WIMA FKP 02

Polypropylene (PP) Film and Foil Capacitors for Pulse Applications in PCM 2.5 mm

Special Features

- Pulse duty construction
- PCM 2.5 mm
- Close tolerances up to ±2.5%
- Very low dissipation factor
- Negative capacitance change versus temperature
- Very low dielectric absorption
- According to RoHS 2002/95/EC

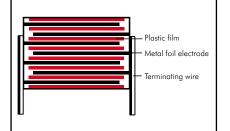
Typical Applications

For high frequency applications e.g.

- Sample and hold
- Timing
- LC-Filtering
- Oscillating circuits
- Audio equipment

Construction

Dielectric: Polypropylene (PP) film Capacitor electrodes: Metal foil Internal construction:



Encapsulation:

Solvent-resistant, flame-retardant plastic case with epoxy resin seal, UL 94 V-0

Terminations:

Tinned wire.

Marking:

Colour: Red. Marking: Black. Epoxy resin seal: Yellow

Electrical Data

Capacitance range: 100 pF to 0.01 µF (E12-values on request) Rated voltages:

63 VDC, 100 VDC, 250 VDC, 400 VDC Capacitance tolerances:

±10%, ±5%, ±2.5% Operating temperature range:

 -55° C to $+100^{\circ}$ C Test specifications:

In accordance with IEC 60384-13 and EN 131800

Climatic test category: 55/100/21 in accordance with IEC

Insulation resistance at +20° C: $\geq 5 \times 10^5 M\Omega$ (mean value: 1 x 10⁶ M Ω) Measuring voltage:

 $\begin{array}{l} U_r = \ 63 \ \forall: \ U_{test} = \ 50 \ \forall/1 \ \text{min.} \\ U_r \geqslant \ 100 \ \forall: \ U_{test} = \ 100 \ \forall/1 \ \text{min.} \\ \hline \textbf{Test voltage: } 2 \ U_r, \ 2 \ \text{sec.} \end{array}$

Maximum pulse rise time:

1000 V/µsec for pulses equal to the rated voltage

Mechanical Tests

Pull test on pins: 10 N in direction of pins according to IEC 60068-2-21

Vibration:

6 hours at 10...2000 Hz and 0.75 mm displacement amplitude or 10 g in accordance with IEC 60068-2-6 **Low air density:**

1kPa = 10 mbar in accordance with IEC 60068-2-13

Bump test: 4000 bumps at 390 m/sec² in

accordance with IEC 60068-2-29

Dielectric absorption: 0.05%

Temperature coefficient:

–200 x 10⁻⁶/° C (typical)

Dissipation factors at +20° C: tan δ

| at f | C ≤ 0.01 µF |
|---------|-------------------------|
| 1 kHz | $\leq 4 \times 10^{-4}$ |
| 10 kHz | $\leq 4 \times 10^{-4}$ |
| 100 kHz | $\leq 6 \times 10^{-4}$ |

Voltage derating:

A voltage derating factor of 1.35 % per K must be applied from +85° C for DC voltages and from +75° C for AC voltages.

Reliability:

Operational life > 300 000 hours Failure rate < 5 fit (0.5 x U_r and 40° C)

Packing

Available taped and reeled.

Detailed taping information and graphs at the end of the catalogue.

For further details and graphs please refer to Technical Information.



WIMA FKP 02



Continuation

General Data

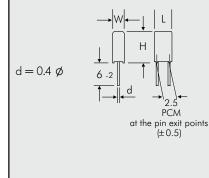
| Cara a citara co | | | 6 | 3 VDC/ | 40 VAC* | | | 1(| DO VDC | /63 VAC* |
|------------------|-----|-----|-----------------------|------------------------------|----------------|-----|-----|-----|--------|----------------|
| Capacitance | W | H | L | PCM** | Part number | W | Н | L | PCM** | Part number |
| 100 pF | 2.5 | 7 | 4.6 | 2.5 | FKP0C001000B00 | 2.5 | 7 | 4.6 | 2.5 | FKP0D001000B00 |
| 150 " | 2.5 | 7 | 4.6 | 2.5 | FKP0C001500B00 | 2.5 | 7 | 4.6 | 2.5 | FKP0D001500B00 |
| 220 " | 2.5 | 7 | 4.6 | 2.5 | FKP0C002200B00 | 2.5 | 7 | 4.6 | 2.5 | FKP0D002200B00 |
| 330 " | 2.5 | 7 | 4.6 | 2.5 | FKP0C003300B00 | 2.5 | 7 | 4.6 | 2.5 | FKP0D003300B00 |
| 470 " | 2.5 | 7 | 4.6 | 2.5 | FKP0C004700B00 | 2.5 | 7 | 4.6 | 2.5 | FKP0D004700B00 |
| 680 " | 2.5 | 7 | 4.6 | 2.5 | FKP0C006800B00 | 2.5 | 7 | 4.6 | 2.5 | FKP0D006800B00 |
| 1000 pF | 2.5 | 7 | 4.6 | 2.5 | FKP0C011000B00 | 2.5 | 7 | 4.6 | 2.5 | FKP0D011000B00 |
| 1500 " | 2.5 | 7 | 4.6 | 2.5 | FKPOC011500B00 | 2.5 | 7 | 4.6 | 2.5 | FKPOD011500B00 |
| 2200 " | 3 | 7.5 | 4.6 | 2.5 | FKP0C012200C00 | 3 | 7.5 | 4.6 | 2.5 | FKP0D012200C00 |
| 3300 " | 3.8 | 8.5 | 4.6 | 2.5 | FKP0C013300D00 | 3.8 | 8.5 | 4.6 | 2.5 | FKP0D013300D00 |
| 4700 " | 4.6 | 9 | 4.6 | 2.5 | FKP0C014700E00 | 4.6 | 9 | 4.6 | 2.5 | FKP0D014700E00 |
| 6800 " | 4.6 | 9 | 4.6 | 2.5 | FKP0C016800E00 | 4.6 | 9 | 4.6 | 2.5 | FKP0D016800E00 |
| 0.01 µF | 5.5 | 10 | 4.6 | 2.5 | FKP0C021000F00 | 5.5 | 10 | 4.6 | 2.5 | FKP0D021000F00 |
| | | | | | | | | | | |
| Causaitan | | | 25 | 0 VDC/ | 160 VAC* | | | 40 | 0 VDC/ | 200 VAC* |
| Capacitance | W | Н | H L PCM** Part number | | Part number | W | Н | L | PCM** | Part number |
| 100 pE | 25 | 7 | 4.6 | 2.5 EK POEOO 1 000B00 | | 25 | 7 | 4.6 | 25 | |

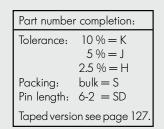
| | ٧V | 11 | L | | | ~ ~ | 11 | L | | |
|---------|-----|-----|-----|-----|----------------|-----|-----|-----|-----|----------------|
| 100 pF | 2.5 | 7 | 4.6 | 2.5 | FKP0F001000B00 | 2.5 | 7 | 4.6 | 2.5 | FKP0G001000B00 |
| 150 " | 2.5 | 7 | 4.6 | 2.5 | FKP0F001500B00 | 2.5 | 7 | 4.6 | 2.5 | FKP0G001500B00 |
| 220 " | 2.5 | 7 | 4.6 | 2.5 | FKP0F002200B00 | 2.5 | 7 | 4.6 | 2.5 | FKP0G002200B00 |
| 330 " | 2.5 | 7 | 4.6 | 2.5 | FKP0F003300B00 | 2.5 | 7 | 4.6 | 2.5 | FKP0G003300B00 |
| 470 " | 2.5 | 7 | 4.6 | 2.5 | FKP0F004700B00 | 2.5 | 7 | 4.6 | 2.5 | FKP0G004700B00 |
| 680 " | 2.5 | 7 | 4.6 | 2.5 | FKP0F006800B00 | 3 | 7.5 | 4.6 | 2.5 | FKP0G006800C00 |
| 1000 pF | 2.5 | 7 | 4.6 | 2.5 | FKP0F011000B00 | 3.8 | 8.5 | 4.6 | 2.5 | FKP0G011000D00 |
| 1500 " | 3 | 7.5 | 4.6 | 2.5 | FKP0F011500C00 | 4.6 | 9 | 4.6 | 2.5 | FKP0G011500E00 |
| 2200 " | 3.8 | 8.5 | 4.6 | 2.5 | FKP0F012200D00 | 4.6 | 9 | 4.6 | 2.5 | FKP0G012200E00 |
| 3300 " | 4.6 | 9 | 4.6 | 2.5 | FKP0F013300E00 | 5.5 | 10 | 4.6 | 2.5 | FKP0G013300F00 |
| 4700 " | 5.5 | 10 | 4.6 | 2.5 | FKP0F014700F00 | | | | | |
| | | | | | | | | | | |

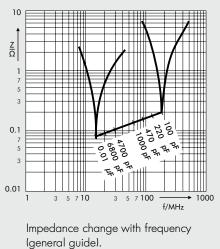
* AC voltage: f \leq 400 Hz; 1.4 x U $_{rms}$ + UDC \leq U $_{r}$

** PCM = Printed circuit module = pin spacing









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The values of the WIMA FKS 02 and WIMA FKM 02 ranges according to the main catalogue 2009 are still available on request.

Recommendation for Processing and Application of **Through-Hole Capacitors**

Soldering Process

A preheating of through-hole WIMA capacitors is allowed for temperatures $T_{max} < 100 \circ C.$ In practice a preheating duration of t < 5 min. has been proven to be best.

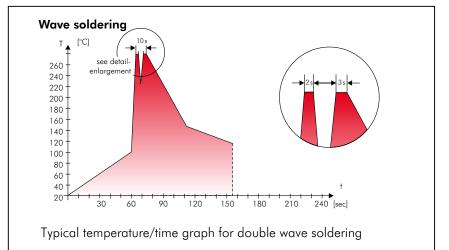
Single wave soldering

Soldering bath temperature: $T < 260 \,^{\circ}\,C$ Immersion time: t < 5 sec

Double wave soldering

Soldering bath temperature: $T < 260 \,^{\circ}\,C$ Immersion time: $2 \times t < 3 \sec$

Due to different soldering processes and heat requirements the graphs are to be regarded as a recommendation only.



WIMA Quality and Environmental Philosophy

ISO 9001:2008 Certification

ISO 9001:2008 is an international basic standard of quality assurance systems for all branches of industry. The approval according to ISO 9001:2008 of our factories by the VDE inspectorate certifies that organisation, equipment and monitoring of quality assurance in our factories correspond to internationally recognized standards.

WIMA WPCS

The WIMA Process Control System (WPCS) is a quality surveillance and optimization system developed by WIMA. WPCS is a major part of the quality-oriented WIMA production. Points of application of WPCS during production process:

- incoming material inspection
- metallization
- film inspection
- schoopage
- pre-healing
- pin attachment cast resin preparation/ encapsulation
- 100% final inspection
- AQL check

WIMA Environmental Policy

All WIMA capacitors, irrespective of whether through-hole devices or SMD, are made of environmentally friendly materials. Neither during manufacture nor in the product itself any toxic substances are used, e.g.

- PBB/PBDE

- Arsenic

- Mercurv

- etc.

– Lead

- PCB
- CFC
- Hydrocarbon chloride
- Chromium 6+

We merely use pure, recyclable materials for packing our components, such as:

- carton
- cardboard
- adhesive tape made of paper
- polystyrene

We almost completely refrain from using packing materials such as:

- foamed polystyrene (Styropor®)
- adhesive tapes made of plastic
- metal clips

RoHS Compliance

According to the RoHS Directive 2002/95/EC certain hazardous substances like e.g. lead, cadmium, mercury must not be used any longer in electronic equipment as of July 1st, 2006. For the sake of the environment WIMA has refraind from using such substances since years already.



Tape for lead-free WIMA capacitors

DIN EN ISO 14001:2004

WIMA's environmental management has been established in accordance with the auidelines of DIN EN ISO 14001:2004 to optimize the production processes with regard to energy and resources.



Typical Dimensions for Taping Configuration

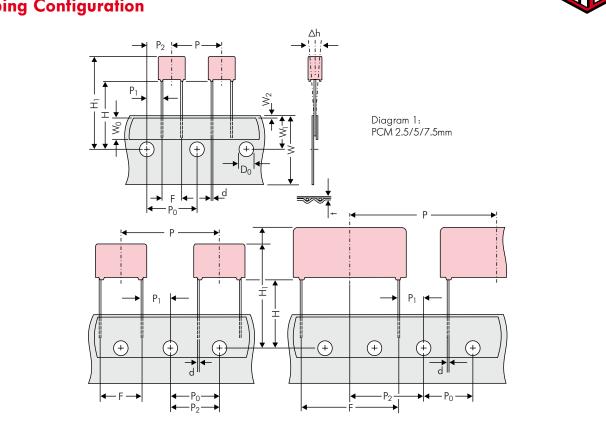


Diagram 2: PCM 10/15 mm

Diagram 3: PCM 22.5 and 27.5*mm *PCM 27.5 taping possible with two feed holes between components

| | | | | Dimensions for Radial Taping | | | | | | | | | |
|--|----------------|---|--|--|---|---|---|---|--|--|--|--|--|
| Designation | Symbol | PCM 2.5 taping | PCM 5 taping | PCM 7.5 taping | PCM 10 taping* | PCM 15 taping* | PCM 22.5 taping | PCM 27.5 taping | | | | | |
| Carrier tape width | W | 18.0 ±0.5 | 18.0 ±0.5 | 18.0 ±0.5 | 18.0 ±0.5 | 18.0 ±0.5 | 18.0 ±0.5 | 18.0 ±0.5 | | | | | |
| Hold-down tape width | W ₀ | 6.0 for hot-sealing adhesive tape | 6.0 for hot-sealing adhesive tape | 12.0 for hot-sealing adhesive tape | 12.0 for hot-sealing adhesive tape | 12.0 for hot-sealing adhesive tape | 12.0 for hot-sealing adhesive tape | 12.0 for hot-sealing adhesive tape | | | | | |
| Hole position | W1 | 9.0 ±0.5 | 9.0 ±0.5 | 9.0 ±0.5 | 9.0 ±0.5 | 9.0 ±0.5 | 9.0 ±0.5 | 9.0 ±0.5 | | | | | |
| Hold-down tape position | W2 | 0.5 to 3.0 max. | 0.5 to 3.0 max. | 0.5 to 3.0 max. | 0.5 to 3.0 max. | 0.5 to 3.0 max. | 0.5 to 3.0 max. | 0.5 to 3.0 max. | | | | | |
| Feed hole diameter | D ₀ | 4.0 ±0.2 | 4.0 ±0.2 | 4.0 ±0.2 | 4.0 ±0.2 | 4.0 ±0.2 | 4.0 ±0.2 | 4.0 ±0.2 | | | | | |
| Pitch of component | Р | 12.7 ±1.0 | 12.7 ±1.0 | 12.7 ±1.0 | 25.4 ±1.0 | 25.4 ±1.0 | 38.1 ±1.5 | 38.1 ±1.5 or 50.8 ±1.5 | | | | | |
| Feed hole pitch | Po | cumulative pitch 12.7 ±0.3 error max. 1.0 mm/20 pitch | cumulative pitch 12.7 ±0.3 error max. 1.0 mm/20 pitch | cumulative pitch 12.7 ±0.3 error max. 1.0 mm/20 pitch | 12.7 ±0.3 cumulative pitch error max. 1.0 mm/20 pitch | cumulative pitch 12.7 ±0.3 error max. 1.0 mm/20 pitch | cumulative pitch 12.7 ±0.3 error max. 1.0 mm/20 pitch | cumulative pitch 12.7 ±0.3 error max. 1.0 mm/20 pitch | | | | | |
| Feed hole centre to pin | P ₁ | 5.1 ±0.5 | 3.85 ±0.7 | 2.6 ±0.7 | 7.7 ±0.7 | 5.2 ±0.7 | 7.8 ±0.7 | 5.3 ±0.7 | | | | | |
| Hole centre to component centre | P ₂ | 6.35 ±1.3 | 6.35 ±1.3 | 6.35 ±1.3 | 12.7 ±1.3 | 12.7 ±1.3 | 19.05 ±1.3 | 19.05 ±1.3 | | | | | |
| Feed hole centre to bottom | н | 16.5 ±0.3 | 16.5 ±0.3 | 16.5 ±0.5 | 16.5 ±0.5 | 16.5 ±0.5 | 16.5 ±0.5 | 16.5 ±0.5 | | | | | |
| edge of the component | | 18.5 ±0.5 | 18.5 ±0.5 | 18.5 ±0.5 | 18.5 ±0.5 | 18.5 ±0.5 | 18.5 ±0.5 | 18.5 ±0.5 | | | | | |
| Feed hole centre to top edge of the component | Hı | H+H _{component} < H ₁ 32.25 max. | H+H _{component} < H ₁ 32.25 max. | H+H _{component} < H ₁ 24.5 to 31.5 | H+H _{component} < H ₁ 25.0 to 31.5 | H+H _{component} < H ₁ 26.0 to 37.0 | H+H _{component} < H ₁ 30.0 to 43.0 | H+H _{component} < H ₁ 35.0 to 45.0 | | | | | |
| Pin spacing at upper edge of carrier tape | F | 2.5 ±0.5 | 5.0 ^{+0.8} _{-0.2} | 7.5 ±0.8 | 10.0 ±0.8 | 15 ±0.8 | 22.5 ±0.8 | 27.5 ±0.8 | | | | | |
| Pin diameter | d | 0.4 ±0.05 | 0.5 ±0.05 | $^{\circ}0.5 \pm 0.05 \text{ or } 0.6 + 0.06 \\ -0.05 $ | $^{\circ}0.5 \pm 0.05 \text{ or } 0.6 + 0.06 \\ -0.05 $ | 0.8 +0,08 | 0.8 +0,08 | 0.8 +0.08 -0.05 | | | | | |
| Component alignment | Δh | ± 2.0 max. | ± 2.0 max. | ± 3.0 max. | ± 3.0 max. | ± 3.0 max. | ± 3.0 max. | ± 3.0 max. | | | | | |
| Total tape thickness | t | 0.7 ±0.2 | 0.7 ±0.2 | 0.7 ±0.2 | 0.7 ±0.2 | 0.7 ±0.2 | 0.7 ±0.2 | 0.7 ±0.2 | | | | | |
| | | ROLL// | AMMO | AMMO | | | | | | | | | |
| Package Isee also page 128) | | REEL Ø 360 max. Ø 30 ±1 | $\left. \begin{array}{c} 52\pm2\\58\pm2 \end{array} ight\}$ depending on comp. dimensions | $\begin{array}{c} \text{REEL} \begin{array}{c} \phi & 360 \text{ max}, \\ \phi & 30 \pm 1 \end{array} & \begin{array}{c} 52 \pm 2 \\ 85 \pm 2 \text{ or } \text{REEL} \end{array} & \begin{array}{c} \phi & 500 \text{ max}, \\ 85 \pm 2 \text{ or } \text{REEL} \end{array} & \begin{array}{c} \phi & 500 \text{ max}, \\ 80 \pm 2 \text{ or } \text{RM} \text{ on } \text{M} \text{ on } \text{ on } \text{M} \text$ | | | | | | | | | |
| Unit | | | | | see details page 130. | | | | | | | | |

Dims in mm.

• Diameter of pins see General Data.

PCM 10 and PCM 15 can be crimped to PCM 7.5. Position of components according to PCM 7.5 (sketch 1). $P_0 = 12.7$ or 15.0 is possible

Please clarify customer-specific deviations with the manufacturer.

Packing Quantities for Capacitors with Radial Pins in PCM 2.5 mm to 22.5 mm

| | | | | | | | pcs. per p | acking unit | | |
|-----------|------------|---------------|--------------|--------------------|--------------|-----------------|--------------|--------------|-----------------|--------------|
| | | Si | ze | | | ROLL | RE | EL | AM | |
| PCM | | 01. | 20 | | bulk | | ø 360 | Ø 500 | 340 × 340 | 490 × 370 |
| | W | | | Carlas | S | | H16.5 H18.5 | | | |
| | 2.5 | <u>Н</u> 7 | 4.6 | Codes 0B | 5000 | N O 2200 | 2500 | H J | A C 2800 | B D |
| | 3 | 7.5 | 4.0 | 0C | 5000 | 2200 | 2300 | - | 2300 | - |
| 2.5 mm | 3.8 | 8.5 | 4.6 | 0D | 5000 | 1500 | 1800 | _ | 1800 | _ |
| | 4.6 | 9 | 4.6 | 0E | 5000 | 1200 | 1500 | - | 1500 | - |
| | 5.5 | 10 | 4.6 | 0F | 5000 | 900 | 1200 | - | 1200 | - |
| | 2.5 | 6.5 | 7.2 | 1A | 5000 | 2200 | 2500 | _ | 2800 | _ |
| | 3 | 7.5 | 7.2 | 1B | 5000 | 2000 | 2300 | - | 2300 | - |
| | 3.5 | 8.5 | 7.2 | 1C | 5000 | 1600 | 2000 | - | 2000 | - |
| | 4.5 | 6 | 7.2 | 1D | 6000 | 1300 | 1500 | - | 1500 | - |
| | 4.5 | 9.5 | 7.2 | 1E | 4000 | 1300 | 1500 | - | 1500 | - |
| _ | 5 | 10 | 7.2 | 1F | 3500 | 1100 | 1400 | - | 1400 | - |
| 5 mm | 5.5 5.5 | 7 11.5 | 7.2 7.2 | 1G 1H | 4000 2500 | 1000 1000 | 1200 1200 | - | 1200 1200 | - |
| | 5.5 6.5 | 8 | 7.2 | 11 | 2500 | 800 | 1200 | _ | 1200 | - |
| | 7.2 | 8.5 | 7.2 | ij | 2500 | 700 | 1000 | _ | 1000 | _ |
| | 7.2 | 13 | 7.2 | iĸ | 2000 | 700 | 950 | _ | 1000 | - |
| | 8.5 | 10 | 7.2 | 1L | 2000 | 600 | 800 | - | 800 | - |
| | 8.5 | 14 | 7.2 | 1M | 1500 | 600 | 800 | - | 800 | - |
| | 11 | 16 | 7.2 | 1N | 1000 | 500 | 700 | - | 700 | - |
| | 2,5 | 7 | 10 | 2A | 5000 | - | 2500 | 4400 | 2500 | - |
| | 3 | 8.5 | 10 | 2B | 5000 | - | 2200 | 4300 | 2300 | 4150 |
| 7 5 | 4 | 9 | 10 | 2C | 4000 | - | 1700 | 3200 | 1700 | 3100 |
| 7.5 mm | 4.5 | 9.5 | 10.3 | 2D | 3500 | - | 1500 | 2900 | 1400 | 2800 |
| | 5 5.7 | 10.5 12.5 | 10.3 10.3 | 2E 2F | 3000 2000 | - | 1300 | 2500 2200 | 1300 1100 | - |
| | 5.7 7.2 | 12.5 | 10.3 | 2F 2G | 1500 | - | 1000 900 | 1800 | 1000 | - |
| | 3 | 9 | 10.5 | 3A | 3000 | _ | 1100 | 2200 | - | |
| | 4 | 8.5 | 13.5 | FA | 3000 | _ | 900 | 1600 | - | 1900 1450 |
| | 4 | 9 | 13 | 3C | 3000 | _ | 900 | 1600 | _ | 1450 |
| | 4 | 9.5 | 13 | 3D | 3000 | - | 900 | 1600 | - | 1400 |
| 10 mm | 5 | 10 | 13.5 | FB | 2000 | - | 700 | 1300 | - | 1200 |
| | 5 | 11 | 13 | 3F | 3000 | - | 700 | 1300 | - | 1200 |
| | 6 | 12 | 13 | 3G | 2400 | - | 550 | 1100 | - | 1000 |
| | 6 | 12.5 | 13 | 3H | 2400 | - | 550 400 | 1100 800 | - | 1000 740 |
| | 8 | 12 | 13 | 31 | 2000 | - | | | - | |
| | 5 5 | 11 | 18 | 4B | 2400 | - | 600 | 1200 | - | 1150 |
| | 5 6 | 13 12.5 | 19 18 | FC 4C | 1000 2000 | - | 600 500 | 1200 1000 | - | 1200 1000 |
| | 6 | 12.5 | 10 | 4C FD | 1000 | _ | 500 | 1000 | _ | 1000 |
| | 7 | 14 | 18 | 4D | 1600 | _ | 450 | 900 | - | 850 |
| | 7 | 15 | 19 | FE | 1000 | - | 450 | 900 | - | 850 |
| 15 mm | 8 | 15 | 18 | 4F | 1200 | - | 400 | 800 | - | 740 |
| | 8 | 17 | 19 | FF | 500 | - | 400 | 800 | - | 740 |
| | 9 | 14 | 18 | 4H | 1200 | - | 350 | 700 | - | 650 |
| | 9 10 | 16 18 | 18 19 | 4J | 900 | - | 350 300 | 700 | - | 650 590 |
| | 10 | 18 | 19 | FG 4M | 500 1000 | - | 300 | 650 600 | - | 590 540 |
| | 5 | 14 | 26.5 | 5A | 1200 | _ | - | 800 | _ | 770 |
| | 6 | 14 | 26.5 | 5A 5B | 1200 | _ | _ | 700 | _ | 640 |
| | 7 | 16.5 | 26.5 | 5D | 760 | _ | _ | 600 | _ | 550 |
| | 8 | 20 | 28 | FH | 500 | - | - | 500 | - | 480 |
| 22.5 mm | 8.5 | 18.5 | 26.5 | 5F | 500 | - | - | 480 | - | 450 |
| 22.5 1111 | 10 | 22 | 28 | FI | 540* | - | - | 420 | - | 380 |
| | 10.5 | 19 | 26.5 | 5G | 680* | - | - | 400 | - | 360 |
| | 10.5 | 20.5 | 26.5 | 5H | 680* | - | - | 400 | - | 360 |
| | 11 | 21 | 26.5 | 51 | 680* | - | - | 380 | - | 350 |
| | 12 | 24 | 28 | FJ | 450* | - | - | 350 | - | 310 |

* Tray Packing-System Samples and pre-production needs on request.

Moulded versions.

Rights reserved to amend design data without prior notification.

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Packing Quantities for Capacitors with -Radial Pins in PCM 2.5 mm to 22.5 mm

| PCM | | | | | | | pcs. per pc | | • | |
|-------|----------|------------|-----------------|----------|-------------------|------|-------------|----------|-----------|-----------|
| | | Siz | 7 0 | | | ROLL | RE | | AM | |
| FCIVI | | 0.12 | | | bulk | | Ø 360 | Ø 500 | 340 × 340 | 490 × 370 |
| | <u> </u> | | | | | | H16.5 H18.5 | | | |
| | W | Н | L | Codes | S | N O | FI | НЈ | A C | B D |
| | 9 | 19 | 31.5 | 6A | 640* | - | - | 460/340* | - | 420 |
| | 11 | 21 | 31.5 | 6B | 544* | - | - | 380/280* | - | 350 |
| | 13 | 24 | 31.5 | 6D | 448* | - | - | 300 | - | 290 |
| | 13 | 25 | 33 | FK | 336* | - | - | 270 | - | 250 |
| | 15 | 26 | 31.5 | 6F | 384* | - | - | - | - | - |
| | 15 | 26 | 33 | FL | 288* | - | - | - | - | - |
| | 17 | 29 | 31.5 | 6G | 176* | - | - | - | - | - |
| | 17 | 34.5 | 31.5 | 61 | 176* | - | - | - | - | - |
| | 19 | 30 | 31.5 | 6L | 50* | - | - | - | - | - |
| | 20 20 | 32 39.5 | 33 31.5 | FM 6J | 216* 144* | - | - | - | - | - |
| | 20 | <u> </u> | 41.5 | 0J 7A | 480* | | | | | _ |
| | 11 | 22 | 41.5 | 7B | 400 408* | _ | _ | _ | _ | - |
| | 13 | 22 | 41.5 | 7C | 252* | | | | | |
| | 15 | 26 | 41.5 | 7D | 144* | _ | _ | _ | _ | _ |
| | 17 | 29 | 41.5 | 7E | 132* | _ | _ | _ | _ | _ |
| | 19 | 32 | 41.5 | 7F | 108* | _ | - | - | - | - |
| | 20 | 39.5 | 41.5 | 7G | 108* | - | - | - | - | - |
| | 24 | 45.5 | 41.5 | 7H | 84* | - | - | - | - | - |
| | 31 | 46 | 41.5 | 71 | 72* | - | - | - | - | - |
| | 35 | 50 | 41.5 | 7J | 35* | - | - | - | - | - |
| | 40 | 55 | 41.5 | 7K | 28* | _ | _ | _ | _ | - |
| | 19 | 31 | 56 | 8D | 50* | - | - | - | - | - |
| 10 E | 23 | 34 | 56 | 8E | 72* | - | - | - | - | - |
| | 27 | 37.5 | 56 | 8H | 60* | - | - | - | - | - |
| | 33 | 48 | 56 | 8J | 48* | - | - | - | - | - |
| | 37 35 | 54 50 | <u>56</u> 57 | 8L 9F | <u>25*</u> 25* | | _ | - | _ | |
| | 35 45 | 50 55 | 57 57 | 9F 9H | 25* | - | - | - | - | - |
| 52.5 | 45 45 | აა 65 | 57 57 | 91 91 | 20* 20* | _ | _ | _ | _ | _ |

* for 2-inchl transport pitches.

* Tray Packing System Samples and pre-production needs on request.



Moulded versions.

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WIMA Part Number System

A WIMA part number consists of 18 digits and is composed as follows:

- Field 1 4: Type description
- Field 5 6: Rated voltage
- Field 7 10: Capacitance
- Field 11 12: Size and PCM
- Field 13 14: Special features (e.g. Snubber versions)
- Field 15: Capacitance tolerance
- Field 16: Packing Field 17 18: Lead length (untaped)

| Field 17 | ′ - 18: Lec | ıd leng | th (unt | taped) | | | | | | | | | | | | | |
|--|---|---|---|---|--|--|--|--|---|--|---|---|---|---|---|--|----------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| м | К | S | 2 | c | 0 | 2 | 1 | 0 | 0 | 1 | A | 0 | 0 | м | S | S | D |
| | MKS | 2 | | 63 \ | /DC | | 0.0 | 1 µF | | 2.5×6 | .5x7.2 | - | | 20% | bulk | 6 | -2 |
| | | | _ | | | | | | | | | | | | | | |
| SMD-F SMD-F FKP 02 MKS 0 FKS 2 FKP 2 MKS 2 FKP 3 MKP 2 FKS 3 FKP 3 MKP 4 FKP 1 FKP 4 FKP 1 MKP-X MKP-X MKP-Y MP 3-) MP 3-) MP 3- Snubb Snubb Snubb Snubb | PS 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | = SA $= SA$ $= FK$ | ADI ADO KSO KS2 KS2 KS2 KS2 KS2 KS2 KS2 KS2 KS2 KS2 | Rated v 2.5 VDC 4 VDC 28 VDC 5 VDC 5 VDC 50 VDC 50 VDC 63 VDC 63 VDC 63 VDC 400 VDC 450 VDC 630 VDC 630 VDC 630 VDC 630 VDC 630 VDC 850 VDC 700 VDC 850 VDC 1000 VD 1000 VD 1100 VD 1250 VD 12 | $\begin{array}{c} = A \\ = B \\ = C \\ = B \\ = D \\ = C \\ = B \\ = D \\ = C \\ = B \\ = D \\ = C \\ = B \\ = D \\ = C \\ = B \\ = D \\ = C \\ = B \\ = D \\ = C \\ = B \\ = D \\ = C \\ = B \\ = D \\ = C \\ = B \\ = D \\ = D \\ = C \\$ | 22 47 2 47 3 10 4 15 5 22 6 33 0 47 5 22 6 33 0 47 0 15 22 33 0 47 0 15 22 333 0 47 0 0.0 0 0.1 0 0.2 0 0.2 0 1 0 1 0 1 0 22 0 47 0 1 0 2 0 1 0 2 0 47 0 1 0 1 0 1 0 1 0 1 | pF = 0 pF = 00 pF = 01 µF = 022 µF = 047 µF = 0 µF = 0 µF = | = 0022 = 0047 = 0100 = 0150 = 0220 = 0330 = 0470 = 0680 = 1100 = 1150 = 1220 = 1330 = 1470 = 1680 = 2100 = 2220 = 2470 = 3100 = 3220 | 4.8x 5.7x 5.7x 7.2x 7.2x 10.2: 12.7s 15.3; 2.5x 3x7. 2.5x 3x7. 2.5x 3x8. 3x9: 4x9: 5x14 6x12 5x14 6x12 5x14 6x12 5x14 6x12 9x19 11x2 94x4 | 3.3 x 3 5 3.3 x 4 5 5.1 x 3.5 5.1 x 3.5 5.1 x 4.5 6.1 x 3 5 6.1 x 3 5 6.1 x 3 5 (10.2 x 6 (10.2 x 7 (10.2 x 7 | CM 7.5 CM 7.5 M 10 CM 15 PCM 15 PCM 22 PCM 22 PCM 27 PCM 27 PCM 37 PCM 37 DCH_ | $2 = Kl \\ 220 = C \\ 220 = C \\ 4 = TA \\ 4 = TH \\ 30 = V \\ 40 = X \\ 54 = YA \\ 40 = X \\ 54 = YA \\ 0 = 0 \\ 0 \\ 0 \\ 11 \\ 0 \\ 0 \\ 11 \\ 0 \\ 0 \\ 11 \\ 0 \\ 0$ | B A B A A A A B C A B A B A B C A B A B | Toleran 20% 10% 5% 2.5% 1% Packing AMMO AMMO AMMO AMMO AMMO AMMO AMMO AMM | = M = K = J = H = E H16.5 3 H16.5 4 H18.5 3 H18.5 4 6.5 360 6.5 500 8.5 500 6.5 8.5 W12 18 W12 33 W16 33 W16 33 W16 33 | 90 × 37(40 × 34(90 × 37(00 |) = B) = C |
| Super(Super(| Cap MC | | CMC CSR | 250 VAC 275 VAC 300 VAC 400 VAC 440 VAC 500 VAC | $\begin{array}{l} = 0 \\ = 1 \\ 0 \\ = 2 \\ 0 \\ = 3 \\ 0 \\ 0 \\ = 4 \end{array}$ | V 50 V 10 V 11 V 60 V 12 | F = 0F = 0F = 0F = | = A500 = B100 = B110 = B600 = C120 | Stand Versid Versid | on Al on Al.l | = 00 = 1A | | | Lead le 3.5 ±0.5 6 -2 16 ±1 | | ntaped) | |

The data on this page is not complete and serves only to explain the part number system. Part number information is listed on the pages of the respective WIMA range.