

**Polyester (PET) Film/Foil Capacitors for Pulse Applications in PCM 5 mm.**  
**Capacitances from 1000 pF to 0.047  $\mu$ F. Rated Voltages from 63 VDC to 630 VDC.**

## Special Features

- Pulse duty construction
- According to RoHS 2011/65/EU

## Typical Applications

For general DC-applications e.g.

- Coupling
- Decoupling

## Construction

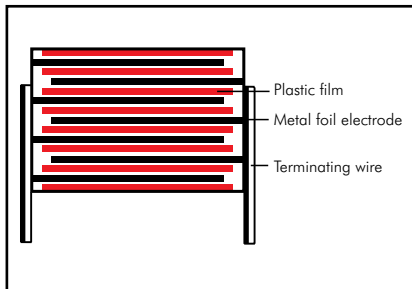
### Dielectric:

Polyethylene-terephthalate (PET) 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: Silver.  
 Epoxy resin seal: Yellow.

## Electrical Data

### Capacitance range:

1000 pF to 0.047  $\mu$ F  
 (E12-values on request)

### Rated voltages:

63 VDC, 100 VDC, 250 VDC, 400 VDC, 630 VDC

### Capacitance tolerances:

$\pm 20\%$ ,  $\pm 10\%$ ,  $\pm 5\%$

### Operating temperature range:

$-55^{\circ}\text{C}$  to  $+100^{\circ}\text{C}$

### Test specifications:

In accordance with IEC 60384-11

### Climatic test category:

55/100/56 in accordance with IEC

### Insulation resistance at $+20^{\circ}\text{C}$ :

$\geq 3 \times 10^4 \text{ M}\Omega$

(mean value:  $8 \times 10^5 \text{ M}\Omega$ )

Measuring voltage: 100 V/1 min.

### Test voltage: $2 U_r$ , 2 sec.

### Maximum pulse rise time:

1000 V/ $\mu$ sec for pulses equal to the rated voltage

### Dissipation factors at $+20^{\circ}\text{C}$ : $\tan \delta$

at f	$C \leq 0.047 \mu\text{F}$
1 kHz	$\leq 7 \times 10^{-3}$
10 kHz	$\leq 15 \times 10^{-3}$
100 kHz	$\leq 20 \times 10^{-3}$

### Voltage derating:

A voltage derating factor of 1.25 % per K must be applied from  $+85^{\circ}\text{C}$  for DC voltages and from  $+75^{\circ}\text{C}$  for AC voltages.

### Reliability:

Operational life > 300 000 hours

Failure rate < 5 fit ( $0.5 \times U_r$  and  $40^{\circ}\text{C}$ )

## 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:

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

### Bump test:

4000 bumps at 390 m/sec<sup>2</sup> in accordance with IEC 60068-2-29

## 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.

## Continuation

### General Data

Capacitance	63 VDC/40 VAC*					100 VDC/63 VAC*				
	W	H	L	PCM**	Part number	W	H	L	PCM**	Part number
1000 pF	2.5	6.5	7.2	5	FKS2C011001A00_	2.5	6.5	7.2	5	FKS2D011001A00_
1500 "	2.5	6.5	7.2	5	FKS2C011501A00_	2.5	6.5	7.2	5	FKS2D011501A00_
2200 "	2.5	6.5	7.2	5	FKS2C012201A00_	2.5	6.5	7.2	5	FKS2D012201A00_
3300 "	2.5	6.5	7.2	5	FKS2C013301A00_	2.5	6.5	7.2	5	FKS2D013301A00_
4700 "	2.5	6.5	7.2	5	FKS2C014701A00_	2.5	6.5	7.2	5	FKS2D014701A00_
6800 "	2.5	6.5	7.2	5	FKS2C016801A00_	2.5	6.5	7.2	5	FKS2D016801A00_
0.01 µF	3	7.5	7.2	5	FKS2C021001B00_	3	7.5	7.2	5	FKS2D021001B00_
0.015 "	3.5	8.5	7.2	5	FKS2C021501C00_	3.5	8.5	7.2	5	FKS2D021501C00_
0.022 "	4.5	9.5	7.2	5	FKS2C022201E00_	4.5	9.5	7.2	5	FKS2D022201E00_
0.033 "	5.5	11.5	7.2	5	FKS2C023301H00_	5.5	11.5	7.2	5	FKS2D023301H00_
0.047 "	7.2	13	7.2	5	FKS2C024701K00_	7.2	13	7.2	5	FKS2D024701K00_

Capacitance	250 VDC/160 VAC*					400 VDC/200 VAC*				
	W	H	L	PCM**	Part number	W	H	L	PCM**	Part number
1000 pF	2.5	6.5	7.2	5	FKS2F011001A00_	2.5	6.5	7.2	5	FKS2G011001A00_
1500 "	2.5	6.5	7.2	5	FKS2F011501A00_	2.5	6.5	7.2	5	FKS2G011501A00_
2200 "	2.5	6.5	7.2	5	FKS2F012201A00_	2.5	6.5	7.2	5	FKS2G012201A00_
3300 "	2.5	6.5	7.2	5	FKS2F013301A00_	2.5	6.5	7.2	5	FKS2G013301A00_
4700 "	2.5	6.5	7.2	5	FKS2F014701A00_	2.5	6.5	7.2	5	FKS2G014701A00_
6800 "	2.5	6.5	7.2	5	FKS2F016801A00_	3	7.5	7.2	5	FKS2G016801B00_
0.01 µF	3	7.5	7.2	5	FKS2F021001B00_	3.5	8.5	7.2	5	FKS2G021001C00_
0.015 "	3.5	8.5	7.2	5	FKS2F021501C00_	4.5	9.5	7.2	5	FKS2G021501E00_
0.022 "	4.5	9.5	7.2	5	FKS2F022201E00_	5.5	11.5	7.2	5	FKS2G022201H00_
0.033 "	5.5	11.5	7.2	5	FKS2F023301H00_	7.2	13	7.2	5	FKS2G023301K00_
0.047 "	7.2	13	7.2	5	FKS2F024701K00_					

Capacitance	630 VDC/250 VAC*				
	W	H	L	PCM**	Part number
1000 pF	3	7.5	7.2	5	FKS2J011001B00_
1500 "	3	7.5	7.2	5	FKS2J011501B00_
2200 "	3	7.5	7.2	5	FKS2J012201B00_
3300 "	3	7.5	7.2	5	FKS2J013301B00_
4700 "	3.5	8.5	7.2	5	FKS2J014701C00_
6800 "	4.5	9.5	7.2	5	FKS2J016801E00_
0.01 µF	4.5	9.5	7.2	5	FKS2J021001E00_
0.015 "	5.5	11.5	7.2	5	FKS2J021501H00_
0.022 "	7.2	13	7.2	5	FKS2J022201K00_

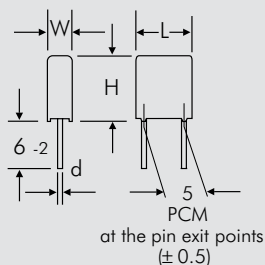
\* AC voltage:  $f = 50 \text{ Hz}$ ;  $1.4 \times U_{\text{rms}} + U_{\text{DC}} \leq U_r$

New ranges

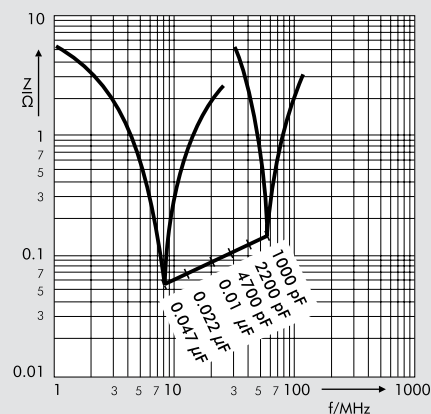
\*\* PCM = Printed circuit module = pin spacing

Dims. in mm.

$d = 0.5 \phi$



Rights reserved to amend design data without prior notification.



Impedance change with frequency (general guide).

Part number completion:

Tolerance: 20 % = M

10 % = K

5 % = J

Packing: bulk = S

Pin length: 6-2 = SD

Taped version see page 145.

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

### Soldering Process

Internal temperature of the capacitor must be kept as follows:

Polyester: preheating:  $T_{\max.} \leq 125^{\circ}\text{C}$   
soldering:  $T_{\max.} \leq 135^{\circ}\text{C}$

Polypropylene: preheating:  $T_{\max.} \leq 100^{\circ}\text{C}$   
soldering:  $T_{\max.} \leq 110^{\circ}\text{C}$

#### Single wave soldering

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

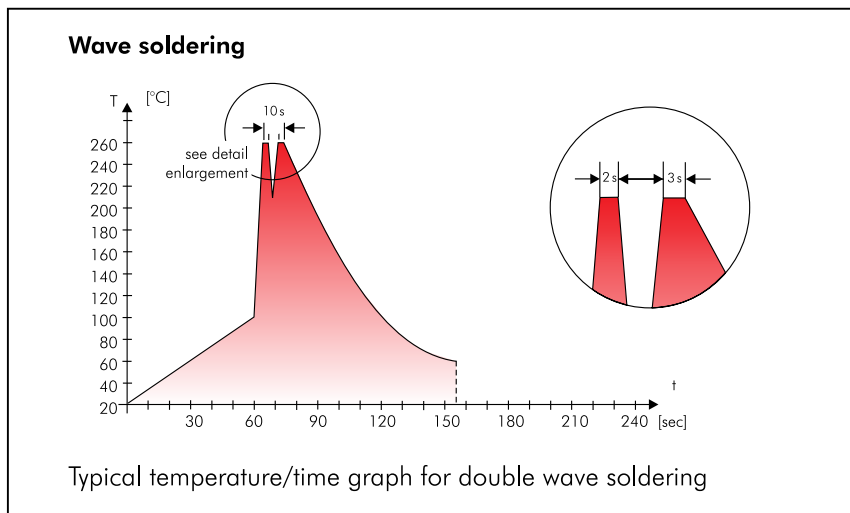
Dwell time:  $t < 5\text{ sec}$

#### Double wave soldering

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

Dwell time:  $\Sigma t < 5\text{ sec}$

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 infaz (Institut für Auditierung und Zertifizierung) 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 during production process:

- incoming material inspection
- metallization
- film inspection
- schoopage
- pre-healing
- pin attachment
- cast resin preparation/encapsulation
- 100% final inspection
- Testing as per customer requirements

### 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                 | – PBB/PBDE |
| – PCB                  | – Arsenic  |
| – CFC                  | – Cadmium  |
| – Hydrocarbon chloride | – Mercury  |
| – Chromium 6+          | – 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 2011/65/EU 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 2011/65/EU

WIMA capacitors are lead free  
in accordance with RoHS 2011/65/EU

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

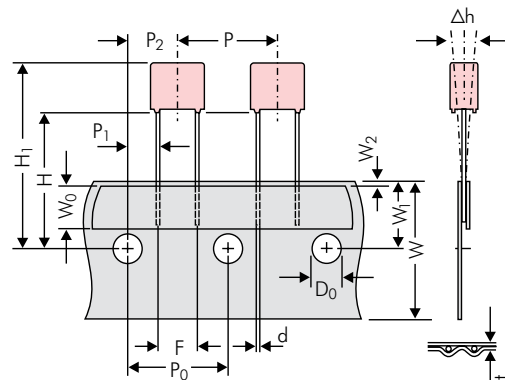


Diagram 1:  
PCM 2.5/5/7.5mm

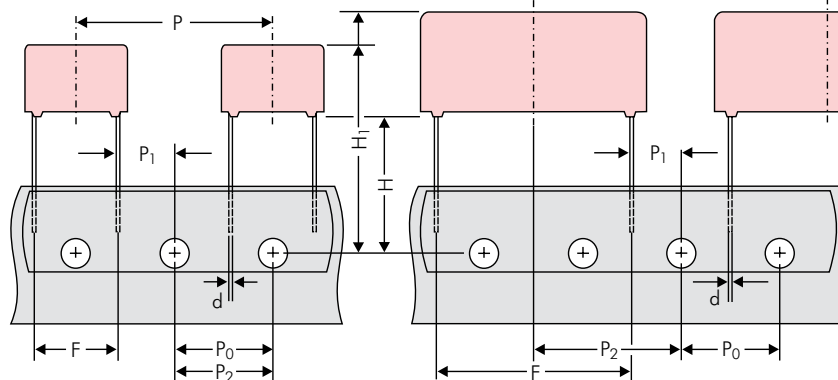


Diagram 2: PCM 10/15 mm

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 cumulative pitch error max. 1.0 mm/20 pitch	12.7 ±0.3 cumulative pitch error max. 1.0 mm/20 pitch	12.7 ±0.3 cumulative pitch error max. 1.0 mm/20 pitch	12.7 ±0.3 cumulative pitch error max. 1.0 mm/20 pitch	12.7 ±0.3 cumulative pitch error max. 1.0 mm/20 pitch	12.7 ±0.3 cumulative pitch error max. 1.0 mm/20 pitch	12.7 ±0.3 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 18.5 ±0.5	16.5 ±0.3 18.5 ±0.5	16.5 ±0.5 18.5 ±0.5	16.5 ±0.5 18.5 ±0.5	16.5 ±0.5 18.5 ±0.5	16.5 ±0.5 18.5 ±0.5	16.5 ±0.5 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> 32.25 max.	H+H <sub>component</sub> < H <sub>1</sub> 32.25 max.	H+H <sub>component</sub> < H <sub>1</sub> 24.5 to 31.5	H+H <sub>component</sub> < H <sub>1</sub> 25.0 to 31.5	H+H <sub>component</sub> < H <sub>1</sub> 26.0 to 37.0	H+H <sub>component</sub> < H <sub>1</sub> 30.0 to 43.0	H+H <sub>component</sub> < H <sub>1</sub> 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 (see also page 146)		ROLL/AMMO			AMMO			
		REEL ø 360 max. ø 30 ±1	B 52 ±2 58 ±2 } depending on comp. dimensions		REEL ø 360 max. ø 30 ±1	B 52 ±2 58 ±2 or 66 ±2	REEL ø 500 max. ø 25 ±1	B 54 ±2 60 ±2 or 68 ±2 } depending on PCM and component dimensions
Unit		see details page 147.						

Dims in mm.

\* Diameter of pins see General Data.

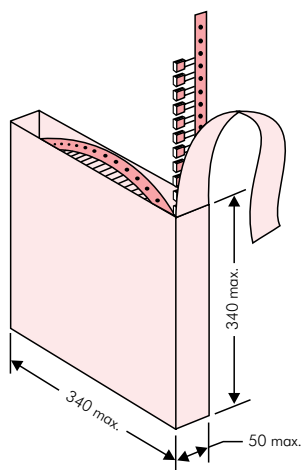
Please clarify customer-specific deviations with the manufacturer.

\* PCM 10 and PCM 15 can be crimped to PCM 7.5.

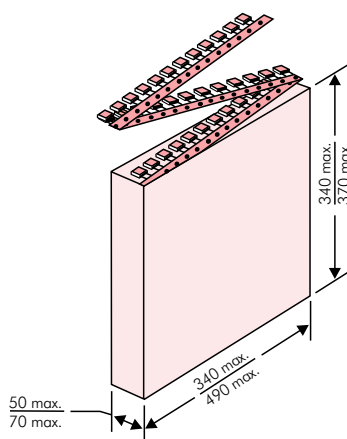
Position of components according to PCM 7.5 (sketch 1). P<sub>0</sub> = 12.7 or 15.0 is possible

## Types of Tape Packaging of Capacitors for Automatic Radial Insertion

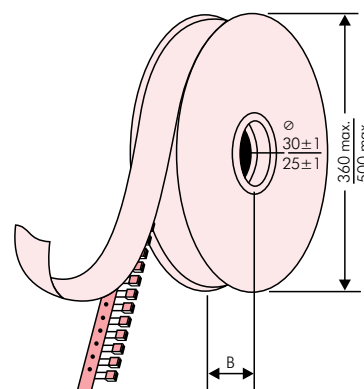
### ■ ROLL Packaging



### ■ AMMO Packaging



### ■ REEL Packaging



## BAR CODE (Labelling)

Labelling of package units in plain text and with alphanumerical Bar Code

Scanner decoding of

- WIMA supplier number
- Customer's P/O number
- Customer's part number
- WIMA confirmation number
- WIMA part number
- Lot number
- Date code
- Quantity

In addition part description of

- article
- capacitance value
- rated voltage
- dimensions
- capacitance tolerance
- packing

as well as gross weight and customer's name are indicated in plain text.

<b>WIMA</b> Best Capacitors Made in Germany		Werk Unna	
Supplier-ID: 123456789	<b>RoHS</b> 2011/65/EU	Date Code: 08.10.10	
Purchase Order No. (P/O): Bestellung xyz		Quantity: 5.000	
Customer Part No.: KUNDETEILENUMMER		Customer No.: 0000100002	
		Gross Weight [g]: 1870	
WIMA Confirmation No.: 0001004053000100		WIMA Part No.: MKS2C034701C00K88D	
Handling Unit:	<b>MKS 2</b>	QTY: 5.000	COO: DE
	MKS 2 0.47 $\mu$ F 63 VDC 3.5x8.5x7.2 RM5		
	Standard 10% Loss - Standard	Drühte 6-2	Week 03/2011
1000067326	Vorlage Debitor Inland		

BARCODE „Code 39“

## 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	ø 500	340 × 340	490 × 370				
						N	O	F	I	H	J	A	C	B	D	
2.5 mm	2.5	7	4.6	0B	5000			2200		2500		–		2800		–
	3	7.5	4.6	0C	5000			2000		2300		–		2300		–
	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		–
5 mm	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		–
	5.5	7	7.2	1G	4000			1000		1200		–		1200		–
	5.5	11.5	7.2	1H	2500			1000		1200		–		1200		–
	6.5	8	7.2	1I	2500			800		1000		–		1000		–
	7.2	8.5	7.2	1J	2500			700		1000		–		1000		–
	7.2	13	7.2	1K	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		600		–		400		–
7.5 mm	2.5	7	10	2A	5000			–		2500		4400		2500		–
	3	8.5	10	2B	5000			–		2200		4300		2300		4150
	4	9	10	2C	4000			–		1700		3200		1700		3100
	4.5	9.5	10.3	2D	3500			–		1500		2900		1400		2700
	5	10.5	10.3	2E	3000			–		1300		2500		1300		–
	5.7	12.5	10.3	2F	2000			–		1000		2200		1100		–
	7.2	12.5	10.3	2G	1500			–		900		1800		1000		–
10 mm	3	9	13	3A	3000			–		1100		2200		–		1900
	4	8.5	13.5	FA	3000			–		900		1600		–		1450
	4	9	13	3C	3000			–		900		1600		–		1450
	4	9.5	13	3D	3000			–		900		1600		–		1400
	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		1100		–		1000
8	12	13	3I	2000			–		400		800		–		740	
15 mm	5	11	18	4B	2400			–		600		1200		–		1150
	5	13	19	FC	1000			–		600		1200		–		1200
	6	12.5	18	4C	2000			–		500		1000		–		1000
	6	14	19	FD	1000			–		500		1000		–		1000
	7	14	18	4D	1600			–		450		900		–		850
	7	15	19	FE	1000			–		450		900		–		850
	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	16	18	4J	900			–		350		700		–		650
	10	18	19	FG	500			–		300		650		–		590
11	14	18	4M	1000			–		300		600		–		540	
22.5 mm	5	14	26.5	5A	1200			–		–		800		–		770
	6	15	26.5	5B	1000			–		–		700		–		640
	7	16.5	26.5	5D	760			–		–		600		–		550
	8	20	28	FH	500			–		–		500		–		480
	8.5	18.5	26.5	5F	500			–		–		480		–		450
	10	22	28	FI	570*			–		–		420		–		380
	10.5	19	26.5	5G	594*			–		–		400		–		360
	10.5	20.5	26.5	5H	594*			–		–		400		–		360
	11	21	26.5	5I	561*			–		–		380		–		350
	12	24	28	FJ	480*			–		–		350		–		310

\* TPS (Tray-Packing-System). Plate versions may have different packing units.  
Samples and pre-production needs on request.

■ Moulded versions.

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## Packing Quantities for Capacitors with Radial Pins in PCM 27.5 mm to 52.5 mm

PCM	Size				bulk	ROLL		pcs. per packing unit				AMMO			
								REEL							
	W	H	L	Codes		H16.5	H18.5	ø 360	ø 500	340 x 340	490 x 370				
					<b>S</b>	<b>N</b>	<b>O</b>	<b>F</b>	<b>I</b>	<b>H</b>	<b>J</b>	<b>A</b>	<b>C</b>	<b>B</b>	<b>D</b>
<b>27.5 mm</b>	9	19	31.5	<b>6A</b>	567*	–	–	–	–	460/340*	–	–	–	420	–
	11	21	31.5	<b>6B</b>	459*	–	–	–	–	380/280*	–	–	–	350	–
	13	24	31.5	<b>6D</b>	378*	–	–	–	–	300	–	–	–	290	–
	13	25	33	<b>FK</b>	405*	–	–	–	–	–	–	–	–	–	–
	15	26	31.5	<b>6F</b>	324*	–	–	–	–	270	–	–	–	250	–
	15	26	33	<b>FL</b>	324*	–	–	–	–	–	–	–	–	–	–
	17	29	31.5	<b>6G</b>	198*	–	–	–	–	–	–	–	–	–	–
	17	34.5	31.5	<b>6I</b>	198*	–	–	–	–	–	–	–	–	–	–
	20	32	33	<b>FM</b>	162*	–	–	–	–	–	–	–	–	–	–
	20	39.5	31.5	<b>6J</b>	162*	–	–	–	–	–	–	–	–	–	–
<b>37.5 mm</b>	9	19	41.5	<b>7A</b>	441*	–	–	–	–	–	–	–	–	–	–
	11	22	41.5	<b>7B</b>	357*	–	–	–	–	–	–	–	–	–	–
	13	24	41.5	<b>7C</b>	294*	–	–	–	–	–	–	–	–	–	–
	15	26	41.5	<b>7D</b>	252*	–	–	–	–	–	–	–	–	–	–
	17	29	41.5	<b>7E</b>	154*	–	–	–	–	–	–	–	–	–	–
	19	32	41.5	<b>7F</b>	140*	–	–	–	–	–	–	–	–	–	–
	20	39.5	41.5	<b>7G</b>	126*	–	–	–	–	–	–	–	–	–	–
	24	45.5	41.5	<b>7H</b>	112*	–	–	–	–	–	–	–	–	–	–
	31	46	41.5	<b>7I</b>	84*	–	–	–	–	–	–	–	–	–	–
	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>	120*	–	–	–	–	–	–	–	–	–	–
	23	34	56	<b>8E</b>	80*	–	–	–	–	–	–	–	–	–	–
	27	37.5	56	<b>8H</b>	84*	–	–	–	–	–	–	–	–	–	–
	33	48	56	<b>8J</b>	25*	–	–	–	–	–	–	–	–	–	–
	37	54	56	<b>8L</b>	25*	–	–	–	–	–	–	–	–	–	–
<b>52.5 mm</b>	25	45	57	<b>9D</b>	70*	–	–	–	–	–	–	–	–	–	–
	30	45	57	<b>9E</b>	60*	–	–	–	–	–	–	–	–	–	–
	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.

\* TPS (Tray-Packing-System). Plate versions may have different packing units.  
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■ Moulded versions.

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Updated data on [www.wima.com](http://www.wima.com)

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: Version code (e.g. Snubber versions)
- Field 15: Capacitance tolerance
- Field 16: Packing
- Field 17 - 18: Pin length (untaped)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
M	K	S	2	C	0	2	1	0	0	1	A	0	0	M	S	S	D
MKS 2				63 VDC		0.01 µF			2.5x6.5x7.2			-		20%	bulk	6 -2	
<b>Type description:</b>				<b>Rated voltage:</b>		<b>Capacitance:</b>			<b>Size:</b>			<b>Tolerance:</b>		<b>Packing:</b>			
SMD-PET = SMDT				50 VDC = B0		22 pF = 0022			4.8x3.3x3 Size 1812 = KA			±20% = M		AMMO H16.5 340x340 = A			
SMD-PEN = SMDN				63 VDC = C0		47 pF = 0047			4.8x3.3x4 Size 1812 = KB			±10% = K		AMMO H16.5 490x370 = B			
SMD-PPS = SMDI				100 VDC = D0		100 pF = 0100			5.7x5.1x3.5 Size 2220 = QA			±5% = J		AMMO H18.5 340x340 = C			
FKP 02 = FKPO				250 VDC = F0		150 pF = 0150			5.7x5.1x4.5 Size 2220 = QB			±2.5% = H		AMMO H18.5 490x370 = D			
MKS 02 = MKS0				400 VDC = G0		220 pF = 0220			7.2x6.1x3 Size 2824 = TA			±1% = E		REEL H16.5 360 = F			
FKS 2 = FKS2				450 VDC = H0		330 pF = 0330			7.2x6.1x5 Size 2824 = TB			...		REEL H16.5 500 = H			
FKP 2 = FKP2				520 VDC = H2		470 pF = 0470			10.2x7.6x5 Size 4030 = VA					REEL H18.5 360 = I			
FKS 3 = FKS3				600 VDC = I0		680 pF = 0680			12.7x10.2x6 Size 5040 = XA					REEL H18.5 500 = J			
FKP 3 = FKP 3				630 VDC = J0		1000 pF = 1100			15.3x13.7x7 Size 6054 = YA					ROLL H16.5 = N			
MKS 2 = MKS2				700 VDC = K0		1500 pF = 1150			2.5x7x4.6 PCM 2.5 = 0B					ROLL H18.5 = O			
MKP 2 = MKP2				800 VDC = L0		2200 pF = 1220			3x7.5x4.6 PCM 2.5 = 0C					BLISTER W12 180 = P			
MKS 4 = MKS4				850 VDC = M0		3300 pF = 1330			2.5x6.5x7.2 PCM 5 = 1A					BLISTER W12 330 = Q			
MKP 4C = MKPC				900 VDC = N0		4700 pF = 1470			3x7.5x7.2 PCM 5 = 1B					BLISTER W16 330 = R			
MKP 4 = MKP4				1000 VDC = O1		6800 pF = 1680			2.5x7x10 PCM 7.5 = 2A					BLISTER W24 330 = T			
MKP 10 = MKP1				1100 VDC = P0		0.01 µF = 2100			3x8.5x10 PCM 7.5 = 2B					Bulk/TPS Standard = S			
FKP 1 = FKP1				1200 VDC = Q0		0.022 µF = 2220			3x9x13 PCM 10 = 3A					...			
MKP-X2 = MKX2				1250 VDC = R0		0.047 µF = 2470			4x9x13 PCM 10 = 3C								
MKP-X1 R = MKX1				1500 VDC = S0		0.1 µF = 3100			5x11x18 PCM 15 = 4B								
MKP-Y2 = MKY2				1600 VDC = T0		0.22 µF = 3220			6x12.5x18 PCM 15 = 4C								
MP 3-X2 = MPX2				2000 VDC = U0		0.47 µF = 3470			5x14x26.5 PCM 22.5 = 5A								
MP 3-X1 = MPX1				2500 VDC = V0		1 µF = 4100			6x15x26.5 PCM 22.5 = 5B								
MP 3-Y2 = MPY2				3000 VDC = W0		2.2 µF = 4220			9x19x31.5 PCM 27.5 = 6A								
MP 3R-Y2 = MPRY				4000 VDC = X0		4.7 µF = 4470			11x21x31.5 PCM 27.5 = 6B								
MKP 4F = MKPF				6000 VDC = Y0		10 µF = 5100			9x19x41.5 PCM 37.5 = 7A								
Snubber MKP = SNMP				250 VAC = 0V		22 µF = 5220			11x22x41.5 PCM 37.5 = 7B								
Snubber FKP = SNFP				275 VAC = 1W		47 µF = 5470			19x31x56 PCM 48.5 = 8D								
GTO MKP = GTOM				300 VAC = 2W		100 µF = 6100			25x45x57 PCM 52.5 = 9D								
DC-LINK MKP 3 = DCP3				305 VAC = AV		220 µF = 6220			...								
DC-LINK MKP 4 = DCP4				350 VAC = BV		1000 µF = 7100											
DC-LINK MKP 4S = DCP5				440 VAC = 4W		1500 µF = 7150											
DC-LINK MKP 5 = DCP5				500 VAC = 5W		...											
DC-LINK MKP 6 = DCP6				...													
DC-LINK HC = DCHC																	
DC-LINK HY = DCHY																	