



## Continuation

### General Data

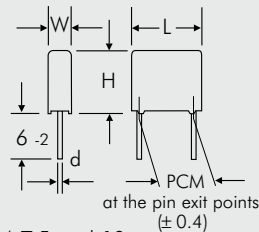
| Capacitance | 100 VDC/63 VAC* |     |    |            |                     | 250 VDC/160 VAC* |      |    |            |                     |
|-------------|-----------------|-----|----|------------|---------------------|------------------|------|----|------------|---------------------|
|             | W               | H   | L  | PCM**      | Part number         | W                | H    | L  | PCM**      | Part number         |
| 1000 pF     | 3               | 8.5 | 10 | <b>7.5</b> | FKS3D011002B00_____ | 3                | 8.5  | 10 | <b>7.5</b> | FKS3F011002B00_____ |
| 1500 "      | 3               | 8.5 | 10 | <b>7.5</b> | FKS3D011502B00_____ | 3                | 8.5  | 10 | <b>7.5</b> | FKS3F011502B00_____ |
| 2200 "      | 3               | 8.5 | 10 | <b>7.5</b> | FKS3D012202B00_____ | 3                | 8.5  | 10 | <b>7.5</b> | FKS3F012202B00_____ |
| 3300 "      | 3               | 8.5 | 10 | <b>7.5</b> | FKS3D013302B00_____ | 3                | 8.5  | 10 | <b>7.5</b> | FKS3F013302B00_____ |
| 4700 "      | 3               | 8.5 | 10 | <b>7.5</b> | FKS3D014702B00_____ | 3                | 8.5  | 10 | <b>7.5</b> | FKS3F014702B00_____ |
| 6800 "      | 3               | 8.5 | 10 | <b>7.5</b> | FKS3D016802B00_____ | 3                | 8.5  | 10 | <b>7.5</b> | FKS3F016802B00_____ |
| 0.01 µF     | 3               | 8.5 | 10 | <b>7.5</b> | FKS3D021002B00_____ |                  |      |    |            |                     |
| 0.015 "     | 3               | 8.5 | 10 | <b>7.5</b> | FKS3D021502B00_____ |                  |      |    |            |                     |
|             | 3               | 9   | 13 | 10         | FKS3D021503A00_____ |                  |      |    |            |                     |
| 0.022 "     | 3               | 8.5 | 10 | <b>7.5</b> | FKS3D022202B00_____ |                  |      |    |            |                     |
|             | 3               | 9   | 13 | 10         | FKS3D022203A00_____ |                  |      |    |            |                     |
| 0.033 "     | 4               | 9.5 | 13 | 10         | FKS3D023303D00_____ | 6                | 12   | 13 | 10         | FKS3F023303G00_____ |
| 0.047 "     | 4               | 9.5 | 13 | 10         | FKS3D024703D00_____ | 6                | 12.5 | 18 | 15         | FKS3F024704C00_____ |
| 0.068 "     | 5               | 11  | 13 | 10         | FKS3D026803F00_____ | 7                | 14   | 18 | 15         | FKS3F026804D00_____ |
| 0.1 µF      | 6               | 12  | 13 | 10         | FKS3D031003G00_____ | 8                | 15   | 18 | 15         | FKS3F031004F00_____ |
| 0.15 "      | 7               | 14  | 18 | 15         | FKS3D031504D00_____ | 9                | 16   | 18 | 15         | FKS3F031504J00_____ |
| 0.22 "      | 8               | 15  | 18 | 15         | FKS3D032204F00_____ |                  |      |    |            |                     |

\* AC voltage:  $f = 50 \text{ Hz}$ ;  $1.4 \times U_{\text{rms}} + \text{UDC} \leq U_r$

\*\* PCM = Printed circuit module = pin spacing.

Dims. in mm.

The values of the WIMA FKM 3 range according to the main catalogue 2009 are still available on request.



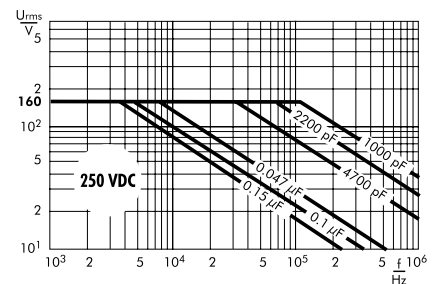
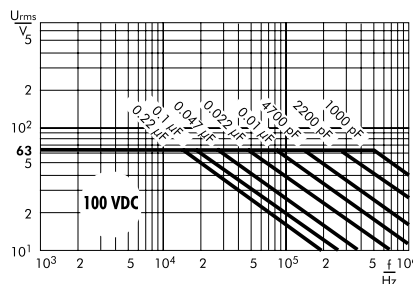
$d = 0.5 \varnothing$  if  $W = 3$   
 $d = 0.6 \varnothing$  if  $W \geq 4$   
 $d = 0.8 \varnothing$  if  $\text{PCM} = 15$

} PCM 7.5 and 10

| Part number completion:     |          |
|-----------------------------|----------|
| Tolerance:                  | 20 % = M |
|                             | 10 % = K |
|                             | 5 % = J  |
| Packing:                    | bulk = S |
| Pin length:                 | 6-2 = SD |
| Taped version see page 127. |          |

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Permissible AC voltage in relation to frequency at 10° C internal temperature rise (general guide).



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

### Soldering Process

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

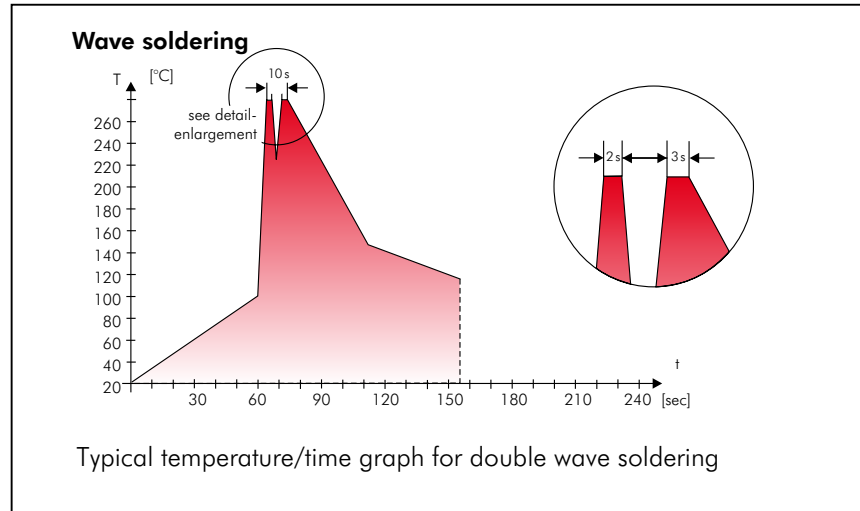
#### Single wave soldering

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

#### Double wave soldering

Soldering bath temperature:  $T < 260^{\circ}\text{C}$   
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.

- Lead
- PCB
- CFC
- Hydrocarbon chloride
- Chromium 6+
- PBB/PBDE
- Arsenic
- Cadmium
- Mercury
- etc.

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 refrained from using such substances since years already.



WIMA Kondensatoren sind bleifrei konform RoHS 2002/95/EG

WIMA capacitors are lead free in accordance with RoHS 2002/95/EC

Tape for lead-free WIMA capacitors

### DIN EN ISO 14001:2004

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

# Typical Dimensions for Taping Configuration

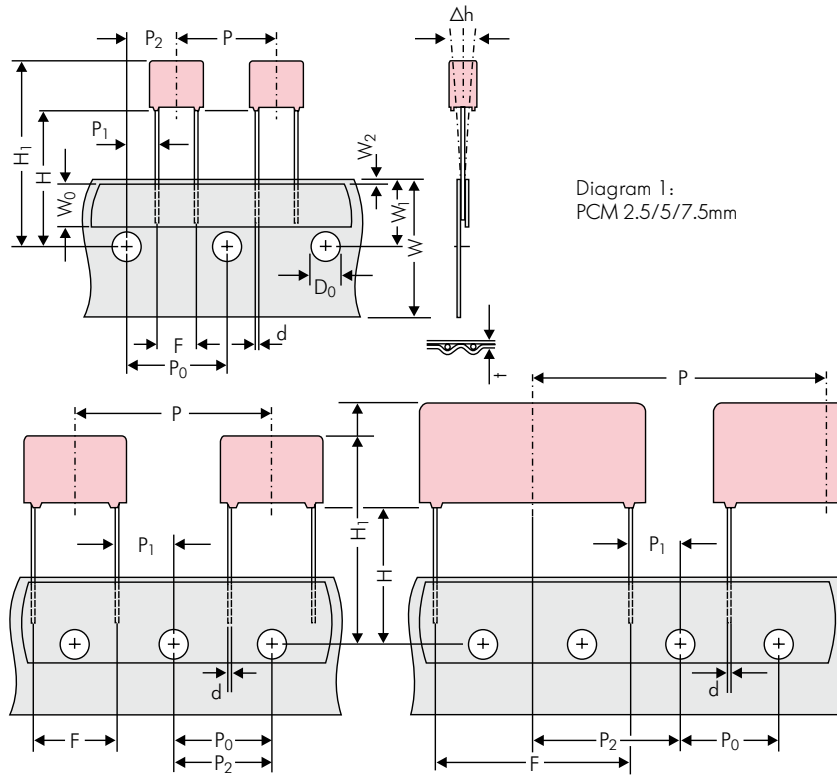


Diagram 1:  
PCM 2.5/5/7.5mm

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

| Designation                                      | Symbol                | Dimensions for Radial Taping                             |  |   |   |   |   |   |
|--|-----------------------|--|--|---|---|---|---|---|
|  |                       | 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 <sub>0</sub>        | 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                                    | W <sub>1</sub>        | 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                          | W <sub>2</sub>        | 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 <sub>0</sub>        | 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                               | P                     | 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                                  | P <sub>0</sub>        | 12.7 ±0.3<br>cumulative pitch error max. 1.0 mm/20 pitch | 12.7 ±0.3<br>cumulative pitch error max. 1.0 mm/20 pitch | 12.7 ±0.3<br>cumulative pitch error max. 1.0 mm/20 pitch  | 12.7 ±0.3<br>cumulative pitch error max. 1.0 mm/20 pitch  | 12.7 ±0.3<br>cumulative pitch error max. 1.0 mm/20 pitch  | 12.7 ±0.3<br>cumulative pitch error max. 1.0 mm/20 pitch  | 12.7 ±0.3<br>cumulative pitch error max. 1.0 mm/20 pitch  |
| Feed hole centre to pin                          | P <sub>1</sub>        | 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 <sub>2</sub>        | 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 edge of the component | H                     | 16.5 ±0.3<br>18.5 ±0.5                                   | 16.5 ±0.3<br>18.5 ±0.5                                   | 16.5 ±0.5<br>18.5 ±0.5                                    | 16.5 ±0.5<br>18.5 ±0.5                                    | 16.5 ±0.5<br>18.5 ±0.5                                    | 16.5 ±0.5<br>18.5 ±0.5                                    | 16.5 ±0.5<br>18.5 ±0.5                                    |
| Feed hole centre to top edge of the component    | H <sub>1</sub>        | H+H <sub>component</sub> < H <sub>1</sub><br>32.25 max.  | H+H <sub>component</sub> < H <sub>1</sub><br>32.25 max.  | H+H <sub>component</sub> < H <sub>1</sub><br>24.5 to 31.5 | H+H <sub>component</sub> < H <sub>1</sub><br>25.0 to 31.5 | H+H <sub>component</sub> < H <sub>1</sub><br>26.0 to 37.0 | H+H <sub>component</sub> < H <sub>1</sub><br>30.0 to 43.0 | H+H <sub>component</sub> < H <sub>1</sub><br>35.0 to 45.0 |
| Pin spacing at upper edge of carrier tape        | F                     | 2.5 ±0.5   | 5.0 <sup>+0.8</sup> <sub>-0.2</sub>                      | 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  | 0.5 ±0.05 or 0.6 <sup>+0.06</sup> <sub>-0.05</sub>        | 0.5 ±0.05 or 0.6 <sup>+0.06</sup> <sub>-0.05</sub>        | 0.8 <sup>+0.08</sup> <sub>-0.05</sub>                     | 0.8 <sup>+0.08</sup> <sub>-0.05</sub>                     | 0.8 <sup>+0.08</sup> <sub>-0.05</sub>                     |
| 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  |
| Package<br>(see also page 128)                   | ROLL/AMMO             |  |  | AMMO  |   |   |   |   |
|  | REEL                  | φ 360 max.<br>φ 30 ±1                                    | B 52 ±2<br>58 ±2 } depending on comp. dimensions         | REEL  | φ 360 max.<br>φ 30 ±1                                     | 52 ±2<br>58 ±2 or 66 ±2                                   | REEL  | φ 500 max.<br>φ 25 ±1                                     |
| 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 11). P<sub>0</sub> = 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



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

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

■ Moulded versions.

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

| PCM            | Size |      |           |           | bulk | pcs. per packing units |       |       |       |          |       |      |           |     |
|----------------|------|------|-----------|-----------|------|------------------------|-------|-------|-------|----------|-------|------|-----------|-----|
|                |      |      |           |           |      | ROLL                   |       | REEL  |       |          |       | AMMO |           |     |
|                | W    | H    | L         | Codes     |      | S                      | H16.5 | H18.5 | ø 360 |          | ø 500 |      | 340 × 340 |     |
|                |      |      |           |           | N    | O                      | F     | I     | H     | J        | A     | C    | B         | D   |
| <b>27.5 mm</b> | 9    | 19   | 31.5      | <b>6A</b> | 640* | –                      | –     | –     | –     | 460/340* | –     | –    | –         | 420 |
|                | 11   | 21   | 31.5      | <b>6B</b> | 544* | –                      | –     | –     | –     | 380/280* | –     | –    | –         | 350 |
|                | 13   | 24   | 31.5      | <b>6D</b> | 448* | –                      | –     | –     | –     | 300      | –     | –    | –         | 290 |
|                | 13   | 25   | 33        | <b>6K</b> | 336* | –                      | –     | –     | –     | 270      | –     | –    | –         | 250 |
|                | 15   | 26   | 31.5      | <b>6F</b> | 384* | –                      | –     | –     | –     | –        | –     | –    | –         | –   |
|                | 15   | 26   | 33        | <b>6L</b> | 288* | –                      | –     | –     | –     | –        | –     | –    | –         | –   |
|                | 17   | 29   | 31.5      | <b>6G</b> | 176* | –                      | –     | –     | –     | –        | –     | –    | –         | –   |
|                | 17   | 34.5 | 31.5      | <b>6I</b> | 176* | –                      | –     | –     | –     | –        | –     | –    | –         | –   |
|                | 19   | 30   | 31.5      | <b>6L</b> | 50*  | –                      | –     | –     | –     | –        | –     | –    | –         | –   |
|                | 20   | 32   | 33        | <b>6M</b> | 216* | –                      | –     | –     | –     | –        | –     | –    | –         | –   |
| 20             | 39.5 | 31.5 | <b>6J</b> | 144*      | –    | –                      | –     | –     | –     | –        | –     | –    | –         |     |
| <b>37.5 mm</b> | 9    | 19   | 41.5      | <b>7A</b> | 480* | –                      | –     | –     | –     | –        | –     | –    | –         | –   |
|                | 11   | 22   | 41.5      | <b>7B</b> | 408* | –                      | –     | –     | –     | –        | –     | –    | –         | –   |
|                | 13   | 24   | 41.5      | <b>7C</b> | 252* | –                      | –     | –     | –     | –        | –     | –    | –         | –   |
|                | 15   | 26   | 41.5      | <b>7D</b> | 144* | –                      | –     | –     | –     | –        | –     | –    | –         | –   |
|                | 17   | 29   | 41.5      | <b>7E</b> | 132* | –                      | –     | –     | –     | –        | –     | –    | –         | –   |
|                | 19   | 32   | 41.5      | <b>7F</b> | 108* | –                      | –     | –     | –     | –        | –     | –    | –         | –   |
|                | 20   | 39.5 | 41.5      | <b>7G</b> | 108* | –                      | –     | –     | –     | –        | –     | –    | –         | –   |
|                | 24   | 45.5 | 41.5      | <b>7H</b> | 84*  | –                      | –     | –     | –     | –        | –     | –    | –         | –   |
|                | 31   | 46   | 41.5      | <b>7I</b> | 72*  | –                      | –     | –     | –     | –        | –     | –    | –         | –   |
|                | 35   | 50   | 41.5      | <b>7J</b> | 35*  | –                      | –     | –     | –     | –        | –     | –    | –         | –   |
| 40             | 55   | 41.5 | <b>7K</b> | 28*       | –    | –                      | –     | –     | –     | –        | –     | –    | –         |     |
| <b>48.5 mm</b> | 19   | 31   | 56        | <b>8D</b> | 50*  | –                      | –     | –     | –     | –        | –     | –    | –         | –   |
|                | 23   | 34   | 56        | <b>8E</b> | 72*  | –                      | –     | –     | –     | –        | –     | –    | –         | –   |
|                | 27   | 37.5 | 56        | <b>8H</b> | 60*  | –                      | –     | –     | –     | –        | –     | –    | –         | –   |
|                | 33   | 48   | 56        | <b>8J</b> | 48*  | –                      | –     | –     | –     | –        | –     | –    | –         | –   |
|                | 37   | 54   | 56        | <b>8L</b> | 25*  | –                      | –     | –     | –     | –        | –     | –    | –         | –   |
| <b>52.5 mm</b> | 35   | 50   | 57        | <b>9F</b> | 25*  | –                      | –     | –     | –     | –        | –     | –    | –         | –   |
|                | 45   | 55   | 57        | <b>9H</b> | 20*  | –                      | –     | –     | –     | –        | –     | –    | –         | –   |
|                | 45   | 65   | 57        | <b>9J</b> | 20*  | –                      | –     | –     | –     | –        | –     | –    | –         | –   |

\* for 2-inch transport pitches.

\* Tray Packing System

Samples and pre-production needs on request.

■ Moulded versions.

Rights reserved to amend design data without prior notification.



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)

|          |          |          |          |          |          |          |          |          |             |          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|-------------|----------|----------|----------|----------|----------|----------|----------|----------|
| 1        | 2        | 3        | 4        | 5        | 6        | 7        | 8        | 9        | 10          | 11       | 12       | 13       | 14       | 15       | 16       | 17       | 18       |
| <b>M</b> | <b>K</b> | <b>S</b> | <b>2</b> | <b>C</b> | <b>0</b> | <b>2</b> | <b>1</b> | <b>0</b> | <b>0</b>    | <b>1</b> | <b>A</b> | <b>0</b> | <b>0</b> | <b>M</b> | <b>S</b> | <b>S</b> | <b>D</b> |
| MKS 2    |          |          |          | 63 VDC   |          | 0.01 µF  |          |          | 2.5x6.5x7.2 |          | -        |          | 20%      | bulk     | 6 -2     |          |          |

|   |  |   |  |   |
|---|--|---|--|---|
| <p><b>Type description:</b></p> <p>SMD-PET = SMDT<br/>                 SMD-PPS = SMDI<br/>                 FKP 02 = FKP0<br/>                 MKS 02 = MKS0<br/>                 FKS 2 = FKS2<br/>                 FKP 2 = FKP2<br/>                 MKS 2 = MKS2<br/>                 MKP 2 = MKP2<br/>                 FKS 3 = FKS3<br/>                 FKP 3 = FKP3<br/>                 MKS 4 = MKS4<br/>                 MKP 4 = MKP4<br/>                 MKP 10 = MKP1<br/>                 FKP 4 = FKP4<br/>                 FKP 1 = FKP1<br/>                 MKP-X2 = MKX2<br/>                 MKP-X2 R = MKXR<br/>                 MKP-Y2 = MKY2<br/>                 MP 3-X2 = MPX2<br/>                 MP 3-X1 = MPX1<br/>                 MP 3-Y2 = MPY2<br/>                 MP 3R-Y2 = MPRY<br/>                 Snubber MKP = SNMP<br/>                 Snubber FKP = SNFP<br/>                 GTO MKP = GTOM<br/>                 DC-LINK MKP 4 = DCP4<br/>                 DC-LINK MKP 5 = DCP5<br/>                 DC-LINK MKP 6 = DCP6<br/>                 DC-LINK HC = DCH_<br/>                 SuperCap C = SCSC<br/>                 SuperCap MC = SCMC<br/>                 SuperCap R = SCSR<br/>                 SuperCap MR = SCMR</p> | <p><b>Rated voltage:</b></p> <p>2.5 VDC = A1<br/>                 4 VDC = A2<br/>                 14 VDC = A3<br/>                 28 VDC = A4<br/>                 40 VDC = A5<br/>                 5 VDC = A6<br/>                 50 VDC = B0<br/>                 63 VDC = C0<br/>                 100 VDC = D0<br/>                 160 VDC = E0<br/>                 250 VDC = F0<br/>                 400 VDC = G0<br/>                 450 VDC = H0<br/>                 600 VDC = I0<br/>                 630 VDC = J0<br/>                 700 VDC = K0<br/>                 800 VDC = L0<br/>                 850 VDC = M0<br/>                 900 VDC = N0<br/>                 1000 VDC = O1<br/>                 1100 VDC = P0<br/>                 1200 VDC = Q0<br/>                 1250 VDC = R0<br/>                 1500 VDC = S0<br/>                 1600 VDC = T0<br/>                 2000 VDC = U0<br/>                 2500 VDC = V0<br/>                 3000 VDC = W0<br/>                 4000 VDC = X0<br/>                 6000 VDC = Y0<br/>                 250 VAC = 0W<br/>                 275 VAC = 1W<br/>                 300 VAC = 2W<br/>                 400 VAC = 3W<br/>                 440 VAC = 4W<br/>                 500 VAC = 5W</p> | <p><b>Capacitance:</b></p> <p>22 pF = 0022<br/>                 47 pF = 0047<br/>                 100 pF = 0100<br/>                 150 pF = 0150<br/>                 220 pF = 0220<br/>                 330 pF = 0330<br/>                 470 pF = 0470<br/>                 680 pF = 0680<br/>                 1000 pF = 1100<br/>                 1500 pF = 1150<br/>                 2200 pF = 1220<br/>                 3300 pF = 1330<br/>                 4700 pF = 1470<br/>                 6800 pF = 1680<br/>                 0.01 µF = 2100<br/>                 0.022 µF = 2220<br/>                 0.047 µF = 2470<br/>                 0.1 µF = 3100<br/>                 0.22 µF = 3220<br/>                 0.47 µF = 3470<br/>                 1 µF = 4100<br/>                 2.2 µF = 4220<br/>                 4.7 µF = 4470<br/>                 10 µF = 5100<br/>                 22 µF = 5220<br/>                 47 µF = 5470<br/>                 100 µF = 6100<br/>                 220 µF = 6220<br/>                 1 F = A010<br/>                 2.5 F = A025<br/>                 50 F = A500<br/>                 100 F = B100<br/>                 110 F = B110<br/>                 600 F = B600<br/>                 1200 F = C120<br/>                 ...</p> | <p><b>Size:</b></p> <p>4.8x3.3x3 Size 1812 = KA<br/>                 4.8x3.3x4 Size 1812 = KB<br/>                 5.7x5.1x3.5 Size 2220 = QA<br/>                 5.7x5.1x4.5 Size 2220 = QB<br/>                 7.2x6.1x3 Size 2824 = TA<br/>                 7.2x6.1x5 Size 2824 = TB<br/>                 10.2x7.6x5 Size 4030 = VA<br/>                 12.7x10.2x6 Size 5040 = XA<br/>                 15.3x13.7x7 Size 6054 = YA<br/>                 2.5x7x4.6 PCM 2.5 = 0B<br/>                 3x7.5x4.6 PCM 2.5 = 0C<br/>                 2.5x6.5x7.2 PCM 5 = 1A<br/>                 3x7.5x7.2 PCM 5 = 1B<br/>                 2.5x7x10 PCM 7.5 = 2A<br/>                 3x8.5x10 PCM 7.5 = 2B<br/>                 3x9x13 PCM 10 = 3A<br/>                 4x9x13 PCM 10 = 3C<br/>                 5x11x18 PCM 15 = 4B<br/>                 6x12.5x18 PCM 15 = 4C<br/>                 5x14x26.5 PCM 22.5 = 5A<br/>                 6x15x26.5 PCM 22.5 = 5B<br/>                 9x19x31.5 PCM 27.5 = 6A<br/>                 11x21x31.5 PCM 27.5 = 6B<br/>                 9x19x41.5 PCM 37.5 = 7A<br/>                 11x22x41.5 PCM 37.5 = 7B<br/>                 94x49x182 DCH_ = H0<br/>                 94x77x182 DCH_ = H1<br/>                 ...</p> <p><b>Special features:</b></p> <p>Standard = 00<br/>                 Version A1 = 1A<br/>                 Version A1.1.1 = 1B<br/>                 Version A1.2 = 1C<br/>                 ...</p> | <p><b>Tolerance:</b></p> <p>20% = M<br/>                 10% = K<br/>                 5% = J<br/>                 2.5% = H<br/>                 1% = E<br/>                 ...</p> <p><b>Packing:</b></p> <p>AMMO H16.5 340x340 = A<br/>                 AMMO H16.5 490x370 = B<br/>                 AMMO H18.5 340x340 = C<br/>                 AMMO H18.5 490x370 = D<br/>                 REEL H16.5 360 = F<br/>                 REEL H16.5 500 = H<br/>                 REEL H18.5 360 = I<br/>                 REEL H18.5 500 = J<br/>                 ROLL H16.5 = N<br/>                 ROLL H18.5 = O<br/>                 BLISTER W12 180 = P<br/>                 BLISTER W12 330 = Q<br/>                 BLISTER W16 330 = R<br/>                 BLISTER W24 330 = T<br/>                 Bulk Standard = S<br/>                 TPS Standard = Y<br/>                 ...</p> <p><b>Lead length (untaped)</b></p> <p>3.5 ±0.5 = C9<br/>                 6 -2 = SD<br/>                 16 ±1 = P1<br/>                 ...</p> |
|---|--|---|--|---|

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.