

Multilayer Ceramic Capacitors

Dipped radial lead type Mid voltage

FK series

Type: FK28, FK18

FK24, FK14

FK26 FK20 FK22

Issue date: June 2006

- All specifications are subject to change without notice.
- 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.

&TDK

Dipped Radial Ceramic Capacitors Mid Voltage FK Series

Conformity to RoHS Directive

FEATURES

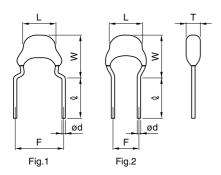
- Due to the technological progress in creating thinner layers of ceramic dielectric and achieving multilayer lamination, this product provides large electrostatic capacity.
- It maintains a high level of reliability under specified environmental conditions.
- Its residual inductance is small and it 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

 $\frac{FK}{(1)} \frac{28}{(2)} \frac{COG}{(3)} \frac{1H}{(4)} \frac{101}{(5)} \frac{J}{(6)} \frac{\Box \Box \Box}{(7)}$

(1) Series name

(2) Dimensions and shapes of lead wire



Dimensions in mm

| Туре | L max. | W max. | T max. | F | Q | 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 |

(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 | |

(4) Rated voltage Edc

| 2A | 100V | |
|----|------|--|
| 2E | 250V | |
| 2J | 630V | |

(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.

| 102 | 1,000pF | |
|-----|-----------|--|
| 333 | 33,000pF | |
| 474 | 470,000pF | |

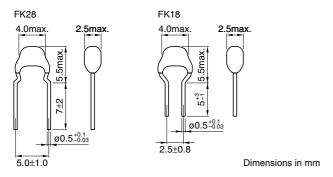
(6) Capacitance tolerance

| . , . | | |
|--------|-----------|--|
| Symbol | Tolerance | |
| J | ±5% | |
| K | ±10% | |
| M | ±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 Edc: 100V

| Capacitance | Tolerance | Part No. | |
|-------------|-----------|---------------|---------------|
| (pF) | | FK28 type | FK18 type |
| 100 | ±5% | FK28C0G2A101J | FK18C0G2A101J |
| 100 | ±10% | FK28C0G2A101K | FK18C0G2A101K |
| 120 | ±5% | FK28C0G2A121J | FK18C0G2A121J |
| 120 | ±10% | FK28C0G2A121K | FK18C0G2A121K |
| 150 | ±5% | FK28C0G2A151J | FK18C0G2A151J |
| 130 | ±10% | FK28C0G2A151K | FK18C0G2A151K |
| 180 | ±5% | FK28C0G2A181J | FK18C0G2A181J |
| 100 | ±10% | FK28C0G2A181K | FK18C0G2A181K |
| 220 | ±5% | FK28C0G2A221J | FK18C0G2A221J |
| 220 | ±10% | FK28C0G2A221K | FK18C0G2A221K |
| 270 | ±5% | FK28C0G2A271J | FK18C0G2A271J |
| 270 | ±10% | FK28C0G2A271K | FK18C0G2A271K |
| 330 | ±5% | FK28C0G2A331J | FK18C0G2A331J |
| 330 | ±10% | FK28C0G2A331K | FK18C0G2A331K |
| 390 | ±5% | FK28C0G2A391J | FK18C0G2A391J |
| 390 | ±10% | FK28C0G2A391K | FK18C0G2A391K |
| 470 | ±5% | FK28C0G2A471J | FK18C0G2A471J |
| 470 | ±10% | FK28C0G2A471K | FK18C0G2A471K |
| 560 | ±5% | FK28C0G2A561J | FK18C0G2A561J |
| 560 | ±10% | FK28C0G2A561K | FK18C0G2A561K |
| 680 | ±5% | FK28C0G2A681J | FK18C0G2A681J |
| 000 | ±10% | FK28C0G2A681K | FK18C0G2A681K |
| 820 | ±5% | FK28C0G2A821J | FK18C0G2A821J |
| 820 | ±10% | FK28C0G2A821K | FK18C0G2A821K |
| 1 000 | ±5% | FK28C0G2A102J | FK18C0G2A102J |
| 1,000 | ±10% | FK28C0G2A102K | FK18C0G2A102K |
| 1 200 | ±5% | FK28C0G2A122J | FK18C0G2A122J |
| 1,200 | ±10% | FK28C0G2A122K | FK18C0G2A122K |
| | | | |

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

RATED VOLTAGE Edc: 250V

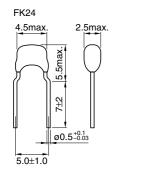
| _ | | | |
|-------------|-----------|---------------|---------------|
| Capacitance | Tolerance | Part No. | |
| (pF) | | FK28 type | FK18 type |
| 100 | ±5% | FK28C0G2E101J | FK18C0G2E101J |
| 100 | ±10% | FK28C0G2E101K | FK18C0G2E101K |
| 120 | ±5% | FK28C0G2E121J | FK18C0G2E121J |
| 120 | ±10% | FK28C0G2E121K | FK18C0G2E121K |
| 150 | ±5% | FK28C0G2E151J | FK18C0G2E151J |
| 150 | ±10% | FK28C0G2E151K | FK18C0G2E151K |
| 180 | ±5% | FK28C0G2E181J | FK18C0G2E181J |
| 160 | ±10% | FK28C0G2E181K | FK18C0G2E181K |
| 220 | ±5% | FK28C0G2E221J | FK18C0G2E221J |
| 220 | ±10% | FK28C0G2E221K | FK18C0G2E221K |
| 270 | ±5% | FK28C0G2E271J | FK18C0G2E271J |
| 270 | ±10% | FK28C0G2E271K | FK18C0G2E271K |
| 330 | ±5% | FK28C0G2E331J | FK18C0G2E331J |
| 330 | ±10% | FK28C0G2E331K | FK18C0G2E331K |
| 390 | ±5% | FK28C0G2E391J | FK18C0G2E391J |
| 390 | ±10% | FK28C0G2E391K | FK18C0G2E391K |
| 470 | ±5% | FK28C0G2E471J | FK18C0G2E471J |
| 470 | ±10% | FK28C0G2E471K | FK18C0G2E471K |
| 560 | ±5% | FK28C0G2E561J | FK18C0G2E561J |
| 500 | ±10% | FK28C0G2E561K | FK18C0G2E561K |
| 680 | ±5% | FK28C0G2E681J | FK18C0G2E681J |
| 000 | ±10% | FK28C0G2E681K | FK18C0G2E681K |
| | | | |

CAPACITANCE RANGES: CLASS 2 TEMPERATURE CHARACTERISTICS: X7R(±15%)

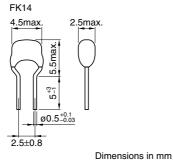
| Capacitance | Tolerance | Part No. | | |
|-------------|-----------|---------------|---------------|--|
| (pF) | | FK28 type | FK18 type | |
| 1 000 | ±10% | FK28X7R2A102K | FK18X7R2A102K | |
| 1,000 | ±20% | FK28X7R2A102M | FK18X7R2A102M | |
| 1,500 | ±10% | FK28X7R2A152K | FK18X7R2A152K | |
| 1,500 | ±20% | FK28X7R2A152M | FK18X7R2A152M | |
| 2 200 | ±10% | FK28X7R2A222K | FK18X7R2A222K | |
| 2,200 | ±20% | FK28X7R2A222M | FK18X7R2A222M | |
| 3,300 | ±10% | FK28X7R2A332K | FK18X7R2A332K | |
| 3,300 | ±20% | FK28X7R2A332M | FK18X7R2A332M | |
| 4.700 | ±10% | FK28X7R2A472K | FK18X7R2A472K | |
| 4,700 | ±20% | FK28X7R2A472M | FK18X7R2A472M | |
| 6 900 | ±10% | FK28X7R2A682K | FK18X7R2A682K | |
| 6,800 | ±20% | FK28X7R2A682M | FK18X7R2A682M | |
| 10,000 | ±10% | FK28X7R2A103K | FK18X7R2A103K | |
| 10,000 | ±20% | FK28X7R2A103M | FK18X7R2A103M | |

[•] All specifications are subject to change without notice.

FK24 AND FK14 TYPES SHAPES AND DIMENSIONS



RATED VOLTAGE Edc: 100V



CAPACITANCE RANGES: CLASS 1 (TEMPERATURE COMPENSATION) TEMPERATURE CHARACTERISTICS: C0G(0±30ppm/°C)

Part No. Capacitance Tolerance (pF) FK24 type FK14 type ±5% FK24C0G2A102J FK14C0G2A102J 1,000 ±10% FK24C0G2A102K FK14C0G2A102K ±5% FK24C0G2A122J FK14C0G2A122J 1,200 ±10% FK24C0G2A122K FK14C0G2A122K ±5% FK24C0G2A152J FK14C0G2A152J 1,500 ±10% FK14C0G2A152K FK24C0G2A152K ±5% FK24C0G2A182J FK14C0G2A182J 1,800 ±10% FK24C0G2A182K FK14C0G2A182K ±5% FK24C0G2A222J FK14C0G2A222J 2,200 ±10% FK24C0G2A222K FK14C0G2A222K ±5% FK24C0G2A272J FK14C0G2A272J 2.700 ±10% FK24C0G2A272K FK14C0G2A272K ±5% FK24C0G2A332J FK14C0G2A332J 3,300 ±10% FK24C0G2A332K FK14C0G2A332K FK14C0G2A392J ±5% FK24C0G2A392J 3,900 ±10% FK24C0G2A392K FK14C0G2A392K FK14C0G2A472J FK24C0G2A472J ±5% 4,700 ±10% FK24C0G2A472K FK14C0G2A472K

RATED VOLTAGE Edc: 250V

| _ | | | | |
|-------------|-----------|---------------|---------------|--|
| Capacitance | Tolerance | Part No. | | |
| (pF) | | FK24 type | FK14 type | |
| 820 | ±5% | FK24C0G2E821J | FK14C0G2E821J | |
| 020 | ±10% | FK24C0G2E821K | FK14C0G2E821K | |
| 1 000 | ±5% | FK24C0G2E102J | FK14C0G2E102J | |
| 1,000 | ±10% | FK24C0G2E102K | FK14C0G2E102K | |
| 1 200 | ±5% | FK24C0G2E122J | FK14C0G2E122J | |
| 1,200 | ±10% | FK24C0G2E122K | FK14C0G2E122K | |
| 1.500 | ±5% | FK24C0G2E152J | FK14C0G2E152J | |
| 1,500 | ±10% | FK24C0G2E152K | FK14C0G2E152K | |
| 1,800 | ±5% | FK24C0G2E182J | FK14C0G2E182J | |
| 1,600 | ±10% | FK24C0G2E182K | FK14C0G2E182K | |
| 2,200 | ±5% | FK24C0G2E222J | FK14C0G2E222J | |
| 2,200 | ±10% | FK24C0G2E222K | FK14C0G2E222K | |
| 0.700 | ±5% | FK24C0G2E272J | FK14C0G2E272J | |
| 2,700 | ±10% | FK24C0G2E272K | FK14C0G2E272K | |

CAPACITANCE RANGES: CLASS 2

TEMPERATURE CHARACTERISTICS: X7R(±15%)

RATED VOLTAGE Edc: 100V

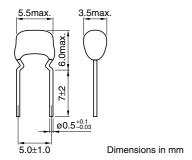
| Capacitance | Talawanaa | Part No. | | |
|-------------|-----------|---------------|---------------|--|
| (pF) | Tolerance | FK24 type | FK14 type | |
| 1.000 | ±10% | FK24X7R2A102K | FK14X7R2A102K | |
| 1,000 | ±20% | FK24X7R2A102M | FK14X7R2A102M | |
| 1 500 | ±10% | FK24X7R2A152K | FK14X7R2A152K | |
| 1,500 | ±20% | FK24X7R2A152M | FK14X7R2A152M | |
| 2,200 | ±10% | FK24X7R2A222K | FK14X7R2A222K | |
| 2,200 | ±20% | FK24X7R2A222M | FK14X7R2A222M | |
| 3,300 | ±10% | FK24X7R2A332K | FK14X7R2A332K | |
| 3,300 | ±20% | FK24X7R2A332M | FK14X7R2A332M | |
| 4,700 | ±10% | FK24X7R2A472K | FK14X7R2A472K | |
| 4,700 | ±20% | FK24X7R2A472M | FK14X7R2A472M | |
| 6 900 | ±10% | FK24X7R2A682K | FK14X7R2A682K | |
| 6,800 | ±20% | FK24X7R2A682M | FK14X7R2A682M | |
| 10,000 | ±10% | FK24X7R2A103K | FK14X7R2A103K | |
| 10,000 | ±20% | FK24X7R2A103M | FK14X7R2A103M | |
| 15,000 | ±10% | FK24X7R2A153K | FK14X7R2A153K | |
| 15,000 | ±20% | FK24X7R2A153M | FK14X7R2A153M | |
| 22 000 | ±10% | FK24X7R2A223K | FK14X7R2A223K | |
| 22,000 | ±20% | FK24X7R2A223M | FK14X7R2A223M | |
| 33,000 | ±10% | FK24X7R2A333K | FK14X7R2A333K | |
| 33,000 | ±20% | FK24X7R2A333M | FK14X7R2A333M | |
| 47,000 | ±10% | FK24X7R2A473K | FK14X7R2A473K | |
| 47,000 | ±20% | FK24X7R2A473M | FK14X7R2A473M | |
| | | | | |

| (pF) Interaction FK24 type FK14 type 1,000 ±10% FK24X7R2E102K FK14X7R2E102K ±20% FK24X7R2E102M FK14X7R2E102M 1,500 ±10% FK24X7R2E152K FK14X7R2E152K ±20% FK24X7R2E152M FK14X7R2E152M 2,200 ±10% FK24X7R2E222K FK14X7R2E222K ±20% FK24X7R2E332K FK14X7R2E332K 3,300 ±10% FK24X7R2E332K FK14X7R2E332M 4,700 ±10% FK24X7R2E472K FK14X7R2E472K ±20% FK24X7R2E472M FK14X7R2E472M 6,800 ±10% FK24X7R2E682K FK14X7R2E682K ±20% FK24X7R2E682M FK14X7R2E682M 10,000 ±10% FK24X7R2E103K FK14X7R2E103K ±20% FK24X7R2E153K FK14X7R2E153K ±20% FK24X7R2E153M FK14X7R2E153M ±10% FK24X7R2E153M FK14X7R2E153M ±20% FK24X7R2E153M FK14X7R2E223K ±20% FK24X7R2E223M FK14X7R2E223M <th>Capacitance</th> <th rowspan="2">Tolerance</th> <th colspan="3">Part No.</th> | Capacitance | Tolerance | Part No. | | |
|--|-------------|-----------|---------------|---------------|--|
| 1,000 | (pF) | | FK24 type | FK14 type | |
| 1,500 ±10% FK24X7R2E102M FK14X7R2E102M ±10% FK24X7R2E152K FK14X7R2E152K ±20% FK24X7R2E152M FK14X7R2E152M 2,200 ±10% FK24X7R2E222K FK14X7R2E222K ±20% FK24X7R2E222M FK14X7R2E222M 3,300 ±10% FK24X7R2E332K FK14X7R2E332K ±20% FK24X7R2E332M FK14X7R2E332M 4,700 ±10% FK24X7R2E472K FK14X7R2E472K ±20% FK24X7R2E472M FK14X7R2E472M 6,800 ±10% FK24X7R2E682K FK14X7R2E682K ±20% FK24X7R2E682M FK14X7R2E682M 10,000 ±10% FK24X7R2E103K FK14X7R2E103K ±20% FK24X7R2E103M FK14X7R2E103M 15,000 ±10% FK24X7R2E153K FK14X7R2E153M ±20% FK24X7R2E153M FK14X7R2E153M ±10% FK24X7R2E153M FK14X7R2E153M ±10% FK24X7R2E153M FK14X7R2E153M ±10% FK24X7R2E153M FK14X7R2E153M | 1.000 | ±10% | FK24X7R2E102K | FK14X7R2E102K | |
| 1,500 ±20% FK24X7R2E152M FK14X7R2E152M 2,200 ±10% FK24X7R2E222K FK14X7R2E222K 2,200 ±20% FK24X7R2E222M FK14X7R2E222M 3,300 ±10% FK24X7R2E332K FK14X7R2E332K 4,700 ±10% FK24X7R2E332M FK14X7R2E332M 4,700 ±10% FK24X7R2E472K FK14X7R2E472K 4,700 ±10% FK24X7R2E472M FK14X7R2E472M 6,800 ±10% FK24X7R2E682K FK14X7R2E682K ±20% FK24X7R2E682M FK14X7R2E682M 10,000 ±10% FK24X7R2E103K FK14X7R2E103K ±20% FK24X7R2E103M FK14X7R2E103M 15,000 ±10% FK24X7R2E153K FK14X7R2E153M ±20% FK24X7R2E153M FK14X7R2E153M ±20% FK24X7R2E153M FK14X7R2E223K | 1,000 | ±20% | FK24X7R2E102M | FK14X7R2E102M | |
| 2,200 ±10% FK24X7R2E152M FK14X7R2E152M ±10% FK24X7R2E222K FK14X7R2E222K ±20% FK24X7R2E222M FK14X7R2E222M 3,300 ±10% FK24X7R2E332K FK14X7R2E332K ±20% FK24X7R2E332M FK14X7R2E332M 4,700 ±10% FK24X7R2E472K FK14X7R2E472K ±20% FK24X7R2E472M FK14X7R2E472M 6,800 ±10% FK24X7R2E682K FK14X7R2E682K ±20% FK24X7R2E682M FK14X7R2E682M 10,000 ±10% FK24X7R2E103K FK14X7R2E103K ±20% FK24X7R2E103M FK14X7R2E103M 15,000 ±10% FK24X7R2E153K FK14X7R2E153K ±20% FK24X7R2E153M FK14X7R2E153M ±20% FK24X7R2E153M FK14X7R2E153M ±10% FK24X7R2E153M FK14X7R2E153M ±10% FK24X7R2E153M FK14X7R2E153M | 1 500 | ±10% | FK24X7R2E152K | FK14X7R2E152K | |
| 2,200 ±20% FK24X7R2E222M FK14X7R2E222M 3,300 ±10% FK24X7R2E332K FK14X7R2E332K ±20% FK24X7R2E332M FK14X7R2E332M 4,700 ±10% FK24X7R2E472K FK14X7R2E472K ±20% FK24X7R2E472M FK14X7R2E472M 6,800 ±10% FK24X7R2E682K FK14X7R2E682K ±20% FK24X7R2E682M FK14X7R2E682M 10,000 ±10% FK24X7R2E103K FK14X7R2E103K ±20% FK24X7R2E103M FK14X7R2E103M 15,000 ±10% FK24X7R2E153K FK14X7R2E153M ±20% FK24X7R2E153M FK14X7R2E153M ±20% FK24X7R2E153M FK14X7R2E153M ±20% FK24X7R2E153M FK14X7R2E223K | 1,500 | ±20% | FK24X7R2E152M | FK14X7R2E152M | |
| 3,300 ±10% FK24X7R2E222M FK14X7R2E222M ±10% FK24X7R2E332K FK14X7R2E332K ±20% FK24X7R2E332M FK14X7R2E332M 4,700 ±10% FK24X7R2E472K FK14X7R2E472K ±20% FK24X7R2E472M FK14X7R2E472M 6,800 ±10% FK24X7R2E682K FK14X7R2E682K ±20% FK24X7R2E682M FK14X7R2E682M 10,000 ±10% FK24X7R2E103K FK14X7R2E103K ±20% FK24X7R2E103M FK14X7R2E103M 15,000 ±10% FK24X7R2E153K FK14X7R2E153K ±20% FK24X7R2E153M FK14X7R2E153M ±10% FK24X7R2E153M FK14X7R2E153M ±10% FK24X7R2E123K FK14X7R2E223K | 2 200 | ±10% | FK24X7R2E222K | FK14X7R2E222K | |
| 3,300 ±20% FK24X7R2E332M FK14X7R2E332M 4,700 ±10% FK24X7R2E472K FK14X7R2E472K ±20% FK24X7R2E472M FK14X7R2E472M 6,800 ±10% FK24X7R2E682K FK14X7R2E682K ±20% FK24X7R2E682M FK14X7R2E682M 10,000 ±10% FK24X7R2E103K FK14X7R2E103K ±20% FK24X7R2E103M FK14X7R2E103M 15,000 ±10% FK24X7R2E153K FK14X7R2E153K ±20% FK24X7R2E153M FK14X7R2E153M ±10% FK24X7R2E153M FK14X7R2E153M ±20% FK24X7R2E153M FK14X7R2E223K | 2,200 | ±20% | FK24X7R2E222M | FK14X7R2E222M | |
| ±20% FK24X/R2E332M FK14X/R2E332M 4,700 ±10% FK24X7R2E472K FK14X7R2E472K ±20% FK24X7R2E472M FK14X7R2E472M 6,800 ±10% FK24X7R2E682K FK14X7R2E682K ±20% FK24X7R2E682M FK14X7R2E682M 10,000 ±10% FK24X7R2E103K FK14X7R2E103K ±20% FK24X7R2E103M FK14X7R2E153M 15,000 ±10% FK24X7R2E153M FK14X7R2E153M ±20% FK24X7R2E153M FK14X7R2E223K | 2 200 | ±10% | FK24X7R2E332K | FK14X7R2E332K | |
| 4,700 ±20% FK24X7R2E472M FK14X7R2E472M 6,800 ±10% FK24X7R2E682K FK14X7R2E682K ±20% FK24X7R2E682M FK14X7R2E682M 10,000 ±10% FK24X7R2E103K FK14X7R2E103K ±20% FK24X7R2E103M FK14X7R2E103M 15,000 ±10% FK24X7R2E153K FK14X7R2E153M ±20% FK24X7R2E153M FK14X7R2E153M ±10% FK24X7R2E223K FK14X7R2E223K | 3,300 | ±20% | FK24X7R2E332M | FK14X7R2E332M | |
| ±20% FK24X7R2E472M FK14X7R2E472M 6,800 ±10% FK24X7R2E682K FK14X7R2E682K ±20% FK24X7R2E682M FK14X7R2E682M 10,000 ±10% FK24X7R2E103K FK14X7R2E103K ±20% FK24X7R2E103M FK14X7R2E103M 15,000 ±10% FK24X7R2E153K FK14X7R2E153M ±20% FK24X7R2E153M FK14X7R2E223K | 4 700 | ±10% | FK24X7R2E472K | FK14X7R2E472K | |
| 6,800 ±20% FK24X7R2E682M FK14X7R2E682M 10,000 ±10% FK24X7R2E103K FK14X7R2E103K ±20% FK24X7R2E103M FK14X7R2E103M 15,000 ±10% FK24X7R2E153K FK14X7R2E153K ±20% FK24X7R2E153M FK14X7R2E153M ±10% FK24X7R2E123K FK14X7R2E223K | 4,700 | ±20% | FK24X7R2E472M | FK14X7R2E472M | |
| 10,000 ±10% FK24X7R2E682M FK14X7R2E682M ±10% FK24X7R2E103K FK14X7R2E103K ±20% FK24X7R2E103M FK14X7R2E103M 15,000 ±10% FK24X7R2E153K FK14X7R2E153K ±20% FK24X7R2E153M FK14X7R2E153M ±10% FK24X7R2E223K FK14X7R2E223K | 6 900 | ±10% | FK24X7R2E682K | FK14X7R2E682K | |
| 10,000 ±20% FK24X7R2E103M FK14X7R2E103M 15,000 ±10% FK24X7R2E153K FK14X7R2E153K ±20% FK24X7R2E153M FK14X7R2E153M ±10% FK24X7R2E223K FK14X7R2E223K | 0,000 | ±20% | FK24X7R2E682M | FK14X7R2E682M | |
| ±20% FK24X7R2E103M FK14X7R2E103M 15,000 ±10% FK24X7R2E153K FK14X7R2E153K ±20% FK24X7R2E153M FK14X7R2E153M ±10% FK24X7R2E223K FK14X7R2E223K | 10.000 | ±10% | FK24X7R2E103K | FK14X7R2E103K | |
| 15,000 ±20% FK24X7R2E153M FK14X7R2E153M 22,000 ±10% FK24X7R2E223K FK14X7R2E223K | 10,000 | ±20% | FK24X7R2E103M | FK14X7R2E103M | |
| ±20% FK24X7R2E153M FK14X7R2E153M ±10% FK24X7R2E223K FK14X7R2E223K | 15,000 | ±10% | FK24X7R2E153K | FK14X7R2E153K | |
| 22 000 | 13,000 | ±20% | FK24X7R2E153M | FK14X7R2E153M | |
| ±20% FK24X7R2E223M FK14X7R2E223M | 22.000 | ±10% | FK24X7R2E223K | FK14X7R2E223K | |
| | 22,000 | ±20% | FK24X7R2E223M | FK14X7R2E223M | |

[•] All specifications are subject to change without notice.

FK26 TYPE

SHAPES AND DIMENSIONS



CAPACITANCE RANGES: CLASS 1 (TEMPERATURE COMPENSATION) TEMPERATURE CHARACTERISTICS: C0G(0±30ppm/°C)

RATED VOLTAGE Edc: 100V

| Capacitance | Tolerance | Part No. |
|-------------|-----------|---------------|
| (pF) | | FK26 type |
| 3.900 | ±5% | FK26C0G2A392J |
| 3,900 | ±10% | FK26C0G2A392K |
| 4.700 | ±5% | FK26C0G2A472J |
| 4,700 | ±10% | FK26C0G2A472K |
| 5,600 | ±5% | FK26C0G2A562J |
| 5,000 | ±10% | FK26C0G2A562K |
| 6 900 | ±5% | FK26C0G2A682J |
| 6,800 | ±10% | FK26C0G2A682K |
| 8,200 | ±5% | FK26C0G2A822J |
| | ±10% | FK26C0G2A822K |
| 10,000 | ±5% | FK26C0G2A103J |
| | ±10% | FK26C0G2A103K |
| | | |

RATED VOLTAGE Edc: 250V

| Capacitance | Tolerance | Part No. |
|-------------|-----------|---------------|
| (pF) | | FK26 type |
| 3.300 | ±5% | FK26C0G2E332J |
| 3,300 | ±10% | FK26C0G2E332K |
| 3.900 | ±5% | FK26C0G2E392J |
| 3,900 | ±10% | FK26C0G2E392K |
| 4.700 | ±5% | FK26C0G2E472J |
| 4,700 | ±10% | FK26C0G2E472K |
| 5.600 | ±5% | FK26C0G2E562J |
| 5,600 | ±10% | FK26C0G2E562K |
| 6,800 | ±5% | FK26C0G2E682J |
| | ±10% | FK26C0G2E682K |
| 8,200 | ±5% | FK26C0G2E822J |
| | ±10% | FK26C0G2E822K |

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

| RAIED VOL | IAGE EUC. | |
|-------------|-----------|---------------|
| Capacitance | Tolerance | Part No. |
| (pF) | / | FK26 type |
| 100 | ±5% | FK26C0G2J101J |
| | ±10% | FK26C0G2J101K |
| 120 | ±5% | FK26C0G2J121J |
| | ±10% | FK26C0G2J121K |
| 150 | ±5% | FK26C0G2J151J |
| 100 | ±10% | FK26C0G2J151K |
| 180 | ±5% | FK26C0G2J181J |
| 100 | ±10% | FK26C0G2J181K |
| 220 | ±5% | FK26C0G2J221J |
| 220 | ±10% | FK26C0G2J221K |
| 270 | ±5% | FK26C0G2J271J |
| 270 | ±10% | FK26C0G2J271K |
| 220 | ±5% | FK26C0G2J331J |
| 330 | ±10% | FK26C0G2J331K |
| 390 | ±5% | FK26C0G2J391J |
| 390 | ±10% | FK26C0G2J391K |
| 470 | ±5% | FK26C0G2J471J |
| 470 | ±10% | FK26C0G2J471K |
| 560 | ±5% | FK26C0G2J561J |
| 560 | ±10% | FK26C0G2J561K |
| 680 | ±5% | FK26C0G2J681J |
| 000 | ±10% | FK26C0G2J681K |
| 000 | ±5% | FK26C0G2J821J |
| 820 | ±10% | FK26C0G2J821K |
| 1.000 | ±5% | FK26C0G2J102J |
| 1,000 | ±10% | FK26C0G2J102K |
| 1 000 | ±5% | FK26C0G2J122J |
| 1,200 | ±10% | FK26C0G2J122K |
| | ±5% | FK26C0G2J152J |
| 1,500 | ±10% | FK26C0G2J152K |
| | ±5% | FK26C0G2J182J |
| 1,800 | ±10% | FK26C0G2J182K |
| | ±5% | FK26C0G2J222J |
| 2,200 | ±10% | FK26C0G2J222K |
| | ±5% | FK26C0G2J272J |
| 2,700 | ±10% | FK26C0G2J272K |
| 3,300 | ±5% | FK26C0G2J332J |
| | ±10% | FK26C0G2J332K |
| | -10/0 | I RESOURCE |

[•] All specifications are subject to change without notice.



CAPACITANCE RANGES: CLASS 2

TEMPERATURE CHARACTERISTICS: X7R(±15%)

RATED VOLTAGE Edc: 100V

| Capacitance | itance Tolerance | Part No. |
|-------------|------------------|---------------|
| (pF) | | FK26 type |
| 33,000 | ±10% | FK26X7R2A333K |
| 33,000 | ±20% | FK26X7R2A333M |
| 47.000 | ±10% | FK26X7R2A473K |
| 47,000 | ±20% | FK26X7R2A473M |
| 68.000 | ±10% | FK26X7R2A683K |
| 66,000 | ±20% | FK26X7R2A683M |
| 100,000 | ±10% | FK26X7R2A104K |
| | ±20% | FK26X7R2A104M |
| 150,000 | ±10% | FK26X7R2A154K |
| | ±20% | FK26X7R2A154M |

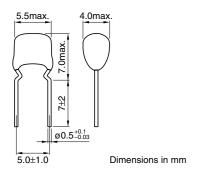
RATED VOLTAGE Edc: 250V

| Capacitance | Tolerance | Part No. |
|-------------|-----------|---------------|
| (pF) | | FK26 type |
| 15 000 | ±10% | FK26X7R2E153K |
| 15,000 | ±20% | FK26X7R2E153M |
| 22.000 | ±10% | FK26X7R2E223K |
| 22,000 | ±20% | FK26X7R2E223M |
| 33.000 | ±10% | FK26X7R2E333K |
| 33,000 | ±20% | FK26X7R2E333M |
| 47,000 | ±10% | FK26X7R2E473K |
| | ±20% | FK26X7R2E473M |
| 68,000 | ±10% | FK26X7R2E683K |
| | ±20% | FK26X7R2E683M |
| 100,000 | ±10% | FK26X7R2E104K |
| | ±20% | FK26X7R2E104M |

| Capacitance (pF) | Tolerance | Part No. |
|------------------|-----------|---------------|
| | | FK26 type |
| 1.000 | ±10% | FK26X7R2J102K |
| 1,000 | ±20% | FK26X7R2J102M |
| 1 500 | ±10% | FK26X7R2J152K |
| 1,500 | ±20% | FK26X7R2J152M |
| 2 200 | ±10% | FK26X7R2J222K |
| 2,200 | ±20% | FK26X7R2J222M |
| 3,300 | ±10% | FK26X7R2J332K |
| 3,300 | ±20% | FK26X7R2J332M |
| 4,700 | ±10% | FK26X7R2J472K |
| 4,700 | ±20% | FK26X7R2J472M |
| 6,800 | ±10% | FK26X7R2J682K |
| 0,000 | ±20% | FK26X7R2J682M |
| 10.000 | ±10% | FK26X7R2J103K |
| 10,000 | ±20% | FK26X7R2J103M |
| 15 000 | ±10% | FK26X7R2J153K |
| 15,000 | ±20% | FK26X7R2J153M |
| 22,000 | ±10% | FK26X7R2J223K |
| | ±20% | FK26X7R2J223M |
| 33,000 | ±10% | FK26X7R2J333K |
| | ±20% | FK26X7R2J333M |
| | | |

[•] All specifications are subject to change without notice.

FK20 TYPE SHAPES AND DIMENSIONS



CAPACITANCE RANGES: CLASS 1 (TEMPERATURE COMPENSATION) TEMPERATURE CHARACTERISTICS: C0G(0±30ppm/°C)

RATED VOLTAGE Edc: 100V

| Capacitance | Tolerance | Part No. |
|-------------|-----------|---------------|
| (pF) | | FK20 type |
| 15.000 | ±5% | FK20C0G2A153J |
| 15,000 | ±10% | FK20C0G2A153K |
| 22,000 | ±5% | FK20C0G2A223J |
| | ±10% | FK20C0G2A223K |
| 33,000 | ±5% | FK20C0G2A333J |
| | ±10% | FK20C0G2A333K |

RATED VOLTAGE Edc: 250V

| Capacitance | Tolerance | Part No. |
|-------------|-----------|---------------|
| (pF) | | FK20 type |
| 10,000 | ±5% | FK20C0G2E103J |
| | ±10% | FK20C0G2E103K |
| 15,000 | ±5% | FK20C0G2E153J |
| | ±10% | FK20C0G2E153K |

RATED VOLTAGE Edc: 630V

| Capacitance | Tolerance | Part No. |
|-------------|-----------|---------------|
| (pF) | | FK20 type |
| 3.900 | ±5% | FK20C0G2J392J |
| 3,900 | ±10% | FK20C0G2J392K |
| 4.700 | ±5% | FK20C0G2J472J |
| 4,700 | ±10% | FK20C0G2J472K |
| 5,600 | ±5% | FK20C0G2J562J |
| | ±10% | FK20C0G2J562K |
| 6,800 | ±5% | FK20C0G2J682J |
| | ±10% | FK20C0G2J682K |

CAPACITANCE RANGES: CLASS 2

TEMPERATURE CHARACTERISTICS: X7R(±15%)

RATED VOLTAGE Edc: 100V

| Capacitance | Tolerance | Part No. |
|-------------|-----------|---------------|
| (pF) | | FK20 type |
| 330,000 | ±10% | FK20X7R2A334K |
| | ±20% | FK20X7R2A334M |
| 470,000 | ±10% | FK20X7R2A474K |
| | ±20% | FK20X7R2A474M |

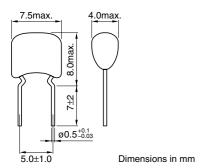
RATED VOLTAGE Edc: 250V

| Capacitance | Tolerance | Part No. |
|-------------|-----------|---------------|
| (pF) | | FK20 type |
| 100,000 | ±10% | FK20X7R2E104K |
| | ±20% | FK20X7R2E104M |
| 150,000 | ±10% | FK20X7R2E154K |
| | ±20% | FK20X7R2E154M |
| 220,000 | ±10% | FK20X7R2E224K |
| | ±20% | FK20X7R2E224M |

| Capacitance | e Tolerance | Part No. |
|-------------|-------------|---------------|
| (pF) | | FK20 type |
| 47,000 | ±10% | FK20X7R2J473K |
| | ±20% | FK20X7R2J473M |
| 68,000 | ±10% | FK20X7R2J683K |
| | +20% | FK20X7B2J683M |

[•] All specifications are subject to change without notice.

FK22 TYPE SHAPES AND DIMENSIONS



CAPACITANCE RANGES: CLASS 1 (TEMPERATURE COMPENSATION) TEMPERATURE CHARACTERISTICS: C0G(0±30ppm/°C)

RATED VOLTAGE Edc: 100V

| Capacitance (pF) | Tolerance | Part No. |
|------------------|-----------|---------------|
| | | FK22 type |
| 47,000 | ±5% | FK22C0G2A473J |
| | ±10% | FK22C0G2A473K |
| 68,000 | ±5% | FK22C0G2A683J |
| | ±10% | FK22C0G2A683K |
| 100,000 | ±5% | FK22C0G2A104J |
| | ±10% | FK22C0G2A104K |
| | | |

RATED VOLTAGE Edc: 250V

| Capacitance (pF) | Tolerance | Part No. FK22 type |
|------------------|-----------|-----------------------|
| 22,000 | ±5% | FK22C0G2E223J |
| | ±10% | FK22C0G2E223K |
| 33,000 | ±5% | FK22C0G2E333J |
| | ±10% | FK22C0G2E333K |
| 47,000 | ±5% | FK22C0G2E473J |
| | ±10% | FK22C0G2E473K |

RATED VOLTAGE Edc: 630V

| Capacitance (pF) | Tolerance | Part No. |
|------------------|-----------|---------------|
| | | FK22 type |
| 8,200 | ±5% | FK22C0G2J822J |
| | ±10% | FK22C0G2J822K |
| 10,000 | ±5% | FK22C0G2J103J |
| | ±10% | FK22C0G2J103K |
| 15,000 | ±5% | FK22C0G2J153J |
| | ±10% | FK22C0G2J153K |
| 22,000 | ±5% | FK22C0G2J223J |
| | ±10% | FK22C0G2J223K |

CAPACITANCE RANGES: CLASS 2

TEMPERATURE CHARACTERISTICS: X7R(±15%)

RATED VOLTAGE Edc: 100V

| Capacitance | Tolerance | Part No. |
|-------------|-----------|---------------|
| (pF) | | FK22 type |
| 680,000 | ±10% | FK22X7R2A684K |
| | ±20% | FK22X7R2A684M |
| 1,000,000 | ±10% | FK22X7R2A105K |
| [1µF] | ±20% | FK22X7R2A105M |

RATED VOLTAGE Edc: 250V

| Capacitance (pF) | Tolerance | Part No. |
|------------------|-----------|---------------|
| | | FK22 type |
| 150,000 | ±10% | FK22X7R2E154K |
| | ±20% | FK22X7R2E154M |
| 220,000 | ±10% | FK22X7R2E224K |
| | ±20% | FK22X7R2E224M |
| 330,000 | ±10% | FK22X7R2E334K |
| | ±20% | FK22X7R2E334M |
| 470,000 | ±10% | FK22X7R2E474K |
| | ±20% | FK22X7R2E474M |

| Capacitance | Tolerance | Part No. |
|-------------|-----------|---------------|
| (pF) | Tolerance | FK22 type |
| 68,000 | ±10% | FK22X7R2J683K |
| | ±20% | FK22X7R2J683M |
| 100,000 | ±10% | FK22X7R2J104K |
| | ±20% | FK22X7R2J104M |

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

[•] All specifications are subject to change without notice.