

Dipped Radial Ceramic Capacitors

General Use FK Series

Conformity to RoHS Directive

FEATURES

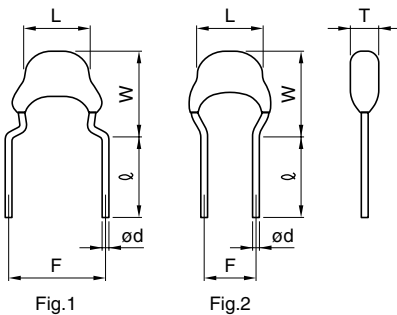
- Due to the technological progress in creating thinner layers of ceramic dielectric and achieving multilayer lamination, this product provides large electrostatic capacity.
- It maintains a high level of reliability under specified environmental conditions.
- Its residual inductance is small and it provides good frequency characteristics.
- The leads are formed with a "kink" to achieve consistent insertion heights and facilitate the release of gases during soldering for dramatically improved solderability.
- Also available are products that meet taping specifications for automatic insertions, which contribute to reducing on-board costs.

PRODUCT IDENTIFICATION

FK 28 C0G 1H 101 J □□□□
 (1) (2) (3) (4) (5) (6) (7)

(1) Series name

(2) Dimensions and shapes of lead wire



Dimensions in mm

| Type | L max. | W max. | T max. | F | ℓ | ød | Fig |
|------|--------|--------|--------|---------|--------|---------------|-----|
| 28 | 4.0 | 5.5 | 2.5 | 5.0±1.0 | 7±2 | 0.5+0.1,-0.03 | 1 |
| 24 | 4.5 | 5.5 | 2.5 | 5.0±1.0 | 7±2 | 0.5+0.1,-0.03 | 1 |
| 26 | 5.5 | 6.0 | 3.5 | 5.0±1.0 | 7±2 | 0.5+0.1,-0.03 | 1 |
| 20 | 5.5 | 7.0 | 4.0 | 5.0±1.0 | 7±2 | 0.5+0.1,-0.03 | 1 |
| 22 | 7.5 | 8.0 | 4.0 | 5.0±1.0 | 7±2 | 0.5+0.1,-0.03 | 1 |
| 18 | 4.0 | 5.5 | 2.5 | 2.5±0.8 | 5+3,-1 | 0.5+0.1,-0.03 | 2 |
| 14 | 4.5 | 5.5 | 2.5 | 2.5±0.8 | 5+3,-1 | 0.5+0.1,-0.03 | 2 |
| 16 | 5.5 | 6.0 | 3.5 | 2.5±0.8 | 5+3,-1 | 0.5+0.1,-0.03 | 2 |
| 11 | 5.5 | 7.0 | 4.0 | 2.5±0.8 | 5+3,-1 | 0.5+0.1,-0.03 | 2 |

(3) Capacitance temperature characteristics

Class 1 (Temperature compensation)

| Temperature characteristics | Capacitance change | Temperature range |
|-----------------------------|--------------------|-------------------|
| C0G | 0±30ppm/°C | -55 to +125°C |

Class 2 (Temperature stable and general purpose)

| Temperature characteristics | Capacitance change | Temperature range |
|-----------------------------|--------------------|-------------------|
| X7R | ±15% | -55 to +125°C |
| X5R | ±15% | -55 to +85°C |
| Y5V | +22,-82% | -30 to +85°C |

(4) Rated voltage E_{dc}

| | |
|----|------|
| 0J | 6.3V |
| 1A | 10V |
| 1C | 16V |
| 1E | 25V |
| 1H | 50V |

(5) Nominal capacitance

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.

| | |
|-----|---------|
| 010 | 1pF |
| 100 | 10pF |
| 102 | 1,000pF |

(6) Capacitance tolerance

| Symbol | Tolerance | Applicable capacitance range |
|--------|-----------|------------------------------|
| D | ±0.5pF | 10pF max. |
| J | ±5% | Over 10pF |
| K | ±10% | |
| M | ±20% | |
| Z | +80,-20% | |

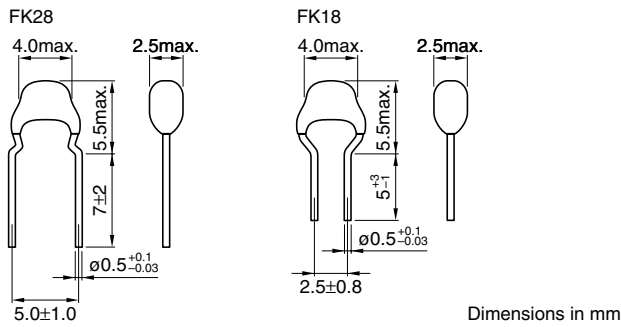
(7) TDK internal code

• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

FK28 AND FK18 TYPES

SHAPES AND DIMENSIONS



CAPACITANCE RANGES:

CLASS 1 (TEMPERATURE COMPENSATION)

TEMPERATURE CHARACTERISTICS: C0G(0±30ppm/°C)

RATED VOLTAGE E_{dc}: 50V

| Capacitance (pF) | Tolerance | Part No. FK28 type | FK18 type |
|------------------|-----------|--------------------|---------------|
| 10 | ±0.5pF | FK28C0G1H100D | FK18C0G1H100D |
| 12 | ±5% | FK28C0G1H120J | FK18C0G1H120J |
| 15 | ±5% | FK28C0G1H150J | FK18C0G1H150J |
| 18 | ±5% | FK28C0G1H180J | FK18C0G1H180J |
| 22 | ±5% | FK28C0G1H220J | FK18C0G1H220J |
| 27 | ±5% | FK28C0G1H270J | FK18C0G1H270J |
| 33 | ±5% | FK28C0G1H330J | FK18C0G1H330J |
| 39 | ±5% | FK28C0G1H390J | FK18C0G1H390J |
| 47 | ±5% | FK28C0G1H470J | FK18C0G1H470J |
| 56 | ±5% | FK28C0G1H560J | FK18C0G1H560J |
| 68 | ±5% | FK28C0G1H680J | FK18C0G1H680J |
| 82 | ±5% | FK28C0G1H820J | FK18C0G1H820J |
| 100 | ±5% | FK28C0G1H101J | FK18C0G1H101J |
| 120 | ±5% | FK28C0G1H121J | FK18C0G1H121J |
| 150 | ±5% | FK28C0G1H151J | FK18C0G1H151J |
| 180 | ±5% | FK28C0G1H181J | FK18C0G1H181J |
| 220 | ±5% | FK28C0G1H221J | FK18C0G1H221J |
| 270 | ±5% | FK28C0G1H271J | FK18C0G1H271J |
| 330 | ±5% | FK28C0G1H331J | FK18C0G1H331J |
| 390 | ±5% | FK28C0G1H391J | FK18C0G1H391J |
| 470 | ±5% | FK28C0G1H471J | FK18C0G1H471J |
| 560 | ±5% | FK28C0G1H561J | FK18C0G1H561J |
| 680 | ±5% | FK28C0G1H681J | FK18C0G1H681J |
| 820 | ±5% | FK28C0G1H821J | FK18C0G1H821J |
| 1,000 | ±5% | FK28C0G1H102J | FK18C0G1H102J |
| 1,200 | ±5% | FK28C0G1H122J | FK18C0G1H122J |
| 1,500 | ±5% | FK28C0G1H152J | FK18C0G1H152J |
| 1,800 | ±5% | FK28C0G1H182J | FK18C0G1H182J |
| 2,200 | ±5% | FK28C0G1H222J | FK18C0G1H222J |
| 2,700 | ±5% | FK28C0G1H272J | FK18C0G1H272J |
| 3,300 | ±5% | FK28C0G1H332J | FK18C0G1H332J |

CAPACITANCE RANGES: CLASS 2

TEMPERATURE CHARACTERISTICS: X7R(±15%)

RATED VOLTAGE E_{dc}: 50V

| Capacitance (pF) | Tolerance | Part No. FK28 type | FK18 type |
|------------------|-----------|--------------------|---------------|
| 1,000 | ±10% | FK28X7R1H102K | FK18X7R1H102K |
| 1,500 | ±10% | FK28X7R1H152K | FK18X7R1H152K |
| 2,200 | ±10% | FK28X7R1H222K | FK18X7R1H222K |
| 3,300 | ±10% | FK28X7R1H332K | FK18X7R1H332K |
| 4,700 | ±10% | FK28X7R1H472K | FK18X7R1H472K |
| 6,800 | ±10% | FK28X7R1H682K | FK18X7R1H682K |
| 10,000 | ±10% | FK28X7R1H103K | FK18X7R1H103K |
| 15,000 | ±10% | FK28X7R1H153K | FK18X7R1H153K |
| 22,000 | ±10% | FK28X7R1H223K | FK18X7R1H223K |
| 33,000 | ±10% | FK28X7R1H333K | FK18X7R1H333K |
| 47,000 | ±10% | FK28X7R1H473K | FK18X7R1H473K |
| 68,000 | ±10% | FK28X7R1H683K | FK18X7R1H683K |
| 100,000 | ±10% | FK28X7R1H104K | FK18X7R1H104K |

RATED VOLTAGE E_{dc}: 25V

| Capacitance (pF) | Tolerance | Part No. FK28 type | FK18 type |
|------------------|-----------|--------------------|---------------|
| 150,000 | ±10% | FK28X7R1E154K | FK18X7R1E154K |
| | ±20% | FK28X7R1E154M | FK18X7R1E154M |

RATED VOLTAGE E_{dc}: 16V

| Capacitance (pF) | Tolerance | Part No. FK28 type | FK18 type |
|------------------|-----------|--------------------|---------------|
| 220,000 | ±10% | FK28X7R1C224K | FK18X7R1C224K |
| | ±20% | FK28X7R1C224M | FK18X7R1C224M |

TEMPERATURE CHARACTERISTICS: X5R(±15%)

RATED VOLTAGE E_{dc}: 10V

| Capacitance (pF) | Tolerance | Part No. FK28 type | FK18 type |
|------------------|-----------|--------------------|---------------|
| 330,000 | ±10% | FK28X5R1A334K | FK18X5R1A334K |
| | ±20% | FK28X5R1A334M | FK18X5R1A334M |
| 470,000 | ±10% | FK28X5R1A474K | FK18X5R1A474K |
| | ±20% | FK28X5R1A474M | FK18X5R1A474M |
| 680,000 | ±10% | FK28X5R1A684K | FK18X5R1A684K |
| | ±20% | FK28X5R1A684M | FK18X5R1A684M |
| 1,000,000 [1μF] | ±10% | FK28X5R1A105K | FK18X5R1A105K |
| | ±20% | FK28X5R1A105M | FK18X5R1A105M |

TEMPERATURE CHARACTERISTICS: Y5V(+22, -82%)

RATED VOLTAGE Edc: 50V

| Capacitance (pF) | Tolerance | Part No. | |
|---------------------|-----------|---------------|---------------|
| | | FK28 type | FK18 type |
| 100,000 | +80,-20% | FK28Y5V1H104Z | FK18Y5V1H104Z |
| 220,000 | +80,-20% | FK28Y5V1H224Z | FK18Y5V1H224Z |

RATED VOLTAGE Edc: 25V

| Capacitance (pF) | Tolerance | Part No. | |
|---------------------|-----------|---------------|---------------|
| | | FK28 type | FK18 type |
| 470,000 | +80,-20% | FK28Y5V1E474Z | FK18Y5V1E474Z |

RATED VOLTAGE Edc: 16V

| Capacitance (pF) | Tolerance | Part No. | |
|---------------------|-----------|---------------|---------------|
| | | FK28 type | FK18 type |
| 1,000,000 [1μF] | +80,-20% | FK28Y5V1C105Z | FK18Y5V1C105Z |

RATED VOLTAGE Edc: 10V

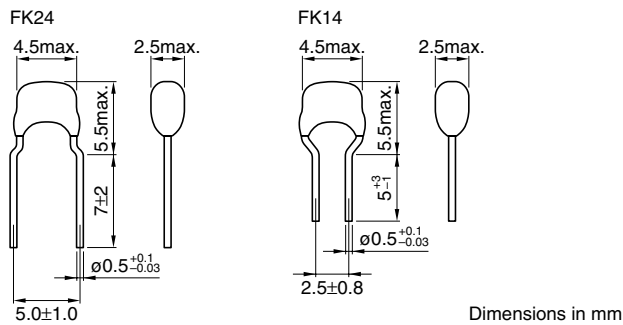
| Capacitance (pF) | Tolerance | Part No. | |
|----------------------|-----------|---------------|---------------|
| | | FK28 type | FK18 type |
| 2,200,000 [2.2μF] | +80,-20% | FK28Y5V1A225Z | FK18Y5V1A225Z |

RATED VOLTAGE Edc: 6.3V

| Capacitance (pF) | Tolerance | Part No. | |
|----------------------|-----------|---------------|---------------|
| | | FK28 type | FK18 type |
| 4,700,000 [4.7μF] | +80,-20% | FK28Y5V0J475Z | FK18Y5V0J475Z |

FK24 AND FK14 TYPES

SHAPES AND DIMENSIONS



CAPACITANCE RANGES:

CLASS 1 (TEMPERATURE COMPENSATION)

TEMPERATURE CHARACTERISTICS: C0G(0±30ppm/°C)

RATED VOLTAGE E_{dc}: 50V

| Capacitance (pF) | Tolerance | Part No. FK24 type | Part No. FK14 type |
|------------------|-----------|--------------------|--------------------|
| 3,900 | ±5% | FK24C0G1H392J | FK14C0G1H392J |
| 4,700 | ±5% | FK24C0G1H472J | FK14C0G1H472J |
| 5,600 | ±5% | FK24C0G1H562J | FK14C0G1H562J |
| 6,800 | ±5% | FK24C0G1H682J | FK14C0G1H682J |
| 8,200 | ±5% | FK24C0G1H822J | FK14C0G1H822J |
| 10,000 | ±5% | FK24C0G1H103J | FK14C0G1H103J |

CAPACITANCE RANGES: CLASS 2

TEMPERATURE CHARACTERISTICS: X7R(±15%)

RATED VOLTAGE E_{dc}: 50V

| Capacitance (pF) | Tolerance | Part No. FK24 type | Part No. FK14 type |
|------------------|-----------|--------------------|--------------------|
| 150,000 | ±10% | FK24X7R1H154K | FK14X7R1H154K |
| | ±20% | FK24X7R1H154M | FK14X7R1H154M |
| 220,000 | ±10% | FK24X7R1H224K | FK14X7R1H224K |
| | ±20% | FK24X7R1H224M | FK14X7R1H224M |
| 330,000 | ±10% | FK24X7R1H334K | FK14X7R1H334K |
| | ±20% | FK24X7R1H334M | FK14X7R1H334M |

RATED VOLTAGE E_{dc}: 25V

| Capacitance (pF) | Tolerance | Part No. FK24 type | Part No. FK14 type |
|------------------|-----------|--------------------|--------------------|
| 470,000 | ±10% | FK24X7R1E474K | FK14X7R1E474K |
| | ±20% | FK24X7R1E474M | FK14X7R1E474M |
| 680,000 | ±10% | FK24X7R1E684K | FK14X7R1E684K |
| | ±20% | FK24X7R1E684M | FK14X7R1E684M |
| 1,000,000 [1μF] | ±10% | FK24X7R1E105K | FK14X7R1E105K |
| | ±20% | FK24X7R1E105M | FK14X7R1E105M |
| 1,500,000 | ±10% | FK24X7R1E155K | FK14X7R1E155K |
| | ±20% | FK24X7R1E155M | FK14X7R1E155M |

RATED VOLTAGE E_{dc}: 16V

| Capacitance (pF) | Tolerance | Part No. FK24 type | Part No. FK14 type |
|------------------|-----------|--------------------|--------------------|
| 680,000 | ±10% | FK24X7R1C684K | FK14X7R1C684K |
| | ±20% | FK24X7R1C684M | FK14X7R1C684M |
| 1,000,000 [1μF] | ±10% | FK24X7R1C105K | FK14X7R1C105K |
| | ±20% | FK24X7R1C105M | FK14X7R1C105M |
| 1,500,000 | ±10% | FK24X7R1C155K | FK14X7R1C155K |
| | ±20% | FK24X7R1C155M | FK14X7R1C155M |
| 2,200,000 | ±10% | FK24X7R1C225K | FK14X7R1C225K |
| | ±20% | FK24X7R1C225M | FK14X7R1C225M |

TEMPERATURE CHARACTERISTICS: X5R(±15%)

RATED VOLTAGE E_{dc}: 10V

| Capacitance (pF) | Tolerance | Part No. FK24 type | Part No. FK14 type |
|-------------------|-----------|--------------------|--------------------|
| 1,500,000 [1.5μF] | ±10% | FK24X5R1A155K | FK14X5R1A155K |
| | ±20% | FK24X5R1A155M | FK14X5R1A155M |
| 2,200,000 | ±10% | FK24X5R1A225K | FK14X5R1A225K |
| | ±20% | FK24X5R1A225M | FK14X5R1A225M |
| 3,300,000 | ±10% | FK24X5R1A335K | FK14X5R1A335K |
| | ±20% | FK24X5R1A335M | FK14X5R1A335M |
| 4,700,000 | ±10% | FK24X5R1A475K | FK14X5R1A475K |
| | ±20% | FK24X5R1A475M | FK14X5R1A475M |

RATED VOLTAGE E_{dc}: 6.3V

| Capacitance (pF) | Tolerance | Part No. FK24 type | Part No. FK14 type |
|-------------------|-----------|--------------------|--------------------|
| 4,700,000 [4.7μF] | ±10% | FK24X5R0J475K | FK14X5R0J475K |
| | ±20% | FK24X5R0J475M | FK14X5R0J475M |
| 6,800,000 | ±10% | FK24X5R0J685K | FK14X5R0J685K |
| | ±20% | FK24X5R0J685M | FK14X5R0J685M |
| 10,000,000 | ±10% | FK24X5R0J106K | FK14X5R0J106K |
| | ±20% | FK24X5R0J106M | FK14X5R0J106M |

TEMPERATURE CHARACTERISTICS: Y5V(+22, -82%)

RATED VOLTAGE E_{dc}: 50V

| Capacitance (pF) | Tolerance | Part No. FK24 type | Part No. FK14 type |
|------------------|-----------|--------------------|--------------------|
| 470,000 | +80, -20% | FK24Y5V1H474Z | FK14Y5V1H474Z |
| 1,000,000 [1μF] | +80, -20% | FK24Y5V1H105Z | FK14Y5V1H105Z |

RATED VOLTAGE E_{dc}: 25V

| Capacitance (pF) | Tolerance | Part No. FK24 type | Part No. FK14 type |
|-------------------|-----------|--------------------|--------------------|
| 2,200,000 [2.2μF] | +80, -20% | FK24Y5V1E225Z | FK14Y5V1E225Z |

RATED VOLTAGE E_{dc}: 16V

| Capacitance (pF) | Tolerance | Part No. FK24 type | Part No. FK14 type |
|-------------------|-----------|--------------------|--------------------|
| 4,700,000 [4.7μF] | +80, -20% | FK24Y5V1C475Z | FK14Y5V1C475Z |

RATED VOLTAGE E_{dc}: 10V

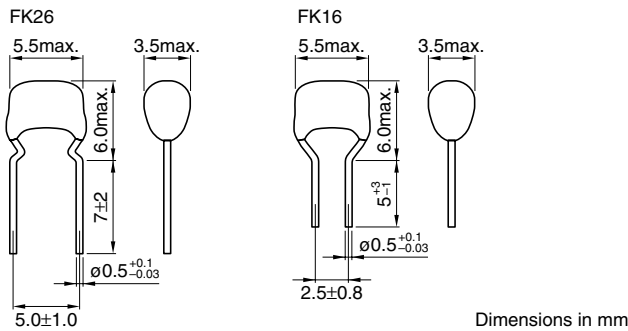
| Capacitance (pF) | Tolerance | Part No. FK24 type | Part No. FK14 type |
|-------------------|-----------|--------------------|--------------------|
| 10,000,000 [10μF] | +80, -20% | FK24Y5V1A106Z | FK14Y5V1A106Z |

RATED VOLTAGE E_{dc}: 6.3V

| Capacitance (pF) | Tolerance | Part No. FK24 type | Part No. FK14 type |
|-------------------|-----------|--------------------|--------------------|
| 22,000,000 [22μF] | +80, -20% | FK24Y5V0J226Z | FK14Y5V0J226Z |

FK26 AND FK16 TYPES

SHAPES AND DIMENSIONS



CAPACITANCE RANGES:

CLASS 1 (TEMPERATURE COMPENSATION)

TEMPERATURE CHARACTERISTICS: C0G(0±30ppm/°C)

RATED VOLTAGE E_{dc}: 50V

| Capacitance (pF) | Tolerance | Part No. | |
|------------------|-----------|---------------|---------------|
| | | FK26 type | FK16 type |
| 15,000 | ±5% | FK26C0G1H153J | FK16C0G1H153J |
| 22,000 | ±5% | FK26C0G1H223J | FK16C0G1H223J |
| 33,000 | ±5% | FK26C0G1H333J | FK16C0G1H333J |

CAPACITANCE RANGES: CLASS 2

TEMPERATURE CHARACTERISTICS: X7R(±15%)

RATED VOLTAGE E_{dc}: 50V

| Capacitance (pF) | Tolerance | Part No. | |
|------------------|-----------|---------------|---------------|
| | | FK26 type | FK16 type |
| 470,000 | ±10% | FK26X7R1H474K | FK16X7R1H474K |
| | ±20% | FK26X7R1H474M | FK16X7R1H474M |

RATED VOLTAGE E_{dc}: 25V

| Capacitance (pF) | Tolerance | Part No. | |
|----------------------|-----------|---------------|---------------|
| | | FK26 type | FK16 type |
| 680,000 | ±10% | FK26X7R1E684K | FK16X7R1E684K |
| | ±20% | FK26X7R1E684M | FK16X7R1E684M |
| 1,000,000 [1μF] | ±10% | FK26X7R1E105K | FK16X7R1E105K |
| | ±20% | FK26X7R1E105M | FK16X7R1E105M |
| 1,500,000 [1.5μF] | ±10% | FK26X7R1E155K | FK16X7R1E155K |
| | ±20% | FK26X7R1E155M | FK16X7R1E155M |
| 2,200,000 [2.2μF] | ±10% | FK26X7R1E225K | FK16X7R1E225K |
| | ±20% | FK26X7R1E225M | FK16X7R1E225M |

RATED VOLTAGE E_{dc}: 16V

| Capacitance (pF) | Tolerance | Part No. | |
|----------------------|-----------|---------------|---------------|
| | | FK26 type | FK16 type |
| 3,300,000 [3.3μF] | ±10% | FK26X7R1C335K | FK16X7R1C335K |
| | ±20% | FK26X7R1C335M | FK16X7R1C335M |
| 4,700,000 | ±10% | FK26X7R1C475K | FK16X7R1C475K |
| | ±20% | FK26X7R1C475M | FK16X7R1C475M |

TEMPERATURE CHARACTERISTICS: X5R(±15%)

RATED VOLTAGE E_{dc}: 16V

| Capacitance (pF) | Tolerance | Part No. | |
|----------------------|-----------|---------------|---------------|
| | | FK26 type | FK16 type |
| 3,300,000 [3.3μF] | ±10% | FK26X5R1C335K | FK16X5R1C335K |
| | ±20% | FK26X5R1C335M | FK16X5R1C335M |
| 4,700,000 | ±10% | FK26X5R1C475K | FK16X5R1C475K |
| | ±20% | FK26X5R1C475M | FK16X5R1C475M |

RATED VOLTAGE E_{dc}: 10V

| Capacitance (pF) | Tolerance | Part No. | |
|----------------------|-----------|---------------|---------------|
| | | FK26 type | FK16 type |
| 6,800,000 [6.8μF] | ±10% | FK26X5R1A685K | FK16X5R1A685K |
| | ±20% | FK26X5R1A685M | FK16X5R1A685M |
| 10,000,000 [10μF] | ±10% | FK26X5R1A106K | FK16X5R1A106K |
| | ±20% | FK26X5R1A106M | FK16X5R1A106M |

RATED VOLTAGE E_{dc}: 6.3V

| Capacitance (pF) | Tolerance | Part No. | |
|----------------------|-----------|---------------|---------------|
| | | FK26 type | FK16 type |
| 6,800,000 [6.8μF] | ±10% | FK26X5R0J685K | FK16X5R0J685K |
| | ±20% | FK26X5R0J685M | FK16X5R0J685M |
| 10,000,000 [10μF] | ±10% | FK26X5R0J106K | FK16X5R0J106K |
| | ±20% | FK26X5R0J106M | FK16X5R0J106M |
| 15,000,000 | ±20% | FK26X5R0J156M | FK16X5R0J156M |
| 22,000,000 | ±20% | FK26X5R0J226M | FK16X5R0J226M |

TEMPERATURE CHARACTERISTICS: Y5V(+22, -82%)

RATED VOLTAGE E_{dc}: 50V

| Capacitance (pF) | Tolerance | Part No. | |
|----------------------|-----------|---------------|---------------|
| | | FK26 type | FK16 type |
| 2,200,000 [2.2μF] | +80, -20% | FK26Y5V1H225Z | FK16Y5V1H225Z |

RATED VOLTAGE E_{dc}: 25V

| Capacitance (pF) | Tolerance | Part No. | |
|----------------------|-----------|---------------|---------------|
| | | FK26 type | FK16 type |
| 4,700,000 [4.7μF] | +80, -20% | FK26Y5V1E475Z | FK16Y5V1E475Z |

RATED VOLTAGE E_{dc}: 16V

| Capacitance (pF) | Tolerance | Part No. | |
|----------------------|-----------|---------------|---------------|
| | | FK26 type | FK16 type |
| 10,000,000 [10μF] | +80, -20% | FK26Y5V1C106Z | FK16Y5V1C106Z |

RATED VOLTAGE E_{dc}: 10V

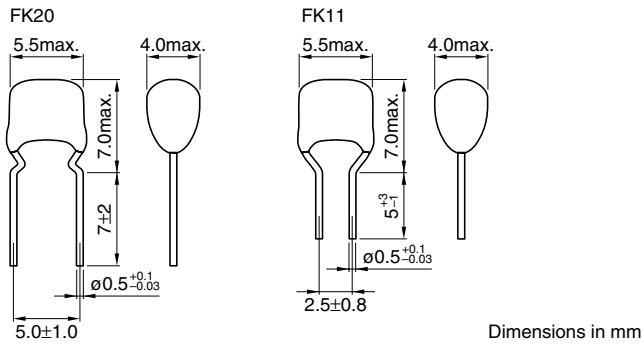
| Capacitance (pF) | Tolerance | Part No. | |
|----------------------|-----------|---------------|---------------|
| | | FK26 type | FK16 type |
| 22,000,000 [22μF] | +80, -20% | FK26Y5V1A226Z | FK16Y5V1A226Z |

RATED VOLTAGE E_{dc}: 6.3V

| Capacitance (pF) | Tolerance | Part No. | |
|----------------------|-----------|---------------|---------------|
| | | FK26 type | FK16 type |
| 47,000,000 [47μF] | +80, -20% | FK26Y5V0J476Z | FK16Y5V0J476Z |

FK20 AND FK11 TYPES

SHAPES AND DIMENSIONS



CAPACITANCE RANGES:

CLASS 1 (TEMPERATURE COMPENSATION)

TEMPERATURE CHARACTERISTICS: C0G(0±30ppm/°C)

RATED VOLTAGE E_{dc}: 50V

| Capacitance (pF) | Tolerance | Part No. FK20 type | FK11 type |
|------------------|-----------|-----------------------|---------------|
| 47,000 | ±5% | FK20C0G1H473J | FK11C0G1H473J |
| 68,000 | ±5% | FK20C0G1H683J | FK11C0G1H683J |
| 100,000 | ±5% | FK20C0G1H104J | FK11C0G1H104J |

CAPACITANCE RANGES: CLASS 2

TEMPERATURE CHARACTERISTICS: X7R(±15%)

RATED VOLTAGE E_{dc}: 50V

| Capacitance (pF) | Tolerance | Part No. FK20 type | FK11 type |
|-------------------|-----------|-----------------------|---------------|
| 680,000 | ±10% | FK20X7R1H684K | FK11X7R1H684K |
| | ±20% | FK20X7R1H684M | FK11X7R1H684M |
| 1,000,000 [1μF] | ±10% | FK20X7R1H105K | FK11X7R1H105K |
| | ±20% | FK20X7R1H105M | FK11X7R1H105M |
| 1,500,000 [1.5μF] | ±10% | FK20X7R1H155K | FK11X7R1H155K |
| | ±20% | FK20X7R1H155M | FK11X7R1H155M |

RATED VOLTAGE E_{dc}: 25V

| Capacitance (pF) | Tolerance | Part No. FK20 type | FK11 type |
|-------------------|-----------|-----------------------|---------------|
| 2,200,000 [2.2μF] | ±10% | FK20X7R1E225K | FK11X7R1E225K |
| | ±20% | FK20X7R1E225M | FK11X7R1E225M |
| 3,300,000 | ±10% | FK20X7R1E335K | FK11X7R1E335K |
| | ±20% | FK20X7R1E335M | FK11X7R1E335M |
| 4,700,000 | ±10% | FK20X7R1E475K | FK11X7R1E475K |
| | ±20% | FK20X7R1E475M | FK11X7R1E475M |
| 6,800,000 | ±10% | FK20X7R1E685K | FK11X7R1E685K |
| | ±20% | FK20X7R1E685M | FK11X7R1E685M |

RATED VOLTAGE E_{dc}: 16V

| Capacitance (pF) | Tolerance | Part No. FK20 type | FK11 type |
|-------------------|-----------|-----------------------|---------------|
| 10,000,000 [10μF] | ±10% | FK20X7R1C106K | FK11X7R1C106K |
| | ±20% | FK20X7R1C106M | FK11X7R1C106M |
| 15,000,000 | ±20% | FK20X7R1C156M | FK11X7R1C156M |

TEMPERATURE CHARACTERISTICS: X5R(±15%)

RATED VOLTAGE E_{dc}: 50V

| Capacitance (pF) | Tolerance | Part No. FK20 type | FK11 type |
|-------------------|-----------|-----------------------|---------------|
| 2,200,000 [2.2μF] | ±10% | FK20X5R1H225K | FK11X5R1H225K |
| | ±20% | FK20X5R1H225M | FK11X5R1H225M |
| 3,300,000 | ±10% | FK20X5R1H335K | FK11X5R1H335K |
| | ±20% | FK20X5R1H335M | FK11X5R1H335M |

RATED VOLTAGE E_{dc}: 10V

| Capacitance (pF) | Tolerance | Part No. FK20 type | FK11 type |
|-------------------|-----------|-----------------------|---------------|
| 15,000,000 [15μF] | ±20% | FK20X5R1A156M | FK11X5R1A156M |

RATED VOLTAGE E_{dc}: 6.3V

| Capacitance (pF) | Tolerance | Part No. FK20 type | FK11 type |
|-------------------|-----------|-----------------------|---------------|
| 22,000,000 [22μF] | ±20% | FK20X5R0J226M | FK11X5R0J226M |

TEMPERATURE CHARACTERISTICS: Y5V(+22, -82%)

RATED VOLTAGE E_{dc}: 50V

| Capacitance (pF) | Tolerance | Part No. FK20 type | FK11 type |
|-------------------|-----------|-----------------------|---------------|
| 4,700,000 [4.7μF] | +80, -20% | FK20Y5V1H475Z | FK11Y5V1H475Z |

RATED VOLTAGE E_{dc}: 25V

| Capacitance (pF) | Tolerance | Part No. FK20 type | FK11 type |
|-------------------|-----------|-----------------------|---------------|
| 10,000,000 [10μF] | +80, -20% | FK20Y5V1E106Z | FK11Y5V1E106Z |

RATED VOLTAGE E_{dc}: 16V

| Capacitance (pF) | Tolerance | Part No. FK20 type | FK11 type |
|-------------------|-----------|-----------------------|---------------|
| 22,000,000 [22μF] | +80, -20% | FK20Y5V1C226Z | FK11Y5V1C226Z |

RATED VOLTAGE E_{dc}: 10V

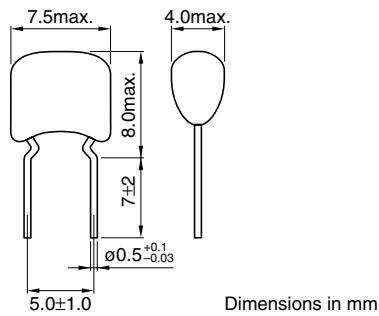
| Capacitance (pF) | Tolerance | Part No. FK20 type | FK11 type |
|-------------------|-----------|-----------------------|---------------|
| 47,000,000 [47μF] | +80, -20% | FK20Y5V1A476Z | FK11Y5V1A476Z |

RATED VOLTAGE E_{dc}: 6.3V

| Capacitance (pF) | Tolerance | Part No. FK20 type | FK11 type |
|---------------------|-----------|-----------------------|--------------|
| 100,000,000 [100μF] | +80, -20% | FK20Y5V0J107Z | F11Y5V0J107Z |

FK22 TYPE

SHAPES AND DIMENSIONS



CAPACITANCE RANGES:

CLASS 1 (TEMPERATURE COMPENSATION)

TEMPERATURE CHARACTERISTICS: C0G(0±30ppm/°C)

RATED VOLTAGE E_{dc}: 50V

| Capacitance (pF) | Tolerance | Part No. FK22 type |
|------------------|-----------|-----------------------|
| 100,000 | ±5% | FK22C0G1H104J |
| 150,000 | ±5% | FK22C0G1H154J |
| 220,000 | ±5% | FK22C0G1H224J |

CAPACITANCE RANGES: CLASS 2

TEMPERATURE CHARACTERISTICS: X7R(±15%)

RATED VOLTAGE E_{dc}: 50V

| Capacitance (pF) | Tolerance | Part No. FK22 type |
|----------------------|--------------|--------------------------------|
| 2,200,000 [2.2μF] | ±10% ±20% | FK22X7R1H225K FK22X7R1H225M |
| 3,300,000 | ±10% ±20% | FK22X7R1H335K FK22X7R1H335M |

RATED VOLTAGE E_{dc}: 25V

| Capacitance (pF) | Tolerance | Part No. FK22 type |
|----------------------|--------------|--------------------------------|
| 4,700,000 [4.7μF] | ±10% ±20% | FK22X7R1E475K FK22X7R1E475M |
| 6,800,000 | ±10% ±20% | FK22X7R1E685K FK22X7R1E685M |
| 10,000,000 [10μF] | ±10% ±20% | FK22X7R1E106K FK22X7R1E106M |
| 15,000,000 | ±20% | FK22X7R1E156M |

RATED VOLTAGE E_{dc}: 16V

| Capacitance (pF) | Tolerance | Part No. FK22 type |
|----------------------|-----------|-----------------------|
| 22,000,000 [22μF] | ±20% | FK22X7R1C226M |

TEMPERATURE CHARACTERISTICS: X5R(±15%)

RATED VOLTAGE E_{dc}: 10V

| Capacitance (pF) | Tolerance | Part No. FK22 type |
|----------------------|-----------|-----------------------|
| 33,000,000 [33μF] | ±20% | FK22X5R1A336M |
| 47,000,000 | ±20% | FK22X5R1A476M |

RATED VOLTAGE E_{dc}: 6.3V

| Capacitance (pF) | Tolerance | Part No. FK22 type |
|------------------------|-----------|-----------------------|
| 68,000,000 [68μF] | ±20% | FK22X5R0J686M |
| 100,000,000 [100μF] | ±20% | FK22X5R0J107M |

TEMPERATURE CHARACTERISTICS: Y5V(+22, -82%)

RATED VOLTAGE E_{dc}: 50V

| Capacitance (pF) | Tolerance | Part No. FK22 type |
|----------------------|-----------|-----------------------|
| 10,000,000 [10μF] | +80, -20% | FK22Y5V1H106Z |

RATED VOLTAGE E_{dc}: 25V

| Capacitance (pF) | Tolerance | Part No. FK22 type |
|----------------------|-----------|-----------------------|
| 22,000,000 [22μF] | +80, -20% | FK22Y5V1E226Z |

RATED VOLTAGE E_{dc}: 16V

| Capacitance (pF) | Tolerance | Part No. FK22 type |
|----------------------|-----------|-----------------------|
| 47,000,000 [47μF] | +80, -20% | FK22Y5V1C476Z |

RATED VOLTAGE E_{dc}: 10V

| Capacitance (pF) | Tolerance | Part No. FK22 type |
|------------------------|-----------|-----------------------|
| 100,000,000 [100μF] | +80, -20% | FK22Y5V1A107Z |

• For more information about products with other capacitance or other data, please contact us.

• All specifications are subject to change without notice.