ |
| X7R | 68nF | ±10% | 100 | FA24X7R2A683KNU0□ |
| X7R | 100nF | ±10% | 100 | FA24X7R2A104KNU0□ |
| X7R | 1nF | ±10% | 250 | FA24X7R2E102KNU0□ |
| X7R | 1.5nF | ±10% | 250 | FA24X7R2E152KNU0□ |
| X7R | 2.2nF | ±10% | 250 | FA24X7R2E222KNU0□ |
| X7R | 3.3nF | ±10% | 250 | FA24X7R2E332KNU0□ |
| X7R | 4.7nF | ±10% | 250 | FA24X7R2E472KNU0□ |
| X7R | 6.8nF | ±10% | 250 | FA24X7R2E682KNU0□ |
| X7R | 10nF | ±10% | 250 | FA24X7R2E103KNU0□ |
| X7R | 15nF | ±10% | 250 | FA24X7R2E153KNU0□ |
| X7R | 22nF | ±10% | 250 | FA24X7R2E223KNU0□ |
| X7S | 150nF | ±10% | 100 | FA24X7S2A154KRU0□ |
| X7S | 220nF | ±10% | 100 | FA24X7S2A224KRU0□ |
| X7S | 330nF | ±10% | 100 | FA24X7S2A334KRU0□ |
| X7S | 470nF | ±10% | 100 | FA24X7S2A474KRU0□ |
| X7S | 680nF | ±10% | 100 | FA24X7S2A684KRU0□ |
| X7S | 1uF | ±10% | 100 | FA24X7S2A105KRU0□ |
| X7T | 33nF | ±10% | 250 | FA24X7T2E333KNU0□ |
| X7T | 47nF | ±10% | 250 | FA24X7T2E473KNU0□ |
| X7T | 68nF | ±10% | 250 | FA24X7T2E683KNU0□ |
| X7T | 100nF | ±10% | 250 | FA24X7T2E104KNU0□ |

* The part numbers are TDK's standard specification products.

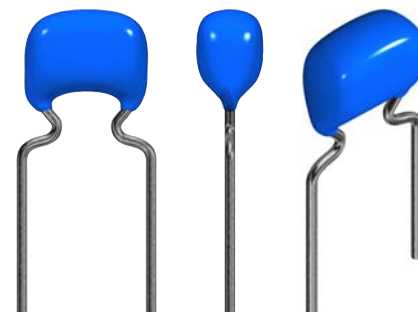
** The "□" of the Part Number contains the packaging symbol, 0 (Bulk packaging) or 6 (Taping packaging).

FA26 type

■ SHAPE & DIMENSIONS



Dimensions in mm



FA26 type

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS SPECIFICATION TABLE

CLASS 1 (TEMPERATURE COMPENSATION)

| Temperature characteristics | Capacitance | Tolerance | Rated voltage Edc (V) | Part No.* |
|-----------------------------|-------------|-----------|-----------------------|---------------------|
| C0G | 47nF | ±5% | 50 | FA26C0G1H473JNU0□** |
| C0G | 68nF | ±5% | 50 | FA26C0G1H683JNU0□ |
| C0G | 100nF | ±5% | 50 | FA26C0G1H104JNU0□ |
| C0G | 15nF | ±5% | 100 | FA26C0G2A153JNU0□ |
| C0G | 22nF | ±5% | 100 | FA26C0G2A223JNU0□ |
| C0G | 33nF | ±5% | 100 | FA26C0G2A333JNU0□ |
| C0G | 47nF | ±5% | 100 | FA26C0G2A473JRU0□ |
| C0G | 68nF | ±5% | 100 | FA26C0G2A683JRU0□ |
| C0G | 100nF | ±5% | 100 | FA26C0G2A104JRU0□ |
| C0G | 15nF | ±5% | 250 | FA26C0G2E153JNU0□ |
| C0G | 22nF | ±5% | 250 | FA26C0G2E223JNU0□ |
| C0G | 6.8nF | ±5% | 450 | FA26C0G2W682JNU0□ |
| C0G | 8.2nF | ±5% | 450 | FA26C0G2W822JNU0□ |
| C0G | 10nF | ±5% | 450 | FA26C0G2W103JNU0□ |
| C0G | 15nF | ±5% | 450 | FA26C0G2W153JNU0□ |
| C0G | 100pF | ±5% | 630 | FA26C0G2J101JNU0□ |
| C0G | 120pF | ±5% | 630 | FA26C0G2J121JNU0□ |
| C0G | 150pF | ±5% | 630 | FA26C0G2J151JNU0□ |
| C0G | 180pF | ±5% | 630 | FA26C0G2J181JNU0□ |
| C0G | 220pF | ±5% | 630 | FA26C0G2J221JNU0□ |
| C0G | 270pF | ±5% | 630 | FA26C0G2J271JNU0□ |
| C0G | 330pF | ±5% | 630 | FA26C0G2J331JNU0□ |
| C0G | 390pF | ±5% | 630 | FA26C0G2J391JNU0□ |
| C0G | 470pF | ±5% | 630 | FA26C0G2J471JNU0□ |
| C0G | 560pF | ±5% | 630 | FA26C0G2J561JNU0□ |
| C0G | 680pF | ±5% | 630 | FA26C0G2J681JNU0□ |
| C0G | 820pF | ±5% | 630 | FA26C0G2J821JNU0□ |
| C0G | 1nF | ±5% | 630 | FA26C0G2J102JNU0□ |
| C0G | 1.2nF | ±5% | 630 | FA26C0G2J122JNU0□ |
| C0G | 1.5nF | ±5% | 630 | FA26C0G2J152JNU0□ |
| C0G | 1.8nF | ±5% | 630 | FA26C0G2J182JNU0□ |
| C0G | 2.2nF | ±5% | 630 | FA26C0G2J222JNU0□ |
| C0G | 2.7nF | ±5% | 630 | FA26C0G2J272JNU0□ |
| C0G | 3.3nF | ±5% | 630 | FA26C0G2J332JNU0□ |
| C0G | 3.9nF | ±5% | 630 | FA26C0G2J392JNU0□ |
| C0G | 4.7nF | ±5% | 630 | FA26C0G2J472JNU0□ |
| C0G | 5.6nF | ±5% | 630 | FA26C0G2J562JNU0□ |
| C0G | 6.8nF | ±5% | 630 | FA26C0G2J682JNU0□ |
| C0G | 8.2nF | ±5% | 630 | FA26C0G2J822JNU0□ |
| C0G | 10nF | ±5% | 630 | FA26C0G2J103JNU0□ |

* The part numbers are TDK's standard specification products.

** The "□" of the Part Number contains the packaging symbol, 0 (Bulk packaging) or 6 (Taping packaging).

FA26 type

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS SPECIFICATION TABLE

CLASS 2 (TEMPERATURE STABLE)

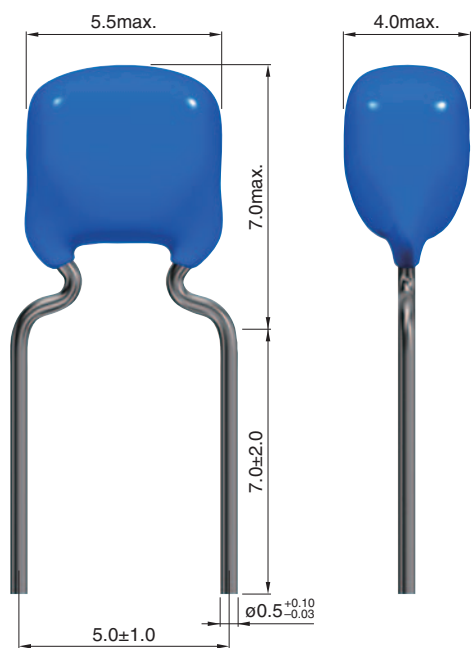
| Temperature characteristics | Capacitance | Tolerance | Rated voltage Edc (V) | Part No.* |
|-----------------------------|-------------|-----------|-----------------------|---------------------|
| X7R | 1uF | ±10% | 25 | FA26X7R1E105KNU0□** |
| X7R | 1.5uF | ±10% | 25 | FA26X7R1E155KNU0□ |
| X7R | 2.2uF | ±10% | 25 | FA26X7R1E225KNU0□ |
| X7R | 6.8uF | ±10% | 25 | FA26X7R1E685KRU0□ |
| X7R | 10uF | ±10% | 25 | FA26X7R1E106KRU0□ |
| X7R | 470nF | ±10% | 50 | FA26X7R1H474KNU0□ |
| X7R | 680nF | ±10% | 50 | FA26X7R1H684KNU0□ |
| X7R | 3.3uF | ±10% | 50 | FA26X7R1H335KRU0□ |
| X7R | 4.7uF | ±10% | 50 | FA26X7R1H475KRU0□ |
| X7R | 150nF | ±10% | 100 | FA26X7R2A154KNU0□ |
| X7R | 220nF | ±10% | 100 | FA26X7R2A224KNU0□ |
| X7R | 330nF | ±10% | 100 | FA26X7R2A334KNU0□ |
| X7R | 470nF | ±10% | 100 | FA26X7R2A474KNU0□ |
| X7R | 680nF | ±10% | 100 | FA26X7R2A684KNU0□ |
| X7R | 1uF | ±10% | 100 | FA26X7R2A105KNU0□ |
| X7R | 33nF | ±10% | 250 | FA26X7R2E333KNU0□ |
| X7R | 47nF | ±10% | 250 | FA26X7R2E473KNU0□ |
| X7R | 68nF | ±10% | 250 | FA26X7R2E683KNU0□ |
| X7R | 100nF | ±10% | 250 | FA26X7R2E104KNU0□ |
| X7R | 1nF | ±10% | 630 | FA26X7R2J102KNU0□ |
| X7R | 1.5nF | ±10% | 630 | FA26X7R2J152KNU0□ |
| X7R | 2.2nF | ±10% | 630 | FA26X7R2J222KNU0□ |
| X7R | 3.3nF | ±10% | 630 | FA26X7R2J332KNU0□ |
| X7R | 4.7nF | ±10% | 630 | FA26X7R2J472KNU0□ |
| X7R | 6.8nF | ±10% | 630 | FA26X7R2J682KNU0□ |
| X7R | 10nF | ±10% | 630 | FA26X7R2J103KNU0□ |
| X7R | 15nF | ±10% | 630 | FA26X7R2J153KNU0□ |
| X7R | 22nF | ±10% | 630 | FA26X7R2J223KNU0□ |
| X7R | 33nF | ±10% | 630 | FA26X7R2J333KNU0□ |
| X7S | 1.5uF | ±10% | 100 | FA26X7S2A155KRU0□ |
| X7S | 2.2uF | ±10% | 100 | FA26X7S2A225KRU0□ |
| X7S | 3.3uF | ±10% | 100 | FA26X7S2A335KRU0□ |
| X7T | 150nF | ±10% | 250 | FA26X7T2E154KNU0□ |
| X7T | 220nF | ±10% | 250 | FA26X7T2E224KNU0□ |

* The part numbers are TDK's standard specification products.

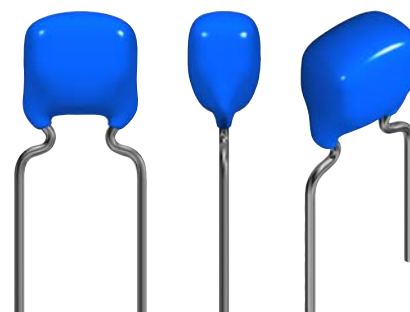
** The "□" of the Part Number contains the packaging symbol, 0 (Bulk packaging) or 6 (Taping packaging).

FA20 type

■ SHAPE & DIMENSIONS



Dimensions in mm



FA20 type

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS SPECIFICATION TABLE

CLASS 1 (TEMPERATURE COMPENSATION)

| Temperature characteristics | Capacitance | Tolerance | Rated voltage Edc (V) | Part No.* |
|-----------------------------|-------------|-----------|-----------------------|---------------------|
| C0G | 47nF | ±5% | 100 | FA20C0G2A473JNU0□** |
| C0G | 68nF | ±5% | 100 | FA20C0G2A683JNU0□ |
| C0G | 33nF | ±5% | 250 | FA20C0G2E333JNU0□ |
| C0G | 47nF | ±5% | 250 | FA20C0G2E473JNU0□ |
| C0G | 22nF | ±5% | 450 | FA20C0G2W223JNU0□ |
| C0G | 33nF | ±5% | 450 | FA20C0G2W333JNU0□ |
| C0G | 15nF | ±5% | 630 | FA20C0G2J153JNU0□ |
| C0G | 22nF | ±5% | 630 | FA20C0G2J223JNU0□ |
| C0G | 33nF | ±5% | 630 | FA20C0G2J333JNU0□ |

* The part numbers are TDK's standard specification products.

** The "□" of the Part Number contains the packaging symbol, 0 (Bulk packaging) or 6 (Taping packaging).

CLASS 2 (TEMPERATURE STABLE)

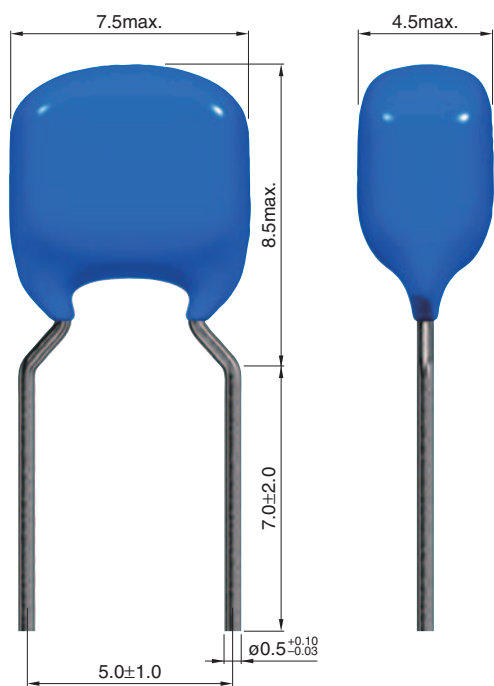
| Temperature characteristics | Capacitance | Tolerance | Rated voltage Edc (V) | Part No.* |
|-----------------------------|-------------|-----------|-----------------------|---------------------|
| X7R | 3.3uF | ±10% | 25 | FA20X7R1E335KNU0□** |
| X7R | 4.7uF | ±10% | 25 | FA20X7R1E475KNU0□ |
| X7R | 1uF | ±10% | 50 | FA20X7R1H105KNU0□ |
| X7R | 1.5uF | ±10% | 50 | FA20X7R1H155KNU0□ |
| X7R | 1.5uF | ±10% | 100 | FA20X7R2A155KRU0□ |
| X7R | 2.2uF | ±10% | 100 | FA20X7R2A225KRU0□ |
| X7R | 150nF | ±10% | 250 | FA20X7R2E154KNU0□ |
| X7R | 220nF | ±10% | 250 | FA20X7R2E224KNU0□ |
| X7R | 47nF | ±10% | 630 | FA20X7R2J473KNU0□ |
| X7R | 68nF | ±10% | 630 | FA20X7R2J683KNU0□ |
| X7S | 6.8uF | ±10% | 50 | FA20X7S1H685KRU0□ |
| X7S | 10uF | ±10% | 50 | FA20X7S1H106KRU0□ |
| X7S | 4.7uF | ±10% | 100 | FA20X7S2A475KRU0□ |
| X7T | 330nF | ±10% | 250 | FA20X7T2E334KNU0□ |

* The part numbers are TDK's standard specification products.

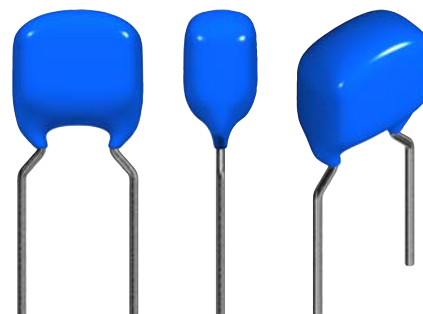
** The "□" of the Part Number contains the packaging symbol, 0 (Bulk packaging) or 6 (Taping packaging).

FA22 type

■ SHAPE & DIMENSIONS



Dimensions in mm



FA22 type

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS SPECIFICATION TABLE

CLASS 1 (TEMPERATURE COMPENSATION)

| Temperature characteristics | Capacitance | Tolerance | Rated voltage Edc (V) | Part No.* |
|-----------------------------|-------------|-----------|-----------------------|---------------------|
| C0G | 150nF | ±5% | 50 | FA22C0G1H154JNU0□** |
| C0G | 220nF | ±5% | 50 | FA22C0G1H224JNU0□ |
| C0G | 100nF | ±5% | 100 | FA22C0G2A104JNU0□ |
| C0G | 68nF | ±5% | 250 | FA22C0G2E683JRU0□ |
| C0G | 100nF | ±5% | 250 | FA22C0G2E104JRU0□ |
| C0G | 47nF | ±5% | 450 | FA22C0G2W473JNU0□ |
| C0G | 68nF | ±5% | 450 | FA22C0G2W683JNU0□ |
| C0G | 47nF | ±5% | 630 | FA22C0G2J473JNU0□ |

* The part numbers are TDK's standard specification products.

** The "□" of the Part Number contains the packaging symbol, 0 (Bulk packaging) or 6 (Taping packaging).

CLASS 2 (TEMPERATURE STABLE)

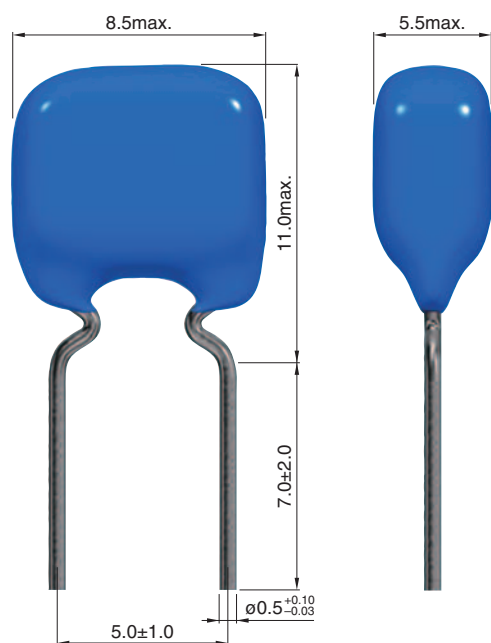
| Temperature characteristics | Capacitance | Tolerance | Rated voltage Edc (V) | Part No.* |
|-----------------------------|-------------|-----------|-----------------------|---------------------|
| X7R | 10uF | ±10% | 25 | FA22X7R1E106KNU0□** |
| X7R | 15uF | ±20% | 25 | FA22X7R1E156MRU0□ |
| X7R | 22uF | ±20% | 25 | FA22X7R1E226MRU0□ |
| X7R | 2.2uF | ±10% | 50 | FA22X7R1H225KNU0□ |
| X7R | 3.3uF | ±10% | 50 | FA22X7R1H335KNU0□ |
| X7R | 4.7uF | ±10% | 50 | FA22X7R1H475KRU0□ |
| X7R | 6.8uF | ±10% | 50 | FA22X7R1H685KRU0□ |
| X7R | 1.5uF | ±10% | 100 | FA22X7R2A155KNU0□ |
| X7R | 2.2uF | ±10% | 100 | FA22X7R2A225KNU0□ |
| X7R | 330nF | ±10% | 250 | FA22X7R2E334KNU0□ |
| X7R | 470nF | ±10% | 250 | FA22X7R2E474KNU0□ |
| X7R | 100nF | ±10% | 630 | FA22X7R2J104KNU0□ |
| X7T | 680nF | ±10% | 250 | FA22X7T2E684KNU0□ |
| X7T | 1uF | ±10% | 250 | FA22X7T2E105KNU0□ |

* The part numbers are TDK's standard specification products.

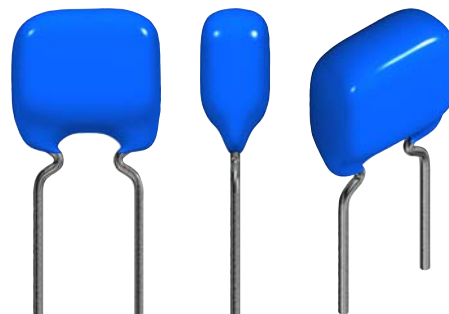
** The "□" of the Part Number contains the packaging symbol, 0 (Bulk packaging) or 6 (Taping packaging).

FA23 type

■ SHAPE & DIMENSIONS



Dimensions in mm



FA23 type

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS SPECIFICATION TABLE

CLASS 1 (TEMPERATURE COMPENSATION)

| Temperature characteristics | Capacitance | Tolerance | Rated voltage Edc (V) | Part No.* |
|-----------------------------|-------------|-----------|-----------------------|---------------------|
| C0G | 150nF | ±5% | 100 | FA23C0G2A154JNU0□** |
| C0G | 150nF | ±5% | 250 | FA23C0G2E154JRU0□ |
| C0G | 100nF | ±5% | 450 | FA23C0G2W104JNU0□ |
| C0G | 68nF | ±5% | 630 | FA23C0G2J683JRU0□ |
| C0G | 100nF | ±5% | 630 | FA23C0G2J104JRU0□ |

* The part numbers are TDK's standard specification products.

** The "□" of the Part Number contains the packaging symbol, 0 (Bulk packaging) or 6 (Taping packaging).

CLASS 2 (TEMPERATURE STABLE)

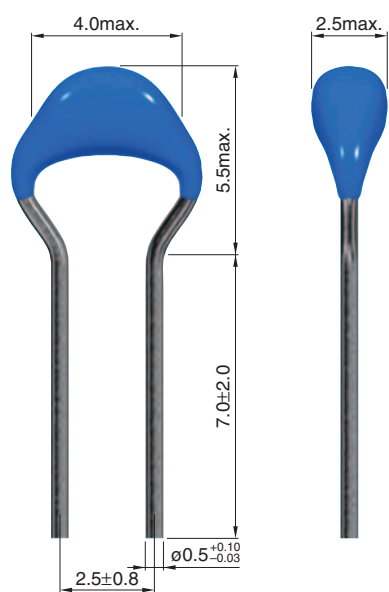
| Temperature characteristics | Capacitance | Tolerance | Rated voltage Edc (V) | Part No.* |
|-----------------------------|-------------|-----------|-----------------------|---------------------|
| X7R | 22μF | ±20% | 25 | FA23X7R1E226MNU0□** |
| X7R | 10μF | ±10% | 50 | FA23X7R1H106KRU0□ |
| X7R | 3.3μF | ±10% | 100 | FA23X7R2A335KNU0□ |
| X7R | 4.7μF | ±10% | 100 | FA23X7R2A475KNU0□ |
| X7R | 680nF | ±10% | 250 | FA23X7R2E684KNU0□ |
| X7R | 1μF | ±10% | 250 | FA23X7R2E105KNU0□ |
| X7R | 150nF | ±10% | 630 | FA23X7R2J154KNU0□ |
| X7R | 220nF | ±10% | 630 | FA23X7R2J224KNU0□ |
| X7S | 6.8μF | ±10% | 100 | FA23X7S2A685KRU0□ |
| X7S | 10μF | ±10% | 100 | FA23X7S2A106KRU0□ |
| X7S | 15μF | ±20% | 100 | FA23X7S2A156MRU0□ |
| X7T | 1.5μF | ±10% | 250 | FA23X7T2E155KNU0□ |
| X7T | 2.2μF | ±10% | 250 | FA23X7T2E225KNU0□ |

* The part numbers are TDK's standard specification products.

** The "□" of the Part Number contains the packaging symbol, 0 (Bulk packaging) or 6 (Taping packaging).

FA18 type

■ SHAPE & DIMENSIONS



Dimensions in mm



FA18 type

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS SPECIFICATION TABLE

CLASS 1 (TEMPERATURE COMPENSATION)

| Temperature characteristics | Capacitance | Tolerance | Rated voltage Edc (V) | Part No.* |
|-----------------------------|-------------|-----------|-----------------------|---------------------|
| C0G | 1.0pF | ±0.25pF | 50 | FA18C0G1H010CNU0□** |
| C0G | 1.5pF | ±0.25pF | 50 | FA18C0G1H1R5CNU0□ |
| C0G | 2.2pF | ±0.25pF | 50 | FA18C0G1H2R2CNU0□ |
| C0G | 3.3pF | ±0.25pF | 50 | FA18C0G1H3R3CNU0□ |
| C0G | 4.7pF | ±0.25pF | 50 | FA18C0G1H4R7CNU0□ |
| C0G | 6.8pF | ±0.5pF | 50 | FA18C0G1H6R8DNU0□ |
| C0G | 10pF | ±0.5pF | 50 | FA18C0G1H100DNU0□ |
| C0G | 15pF | ±5% | 50 | FA18C0G1H150JNU0□ |
| C0G | 22pF | ±5% | 50 | FA18C0G1H220JNU0□ |
| C0G | 33pF | ±5% | 50 | FA18C0G1H330JNU0□ |
| C0G | 47pF | ±5% | 50 | FA18C0G1H470JNU0□ |
| C0G | 68pF | ±5% | 50 | FA18C0G1H680JNU0□ |
| C0G | 100pF | ±5% | 50 | FA18C0G1H101JNU0□ |
| C0G | 120pF | ±5% | 50 | FA18C0G1H121JNU0□ |
| C0G | 150pF | ±5% | 50 | FA18C0G1H151JNU0□ |
| C0G | 180pF | ±5% | 50 | FA18C0G1H181JNU0□ |
| C0G | 220pF | ±5% | 50 | FA18C0G1H221JNU0□ |
| C0G | 270pF | ±5% | 50 | FA18C0G1H271JNU0□ |
| C0G | 330pF | ±5% | 50 | FA18C0G1H331JNU0□ |
| C0G | 390pF | ±5% | 50 | FA18C0G1H391JNU0□ |
| C0G | 470pF | ±5% | 50 | FA18C0G1H471JNU0□ |
| C0G | 560pF | ±5% | 50 | FA18C0G1H561JNU0□ |
| C0G | 680pF | ±5% | 50 | FA18C0G1H681JNU0□ |
| C0G | 820pF | ±5% | 50 | FA18C0G1H821JNU0□ |
| C0G | 1nF | ±5% | 50 | FA18C0G1H102JNU0□ |
| C0G | 1.2nF | ±5% | 50 | FA18C0G1H122JNU0□ |
| C0G | 1.5nF | ±5% | 50 | FA18C0G1H152JNU0□ |
| C0G | 1.8nF | ±5% | 50 | FA18C0G1H182JNU0□ |
| C0G | 2.2nF | ±5% | 50 | FA18C0G1H222JNU0□ |
| C0G | 2.7nF | ±5% | 50 | FA18C0G1H272JNU0□ |
| C0G | 3.3nF | ±5% | 50 | FA18C0G1H332JNU0□ |
| C0G | 3.9nF | ±5% | 50 | FA18C0G1H392JNU0□ |
| C0G | 4.7nF | ±5% | 50 | FA18C0G1H472JNU0□ |
| C0G | 5.6nF | ±5% | 50 | FA18C0G1H562JNU0□ |
| C0G | 6.8nF | ±5% | 50 | FA18C0G1H682JNU0□ |
| C0G | 8.2nF | ±5% | 50 | FA18C0G1H822JNU0□ |
| C0G | 10nF | ±5% | 50 | FA18C0G1H103JNU0□ |
| C0G | 1.0pF | ±0.25pF | 100 | FA18C0G2A010CNU0□ |
| C0G | 1.5pF | ±0.25pF | 100 | FA18C0G2A1R5CNU0□ |
| C0G | 2.2pF | ±0.25pF | 100 | FA18C0G2A2R2CNU0□ |
| C0G | 3.3pF | ±0.25pF | 100 | FA18C0G2A3R3CNU0□ |
| C0G | 4.7pF | ±0.25pF | 100 | FA18C0G2A4R7CNU0□ |
| C0G | 6.8pF | ±0.5pF | 100 | FA18C0G2A6R8DNU0□ |
| C0G | 10pF | ±0.5pF | 100 | FA18C0G2A100DNU0□ |
| C0G | 15pF | ±5% | 100 | FA18C0G2A150JNU0□ |
| C0G | 22pF | ±5% | 100 | FA18C0G2A220JNU0□ |
| C0G | 33pF | ±5% | 100 | FA18C0G2A330JNU0□ |
| C0G | 47pF | ±5% | 100 | FA18C0G2A470JNU0□ |
| C0G | 68pF | ±5% | 100 | FA18C0G2A680JNU0□ |
| C0G | 100pF | ±5% | 100 | FA18C0G2A101JNU0□ |

* The part numbers are TDK's standard specification products.

** The "□" of the Part Number contains the packaging symbol, 0 (Bulk packaging) or 6 (Taping packaging).

FA18 type

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS SPECIFICATION TABLE

CLASS 1 (TEMPERATURE COMPENSATION)

| Temperature characteristics | Capacitance | Tolerance | Rated voltage Edc (V) | Part No.* |
|-----------------------------|-------------|-----------|-----------------------|---------------------|
| C0G | 120pF | ±5% | 100 | FA18C0G2A121JNU0□** |
| C0G | 150pF | ±5% | 100 | FA18C0G2A151JNU0□ |
| C0G | 180pF | ±5% | 100 | FA18C0G2A181JNU0□ |
| C0G | 220pF | ±5% | 100 | FA18C0G2A221JNU0□ |
| C0G | 270pF | ±5% | 100 | FA18C0G2A271JNU0□ |
| C0G | 330pF | ±5% | 100 | FA18C0G2A331JNU0□ |
| C0G | 390pF | ±5% | 100 | FA18C0G2A391JNU0□ |
| C0G | 470pF | ±5% | 100 | FA18C0G2A471JNU0□ |
| C0G | 560pF | ±5% | 100 | FA18C0G2A561JNU0□ |
| C0G | 680pF | ±5% | 100 | FA18C0G2A681JNU0□ |
| C0G | 820pF | ±5% | 100 | FA18C0G2A821JNU0□ |
| C0G | 1nF | ±5% | 100 | FA18C0G2A102JNU0□ |
| C0G | 1.2nF | ±5% | 100 | FA18C0G2A122JNU0□ |
| C0G | 1.5nF | ±5% | 100 | FA18C0G2A152JNU0□ |
| C0G | 1.8nF | ±5% | 100 | FA18C0G2A182JNU0□ |
| C0G | 2.2nF | ±5% | 100 | FA18C0G2A222JNU0□ |
| C0G | 2.7nF | ±5% | 100 | FA18C0G2A272JNU0□ |
| C0G | 3.3nF | ±5% | 100 | FA18C0G2A332JNU0□ |
| C0G | 3.9nF | ±5% | 100 | FA18C0G2A392JRU0□ |
| C0G | 4.7nF | ±5% | 100 | FA18C0G2A472JRU0□ |
| C0G | 5.6nF | ±5% | 100 | FA18C0G2A562JRU0□ |
| C0G | 6.8nF | ±5% | 100 | FA18C0G2A682JRU0□ |
| C0G | 8.2nF | ±5% | 100 | FA18C0G2A822JRU0□ |
| C0G | 10nF | ±5% | 100 | FA18C0G2A103JRU0□ |

* The part numbers are TDK's standard specification products.

** The "□" of the Part Number contains the packaging symbol, 0 (Bulk packaging) or 6 (Taping packaging).

FA18 type

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS SPECIFICATION TABLE

CLASS 2 (TEMPERATURE STABLE)

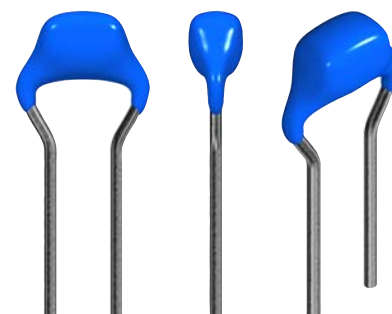
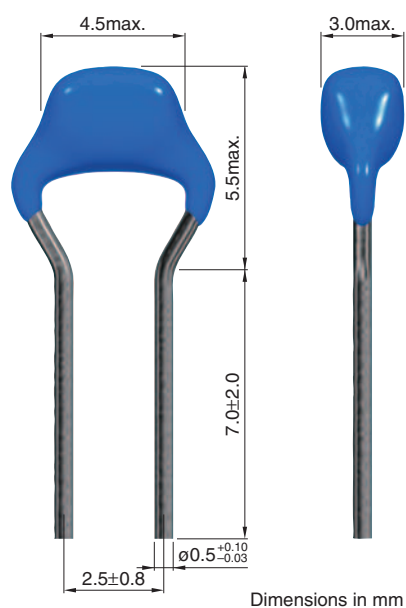
| Temperature characteristics | Capacitance | Tolerance | Rated voltage Edc (V) | Part No.* |
|-----------------------------|-------------|-----------|-----------------------|---------------------|
| X7R | 150nF | ±10% | 25 | FA18X7R1E154KNU0□** |
| X7R | 680nF | ±10% | 25 | FA18X7R1E684KRU0□ |
| X7R | 1µF | ±10% | 25 | FA18X7R1E105KRU0□ |
| X7R | 1nF | ±10% | 50 | FA18X7R1H102KNU0□ |
| X7R | 1.5nF | ±10% | 50 | FA18X7R1H152KNU0□ |
| X7R | 2.2nF | ±10% | 50 | FA18X7R1H222KNU0□ |
| X7R | 3.3nF | ±10% | 50 | FA18X7R1H332KNU0□ |
| X7R | 4.7nF | ±10% | 50 | FA18X7R1H472KNU0□ |
| X7R | 6.8nF | ±10% | 50 | FA18X7R1H682KNU0□ |
| X7R | 10nF | ±10% | 50 | FA18X7R1H103KNU0□ |
| X7R | 15nF | ±10% | 50 | FA18X7R1H153KNU0□ |
| X7R | 22nF | ±10% | 50 | FA18X7R1H223KNU0□ |
| X7R | 33nF | ±10% | 50 | FA18X7R1H333KNU0□ |
| X7R | 47nF | ±10% | 50 | FA18X7R1H473KNU0□ |
| X7R | 68nF | ±10% | 50 | FA18X7R1H683KNU0□ |
| X7R | 100nF | ±10% | 50 | FA18X7R1H104KNU0□ |
| X7R | 150nF | ±10% | 50 | FA18X7R1H154KRU0□ |
| X7R | 220nF | ±10% | 50 | FA18X7R1H224KRU0□ |
| X7R | 330nF | ±10% | 50 | FA18X7R1H334KRU0□ |
| X7R | 470nF | ±10% | 50 | FA18X7R1H474KRU0□ |
| X7R | 1nF | ±10% | 100 | FA18X7R2A102KNU0□ |
| X7R | 1.5nF | ±10% | 100 | FA18X7R2A152KNU0□ |
| X7R | 2.2nF | ±10% | 100 | FA18X7R2A222KNU0□ |
| X7R | 3.3nF | ±10% | 100 | FA18X7R2A332KNU0□ |
| X7R | 4.7nF | ±10% | 100 | FA18X7R2A472KNU0□ |
| X7R | 6.8nF | ±10% | 100 | FA18X7R2A682KNU0□ |
| X7R | 10nF | ±10% | 100 | FA18X7R2A103KNU0□ |
| X7R | 15nF | ±10% | 100 | FA18X7R2A153KNU0□ |
| X7R | 22nF | ±10% | 100 | FA18X7R2A223KNU0□ |
| X7S | 33nF | ±10% | 100 | FA18X7S2A333KRU0□ |
| X7S | 47nF | ±10% | 100 | FA18X7S2A473KRU0□ |
| X7S | 68nF | ±10% | 100 | FA18X7S2A683KRU0□ |
| X7S | 100nF | ±10% | 100 | FA18X7S2A104KRU0□ |

* The part numbers are TDK's standard specification products.

** The "□" of the Part Number contains the packaging symbol, 0 (Bulk packaging) or 6 (Taping packaging).

FA14 type

■ SHAPE & DIMENSIONS



FA14 type

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS SPECIFICATION TABLE

CLASS 1 (TEMPERATURE COMPENSATION)

| Temperature characteristics | Capacitance | Tolerance | Rated voltage Edc (V) | Part No.* |
|-----------------------------|-------------|-----------|--------------------------|-------------------|
| C0G | 15nF | ±5% | 50 | FA14C0G1H153JNU0□ |
| C0G | 22nF | ±5% | 50 | FA14C0G1H223JNU0□ |
| C0G | 33nF | ±5% | 50 | FA14C0G1H333JNU0□ |
| C0G | 3.9nF | ±5% | 100 | FA14C0G2A392JNU0□ |
| C0G | 4.7nF | ±5% | 100 | FA14C0G2A472JNU0□ |
| C0G | 5.6nF | ±5% | 100 | FA14C0G2A562JNU0□ |
| C0G | 6.8nF | ±5% | 100 | FA14C0G2A682JNU0□ |
| C0G | 8.2nF | ±5% | 100 | FA14C0G2A822JNU0□ |
| C0G | 10nF | ±5% | 100 | FA14C0G2A103JNU0□ |
| C0G | 15nF | ±5% | 100 | FA14C0G2A153JRU0□ |
| C0G | 22nF | ±5% | 100 | FA14C0G2A223JRU0□ |
| C0G | 33nF | ±5% | 100 | FA14C0G2A333JRU0□ |

* The part numbers are TDK's standard specification products.

** The "□" of the Part Number contains the packaging symbol, 0 (Bulk packaging) or 6 (Taping packaging).

CHARACTERISTICS SPECIFICATION TABLE

CLASS 2 (TEMPERATURE STABLE)

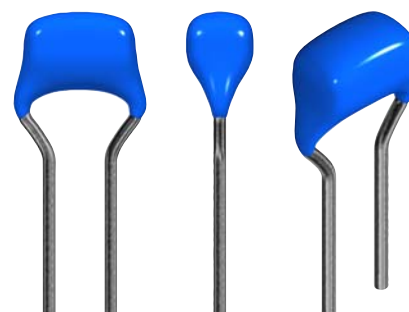
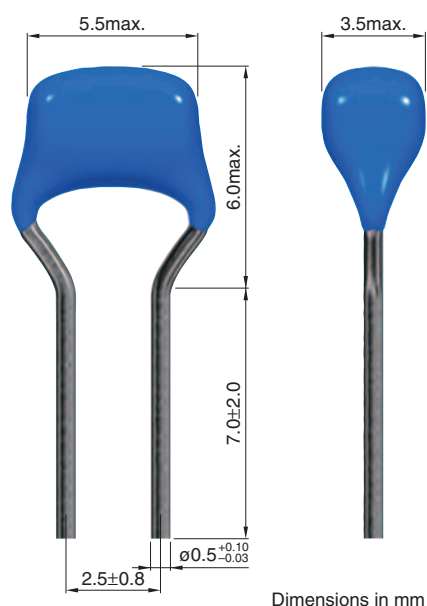
| Temperature characteristics | Capacitance | Tolerance | Rated voltage Edc (V) | Part No.* |
|-----------------------------|-------------|-----------|--------------------------|---------------------|
| X7R | 470nF | ±10% | 25 | FA14X7R1E474KNU0□** |
| X7R | 3.3uF | ±10% | 25 | FA14X7R1E335KRU0□ |
| X7R | 4.7uF | ±10% | 25 | FA14X7R1E475KRU0□ |
| X7R | 150nF | ±10% | 50 | FA14X7R1H154KNU0□ |
| X7R | 220nF | ±10% | 50 | FA14X7R1H224KNU0□ |
| X7R | 330nF | ±10% | 50 | FA14X7R1H334KNU0□ |
| X7R | 680nF | ±10% | 50 | FA14X7R1H684KRU0□ |
| X7R | 1uF | ±10% | 50 | FA14X7R1H105KRU0□ |
| X7R | 1.5uF | ±10% | 50 | FA14X7R1H155KRU0□ |
| X7R | 2.2uF | ±10% | 50 | FA14X7R1H225KRU0□ |
| X7R | 33nF | ±10% | 100 | FA14X7R2A333KNU0□ |
| X7R | 47nF | ±10% | 100 | FA14X7R2A473KNU0□ |
| X7R | 68nF | ±10% | 100 | FA14X7R2A683KNU0□ |
| X7R | 100nF | ±10% | 100 | FA14X7R2A104KNU0□ |
| X7S | 150nF | ±10% | 100 | FA14X7S2A154KRU0□ |
| X7S | 220nF | ±10% | 100 | FA14X7S2A224KRU0□ |
| X7S | 330nF | ±10% | 100 | FA14X7S2A334KRU0□ |
| X7S | 470nF | ±10% | 100 | FA14X7S2A474KRU0□ |
| X7S | 680nF | ±10% | 100 | FA14X7S2A684KRU0□ |
| X7S | 1uF | ±10% | 100 | FA14X7S2A105KRU0□ |

* The part numbers are TDK's standard specification products.

** The "□" of the Part Number contains the packaging symbol, 0 (Bulk packaging) or 6 (Taping packaging).

FA16 type

■ SHAPE & DIMENSIONS



FA16 type

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS SPECIFICATION TABLE

CLASS 1 (TEMPERATURE COMPENSATION)

| Temperature characteristics | Capacitance | Tolerance | Rated voltage Edc (V) | Part No.* |
|-----------------------------|-------------|-----------|-----------------------|---------------------|
| C0G | 47nF | ±5% | 50 | FA16C0G1H473JNU0□** |
| C0G | 68nF | ±5% | 50 | FA16C0G1H683JNU0□ |
| C0G | 100nF | ±5% | 50 | FA16C0G1H104JNU0□ |
| C0G | 15nF | ±5% | 100 | FA16C0G2A153JNU0□ |
| C0G | 22nF | ±5% | 100 | FA16C0G2A223JNU0□ |
| C0G | 33nF | ±5% | 100 | FA16C0G2A333JNU0□ |
| C0G | 47nF | ±5% | 100 | FA16C0G2A473JRU0□ |
| C0G | 68nF | ±5% | 100 | FA16C0G2A683JRU0□ |
| C0G | 100nF | ±5% | 100 | FA16C0G2A104JRU0□ |

* The part numbers are TDK's standard specification products.

** The "□" of the Part Number contains the packaging symbol, 0 (Bulk packaging) or 6 (Taping packaging).

CHARACTERISTICS SPECIFICATION TABLE

CLASS 2 (TEMPERATURE STABLE)

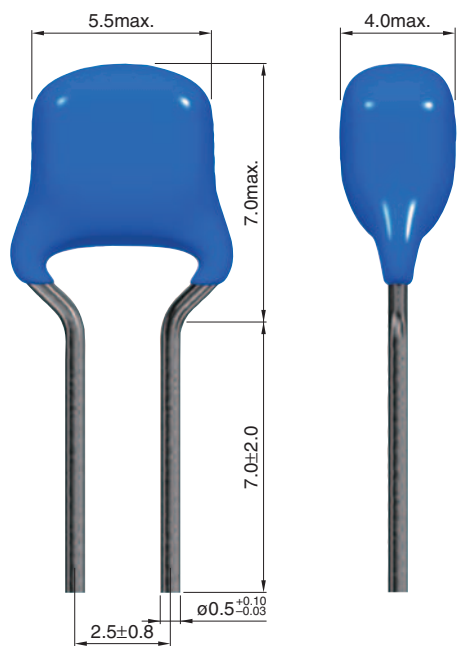
| Temperature characteristics | Capacitance | Tolerance | Rated voltage Edc (V) | Part No.* |
|-----------------------------|-------------|-----------|-----------------------|---------------------|
| X7R | 1uF | ±10% | 25 | FA16X7R1E105KNU0□** |
| X7R | 1.5uF | ±10% | 25 | FA16X7R1E155KNU0□ |
| X7R | 2.2uF | ±10% | 25 | FA16X7R1E225KNU0□ |
| X7R | 6.8uF | ±10% | 25 | FA16X7R1E685KRU0□ |
| X7R | 10uF | ±10% | 25 | FA16X7R1E106KRU0□ |
| X7R | 470nF | ±10% | 50 | FA16X7R1H474KNU0□ |
| X7R | 680nF | ±10% | 50 | FA16X7R1H684KNU0□ |
| X7R | 3.3uF | ±10% | 50 | FA16X7R1H335KRU0□ |
| X7R | 4.7uF | ±10% | 50 | FA16X7R1H475KRU0□ |
| X7R | 150nF | ±10% | 100 | FA16X7R2A154KNU0□ |
| X7R | 220nF | ±10% | 100 | FA16X7R2A224KNU0□ |
| X7R | 330nF | ±10% | 100 | FA16X7R2A334KNU0□ |
| X7R | 470nF | ±10% | 100 | FA16X7R2A474KNU0□ |
| X7R | 680nF | ±10% | 100 | FA16X7R2A684KNU0□ |
| X7R | 1uF | ±10% | 100 | FA16X7R2A105KNU0□ |
| X7S | 1.5uF | ±10% | 100 | FA16X7S2A155KRU0□ |
| X7S | 2.2uF | ±10% | 100 | FA16X7S2A225KRU0□ |
| X7S | 3.3uF | ±10% | 100 | FA16X7S2A335KRU0□ |

* The part numbers are TDK's standard specification products.

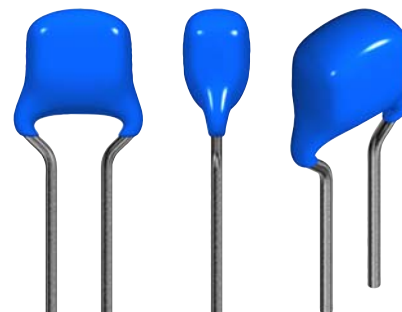
** The "□" of the Part Number contains the packaging symbol, 0 (Bulk packaging) or 6 (Taping packaging).

FA11 type

■ SHAPE & DIMENSIONS



Dimensions in mm



⚠ 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.

FA11 type

■ ELECTRICAL CHARACTERISTICS

□ CHARACTERISTICS SPECIFICATION TABLE

CLASS 1 (TEMPERATURE COMPENSATION)

| Temperature characteristics | Capacitance | Tolerance | Rated voltage Edc (V) | Part No.* |
|-----------------------------|-------------|-----------|-----------------------|---------------------|
| C0G | 47nF | ±5% | 100 | FA11C0G2A473JNU0□** |
| C0G | 68nF | ±5% | 100 | FA11C0G2A683JNU0□ |

* The part numbers are TDK's standard specification products.

** The "□" of the Part Number contains the packaging symbol, 0 (Bulk packaging) or 6 (Taping packaging).

CLASS 2 (TEMPERATURE STABLE)

| Temperature characteristics | Capacitance | Tolerance | Rated voltage Edc (V) | Part No.* |
|-----------------------------|-------------|-----------|-----------------------|---------------------|
| X7R | 3.3uF | ±10% | 25 | FA11X7R1E335KNU0□** |
| X7R | 4.7uF | ±10% | 25 | FA11X7R1E475KNU0□ |
| X7R | 1uF | ±10% | 50 | FA11X7R1H105KNU0□ |
| X7R | 1.5uF | ±10% | 50 | FA11X7R1H155KNU0□ |
| X7R | 1.5uF | ±10% | 100 | FA11X7R2A155KRU0□ |
| X7R | 2.2uF | ±10% | 100 | FA11X7R2A225KRU0□ |
| X7S | 6.8uF | ±10% | 50 | FA11X7S1H685KRU0□ |
| X7S | 10uF | ±10% | 50 | FA11X7S1H106KRU0□ |
| X7S | 4.7uF | ±10% | 100 | FA11X7S2A475KRU0□ |

* The part numbers are TDK's standard specification products.

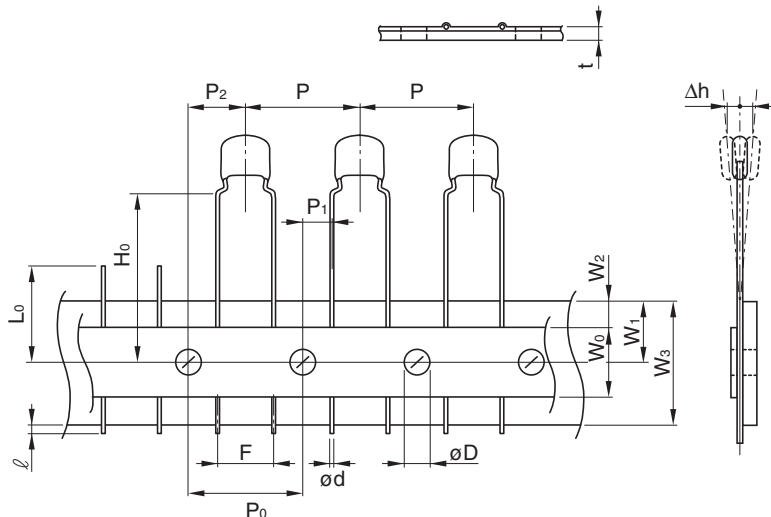
** The "□" of the Part Number contains the packaging symbol, 0 (Bulk packaging) or 6 (Taping packaging).

Packaging style

TAPING DIMENSIONS

Lead pitch 5.0 mm

(FA28, FA24, FA26, FA20, FA22, FA23 type)

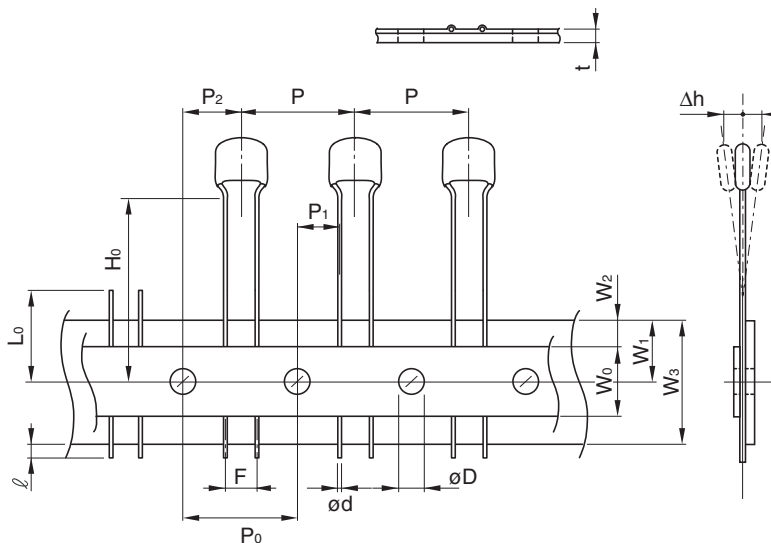


| Symbol | Dimensions in mm |
|-------------------|------------------|
| P | 12.7±1.0 |
| P ₀ *1 | 12.7±0.3 |
| P ₁ | 3.85±0.7 |
| P ₂ | 6.35±1.3 |
| W ₀ | 12.0±1.0 |
| W ₁ | 9.0±0.5 |
| W ₂ *2 | 3.0max. |
| W ₃ | 18.0+1.0, -0.5 |
| H ₀ | 16.0±0.5 |
| ℓ | 1.0max. |
| t | 0.6±0.2 |
| L ₀ *3 | 11.0max. |
| F | 5.0+0.8, -0.2 |
| ød | ø0.5+0.1, -0.03 |
| øD | ø4.0±0.2 |
| Δh | 0±2 |

*1 Accumulated pitch tolerance shall be ±2mm for 20 pitches.
 *2 Adhesive tape shall not stick out from carrier tape.
 *3 The number of consecutive gaps in the product shall be three or less.

Lead pitch 2.5 mm

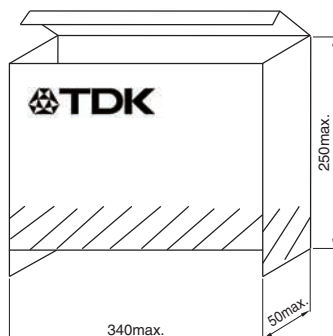
(FA18, FA14, FA16, FA11 type)



| Symbol | Dimensions in mm |
|-------------------|------------------|
| P | 12.7±1.0 |
| P ₀ *1 | 12.7±0.3 |
| P ₁ | 5.1±0.7 |
| P ₂ | 6.35±1.3 |
| W ₀ | 12.0±1.0 |
| W ₁ | 9.0±0.5 |
| W ₂ *2 | 3.0max. |
| W ₃ | 18.0+1.0, -0.5 |
| H ₀ | 16.0±0.5 |
| ℓ | 1.0max. |
| t | 0.6±0.2 |
| L ₀ *3 | 11.0max. |
| F | 2.5+0.5, -0.2 |
| ød | ø0.5+0.1, -0.03 |
| øD | ø4.0±0.2 |
| Δh | 0±2 |

*1 Accumulated pitch tolerance shall be ±2mm for 20 pitches.
 *2 Adhesive tape shall not stick out from carrier tape.
 *3 The number of consecutive gaps in the product shall be three or less.

AMMO PACK INNER BOX SIZE



Dimensions in mm

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

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