



**THE DATASHEET OF  
MKS2D041001K00JSSD**



## Metallized Polyester (PET) Capacitors in PCM 5 mm. Capacitances from 0.01 $\mu\text{F}$ to 10 $\mu\text{F}$ . Rated Voltages from 50 VDC to 630 VDC.

### Special Features

- High volume/capacitance ratio
- Self-healing
- AEC-Q200 qualified
- According to RoHS 2015/863/EU

### Typical Applications

For general DC-applications e.g.

- By-pass
- Blocking
- Coupling and decoupling
- Timing

### Construction

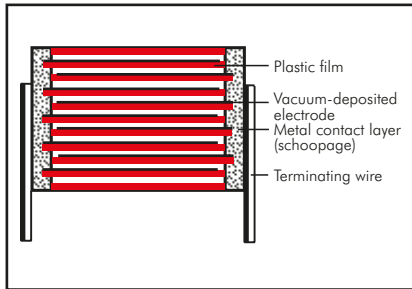
#### Dielectric:

Polyethylene-terephthalate (PET) film

#### Capacitor electrodes:

Vacuum-deposited

#### 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.

### Electrical Data

#### Capacitance range:

0.01  $\mu\text{F}$  to 10  $\mu\text{F}$  (E12-values on request)

#### Rated voltages:

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

#### Capacitance tolerances:

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

#### Operating temperature range:

$U_r = 50 \text{ VDC}$ :  $-55^\circ \text{C}$  to  $+105^\circ \text{C}$

$U_r \geq 63 \text{ VDC}$ :  $-55^\circ \text{C}$  to  $+125^\circ \text{C}$

#### Climatic test category:

55/100/21 in accordance with IEC

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

$U_r$	$U_{\text{test}}$	$C \leq 0.33 \mu\text{F}$	$0.33 \mu\text{F} < C \leq 10 \mu\text{F}$
50 VDC	10 V	$\geq 5 \times 10^3 \text{ M}\Omega$	$\geq 1000 \text{ sec (M}\Omega \times \mu\text{F)}$
63 VDC	50 V	$\geq 1 \times 10^4 \text{ M}\Omega$	$\geq 1250 \text{ sec (M}\Omega \times \mu\text{F)}$
$\geq 100 \text{ VDC}$	100 V	$\geq 1.5 \times 10^4 \text{ M}\Omega$	$\geq 3000 \text{ sec (M}\Omega \times \mu\text{F)}$

Measuring time: 1 min.

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

at f	$C \leq 0.1 \mu\text{F}$	$0.1 \mu\text{F} < C \leq 1.0 \mu\text{F}$	$C > 1.0 \mu\text{F}$
1 kHz	$\leq 8 \times 10^{-3}$	$\leq 8 \times 10^{-3}$	$\leq 10 \times 10^{-3}$
10 kHz	$\leq 15 \times 10^{-3}$	$\leq 15 \times 10^{-3}$	–
100 kHz	$\leq 30 \times 10^{-3}$	–	–

#### Maximum pulse rise time:

Capacitance $\mu\text{F}$	max. pulse rise time V/ $\mu\text{sec}$					
	50 VDC	63 VDC	100 VDC	250 VDC	400 VDC	630 VDC
0.01 ... 0.022	–	35	35	50	80	110
0.033 ... 0.068	–	20	25	50	80	90
0.1 ... 0.47	10	15	20	50	80	–
0.68 ... 1.0	8	12	15	25	–	–
1.5 ... 3.3	8	7.5	10	–	–	–
4.7	5	5	–	–	–	–
6.8	3	3	–	–	–	–
10	2.5	–	–	–	–	–

### 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  $\text{m}/\text{sec}^2$  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	50 VDC/30 VAC*					63 VDC/40 VAC*				
	W	H	L	PCM**	Part number	W	H	L	PCM**	Part number
0.01 $\mu$ F						2.5	6.5	7.2	5	MKS2C021001A00
0.015 "						2.5	6.5	7.2	5	MKS2C021501A00
0.022 "						2.5	6.5	7.2	5	MKS2C022201A00
0.033 "						2.5	6.5	7.2	5	MKS2C023301A00
0.047 "						2.5	6.5	7.2	5	MKS2C024701A00
0.068 "						2.5	6.5	7.2	5	MKS2C026801A00
0.1 $\mu$ F						2.5	6.5	7.2	5	MKS2C031001A00
0.15 "						2.5	6.5	7.2	5	MKS2C031501A00
0.22 "						3	7.5	7.2	5	MKS2C032201B00
0.33 "	2.5	6.5	7.2	5	MKS2B033301A00	3.5	8.5	7.2	5	MKS2C033301C00
0.47 "	3	7.5	7.2	5	MKS2B034701B00	3.5	8.5	7.2	5	MKS2C034701C00
0.68 "	3.5	8.5	7.2	5	MKS2B036801C00	4.5	9.5	7.2	5	MKS2C036801E00
1.0 $\mu$ F	3.5	8.5	7.2	5	MKS2B041001C00	5	10	7.2	5	MKS2C041001F00
1.5 "	4.5	9.5	7.2	5	MKS2B041501E00	5.5	11.5	7.2	5	MKS2C041501H00
2.2 "	5	10	7.2	5	MKS2B042201F00	7.2	13	7.2	5	MKS2C042201K00
3.3 "	5.5	11.5	7.2	5	MKS2B043301H00	7.2	13	7.2	5	MKS2C043301K00
4.7 "	7.2	13	7.2	5	MKS2B044701K00	8.5	14	7.2	5	MKS2C044701M00
6.8 "	8.5	14	7.2	5	MKS2B046801M00	11	16	7.2	5	MKS2C046801N00
10 $\mu$ F	11	16	7.2	5	MKS2B051001N00					

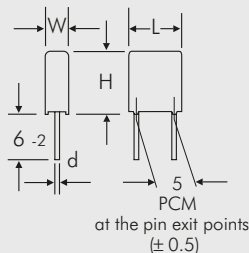
  

Capacitance	100 VDC/63 VAC*					250 VDC/160 VAC*				
	W	H	L	PCM**	Part number	W	H	L	PCM**	Part number
0.01 $\mu$ F	2.5	6.5	7.2	5	MKS2D021001A00	2.5	6.5	7.2	5	MKS2F021001A00
0.015 "	2.5	6.5	7.2	5	MKS2D021501A00	2.5	6.5	7.2	5	MKS2F021501A00
0.022 "	2.5	6.5	7.2	5	MKS2D022201A00	2.5	6.5	7.2	5	MKS2F022201A00
0.033 "	2.5	6.5	7.2	5	MKS2D023301A00	3.5	8.5	7.2	5	MKS2F023301C00
0.047 "	2.5	6.5	7.2	5	MKS2D024701A00	3.5	8.5	7.2	5	MKS2F024701C00
0.068 "	2.5	6.5	7.2	5	MKS2D026801A00	3.5	8.5	7.2	5	MKS2F026801C00
0.1 $\mu$ F	2.5	6.5	7.2	5	MKS2D031001A00	4.5	9.5	7.2	5	MKS2F031001E00
0.15 "	3.5	8.5	7.2	5	MKS2D031501C00	5	10	7.2	5	MKS2F031501F00
0.22 "	3.5	8.5	7.2	5	MKS2D032201C00	5.5	11.5	7.2	5	MKS2F032201H00
0.33 "	4.5	9.5	7.2	5	MKS2D033301E00	7.2	13	7.2	5	MKS2F033301K00
0.47 "	4.5	9.5	7.2	5	MKS2D034701E00	8.5	14	7.2	5	MKS2F034701M00
0.68 "	5	10	7.2	5	MKS2D036801F00	11	16	7.2	5	MKS2F036801N00
1.0 $\mu$ F	7.2	13	7.2	5	MKS2D041001K00					
1.5 "	8.5	14	7.2	5	MKS2D041501M00					
2.2 "	11	16	7.2	5	MKS2D042201N00					

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

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

Dims. in mm.



$d = 0.5 \text{ } \varnothing$

Part number completion:

Tolerance: 20 % = M

10 % = K

5 % = J

Packing: bulk = S

Pin length: 6-2 = SD

Taped version see page 157.

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Continuation page 50

## Continuation

### General Data

Capacitance	400 VDC/200 VAC*					630 VDC/220 VAC*				
	W	H	L	PCM**	Part number	W	H	L	PCM**	Part number
0.01 $\mu\text{F}$	2.5	6.5	7.2	5	MKS2G021001A00	5.5	11.5	7.2	5	MKS2J021001H00
0.015 "	2.5	6.5	7.2	5	MKS2G021501A00	7.2	13	7.2	5	MKS2J021501K00
0.022 "	3.5	8.5	7.2	5	MKS2G022201C00	7.2	13	7.2	5	MKS2J022201K00
0.033 "	4.5	9.5	7.2	5	MKS2G023301E00	7.2	13	7.2	5	MKS2J023301K00
0.047 "	4.5	9.5	7.2	5	MKS2G024701E00	8.5	14	7.2	5	MKS2J024701M00
0.068 "	5.5	11.5	7.2	5	MKS2G026801H00					
0.1 $\mu\text{F}$	7.2	13	7.2	5	MKS2G031001K00					
0.15 "	8.5	14	7.2	5	MKS2G031501M00					
0.22 "	11	16	7.2	5	MKS2G032201N00					

\* 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.

Part number completion:

Tolerance: 20 % = M

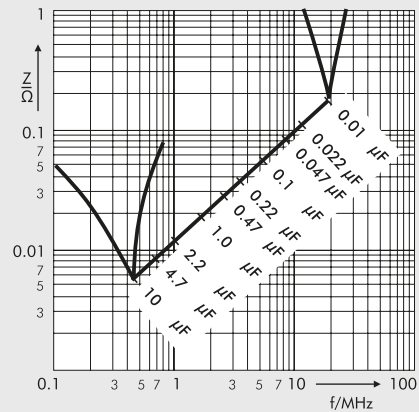
10 % = K

5 % = J

Packing: bulk = S

Pin length: 6-2 = SD

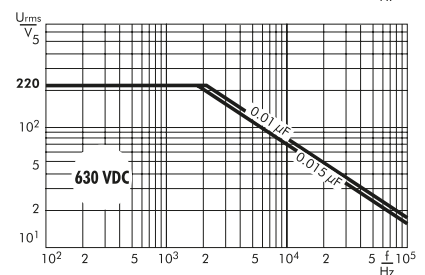
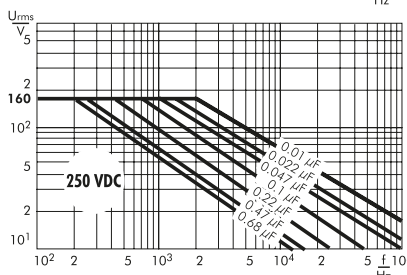
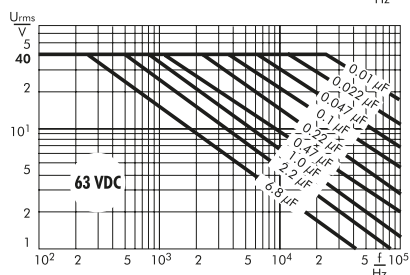
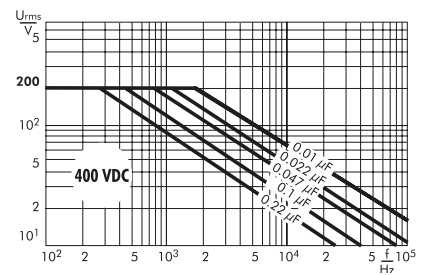
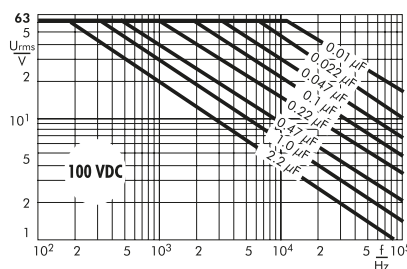
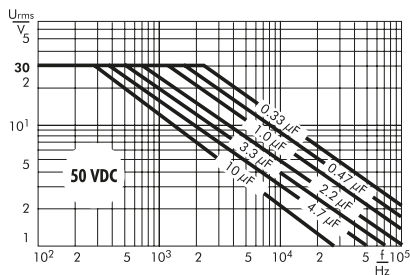
Taped version see page 157.



Impedance change with frequency (general guide).

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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

Internal temperature of the capacitor must be kept as follows:

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

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

#### Single wave soldering

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

#### Double wave soldering

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

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



## WIMA Quality and Environmental Philosophy

### ISO 9001:2015 Certification

ISO 9001:2015 is an international basic standard of quality assurance systems for all branches of industry. The approval according to ISO 9001:2015 of our factories 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
- 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:

- adhesive tapes made of plastic
- metal clips

### RoHS Compliance

According to the RoHS Directive 2015/863/EU as amended from time to time 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 re-frained from using such substances since years already.



WIMA Kondensatoren sind bleifrei konform RoHS 2015/863/EU

WIMA capacitors are lead free in accordance with RoHS 2015/863/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 tapping possible with two feed holes between components

Designation	Symbol	Dimensions for Radial Taping							
		PCM 2.5 tapping	PCM 5 tapping	PCM 7.5 tapping	PCM 10 tapping*	PCM 15 tapping*	PCM 22.5 tapping	PCM 27.5 tapping	
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 error max. 1.0 mm/20 pitch	12.7 ±0.3 error max. 1.0 mm/20 pitch	12.7 ±0.3 error max. 1.0 mm/20 pitch	12.7 ±0.3 error max. 1.0 mm/20 pitch	12.7 ±0.3 error max. 1.0 mm/20 pitch	12.7 ±0.3 error max. 1.0 mm/20 pitch	12.7 ±0.3 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 <sub>▲</sub>	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	0.6 ±0.2	0.6 ±0.2	0.6 ±0.2	0.6 ±0.2	0.6 ±0.2	0.6 ±0.2	0.6 ±0.2	
Package (see also page 158)	▲	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 66 ±2	or REEL Ø 500 max. Ø 25 ±1	B 54 ±2 60 ±2 68 ±2	depending on PCM and component dimensions
Unit		see details page 159.							

▲ When ordering please specify dimension H and required packaging type.

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 alphanumeric Bar Code

- WIMA supplier number
- Date code
- Customer's P/O number
- P/O line
- Customer's part number
- WIMA part number
- Quantity
- WIMA confirmation number
- Country of origin
- Customer name
- Handling unit number
- Week of delivery.

In addition part description of

- article
- capacitance value
- rated voltage
- dimensions
- technical note
- capacitance tolerance
- packing
- connecting information

**WIMA** Best Capacitors Made in Germany  
Werk Aurich

Supplier-ID: LIEF.NR.	Date Code: 20210419
Purchase Order No. (P/O): Bestellung xyz	P/O line: 100
Customer Part No.: KUNDENTEILENUMMER	
WIMA Part No.: MKP1F041006B00KSSD	Quantity: 459
WIMA Confirmation No.: 0001105072000100	RoHS 2011/65/EU
	COO: DE
Customer No.: 0000100002	
Gross Weight [g]: 4557	
<b>WIMA – MKP 10</b>	WIMA Part No.: MKP1F041006B00KSSD
MKP 10 1.0 µF 250 VDC 11x21x31.5 RM27.5	
Standard 10% Lose – Standard Drähte 6–2	
Vorlage Debitor Inland	
	0001105072000100
1002021443	QTY: 459 Week 19/2021

BARCODE PDF417  
BARCODE 2D Datamatrix



## Packing Quantities for Capacitors with Radial Pins in PCM 2.5 mm to 27.5 mm

PCM	Size				bulk	pcs. per packing unit											
						ROLL		REEL				AMMO					
	W	H	L	Codes		S	N	O	Ø 360		Ø 500		340 x 340		490 x 370		
								H16.5	H18.5	H16.5	H18.5	H16.5	H18.5	H16.5	H18.5	H16.5	H18.5
<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		600				640				
<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			3000
	4.5	9.5	10.3	<b>2D</b>	3500					1500		2900		1400			2700
	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	9	13	<b>3C</b>	3000					900		1600					1450
	4	9.5	13	<b>3D</b>	3000					900		1600					1400
	5	11	13	<b>3F</b>	3000					700		1300					1100
	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
	6	12.5	18	<b>4C</b>	2000					500		1000					1000
	7	14	18	<b>4D</b>	1600					450		900					850
	8	15	18	<b>4F</b>	1200					400		800					740
	9	14	18	<b>4H</b>	1200					350		700					650
	9	16	18	<b>4J</b>	900					350		700					650
	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
	8.5	18.5	26.5	<b>5F</b>	500							480					450
	10.5	19	26.5	<b>5G</b>	594*							400					360
	10.5	20.5	26.5	<b>5H</b>	594*							400					360
11	21	26.5	<b>5I</b>	561*							380					350	
<b>27.5 mm</b>	9	19	31.5	<b>6A</b>	567*							460/340*					
	11	21	31.5	<b>6B</b>	459*							380/280*					
	13	24	31.5	<b>6D</b>	378*							300					
	15	26	31.5	<b>6F</b>	324*							270					
	17	29	31.5	<b>6G</b>	198*												
	17	34.5	31.5	<b>6I</b>	198*												
	20	39.5	31.5	<b>6J</b>	162*												

\* for 2-inch transport pitches.

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

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## Packing Quantities for Capacitors with Radial Pins in PCM 37.5 mm to 52.5 mm

PCM	Size				bulk <b>S</b>	pcs. per packing unit									
						ROLL		REEL				AMMO			
	W	H	L	Codes		H16.5	H18.5	Ø 360		Ø 500		340 x 340		490 x 370	
				<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>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*	–	–	–	–	–	–	–	–		
	28	38	41.5	<b>7L</b>	84*	–	–	–	–	–	–	–	–		
	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*	–	–	–	–	–	–	–			

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

\*\*For Snubber capacitors in 2-pin version the PCM is changing to 38.5 respective 49.5 mm. Samples and pre-production needs on request.

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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	

<p><b>Type description:</b></p> <p>SMD-PET = SMDT          SMD-PEN = SMDN          SMD-PPS = SMDI          FKP 02 = FKPO          MKS 02 = MKSO          FKS 2 = FKS2          FKP 2 = FKP2          FKS 3 = FKS3          FKP 3 = FKP 3          MKS 2 = MKS2          MKP 2 = MKP2          MKS 4 = MKS4          MKP 4 = MKP4          MKP 10 = MKP1          FKP 4 = FKP4          FKP 1 = FKP1          MKP-X2 = MKX2          MKP-X1 R = MKX1          MKP-Y2 = MKY2          MKP 4F = MKPF          Snubber MKP = SNMP          Snubber FKP = SNFP          GTO MKP = GTOM          DC-LINK MKP 4 = DCP4          DC-LINK MKP 6 = DCP6          DC-LINK HC = DCHC</p>	<p><b>Rated voltage:</b></p> <p>50 VDC = B0          63 VDC = C0          100 VDC = D0          250 VDC = F0          400 VDC = G0          450 VDC = H0          520 VDC = H2          600 VDC = I0          630 VDC = J0          700 VDC = K0          800 VDC = L0          850 VDC = M0          900 VDC = N0          1000 VDC = O1          1100 VDC = P0          1200 VDC = Q0          1250 VDC = R0          1500 VDC = S0          1600 VDC = T0          1700 VDC = TA          2000 VDC = U0          2500 VDC = V0          3000 VDC = W0          4000 VDC = X0          6000 VDC = Y0          230 VAC = 3Y          275 VAC = 1W          300 VAC = 2W          305 VAC = AW          350 VAC = BW          440 VAC = 4W          ...</p>	<p><b>Capacitance:</b></p> <p>22 pF = 0022          47 pF = 0047          100 pF = 0100          150 pF = 0150          220 pF = 0220          330 pF = 0330          470 pF = 0470          680 pF = 0680          1000 pF = 1100          1500 pF = 1150          2200 pF = 1220          3300 pF = 1330          4700 pF = 1470          6800 pF = 1680          0.01 µF = 2100          0.022 µF = 2220          0.047 µF = 2470          0.1 µF = 3100          0.22 µF = 3220          0.47 µF = 3470          1 µF = 4100          2.2 µF = 4220          4.7 µF = 4470          10 µF = 5100          22 µF = 5220          47 µF = 5470          100 µF = 6100          220 µF = 6220          1000 µF = 7100          1500 µF = 7150          ...</p>	<p><b>Size:</b></p> <p>4.8x3.3x3 Size 1812 = KA          4.8x3.3x4 Size 1812 = KB          5.7x5.1x3.5 Size 2220 = QA          5.7x5.1x4.5 Size 2220 = QB          7.2x6.1x3 Size 2824 = TA          7.2x6.1x5 Size 2824 = TB          10.2x7.6x5 Size 4030 = VA          12.7x10.2x6 Size 5040 = YA          15.3x13.7x7 Size 6054 = YA          2.5x7x4.6 PCM2.5 = 0B          3x7.5x4.6 PCM2.5 = 0C          2.5x6.5x7.2 PCM5 = 1A          3x7.5x7.2 PCM5 = 1B          2.5x7x10 PCM7.5 = 2A          3x8.5x10 PCM7.5 = 2B          3x9x13 PCM10 = 3A          4x9x13 PCM10 = 3C          5x11x18 PCM15 = 4B          6x12.5x18 PCM15 = 4C          5x14x26.5 PCM22.5 = 5A          6x15x26.5 PCM22.5 = 5B          9x19x31.5 PCM27.5 = 6A          11x21x31.5 PCM27.5 = 6B          9x19x41.5 PCM37.5 = 7A          11x22x41.5 PCM37.5 = 7B          19x31x56 PCM 48.5 = 8D          25x45x57 PCM 52.5 = 9D          ...</p>	<p><b>Tolerance:</b></p> <p>±20% = M          ±10% = K          ±5% = J          ±2.5% = H          ±1% = E          ...</p> <p><b>Packing:</b></p> <p>AMMO H16.5 340x340 = A          AMMO H16.5 490x370 = B          AMMO H18.5 340x340 = C          AMMO H18.5 490x370 = D          REEL H16.5 360 = F          REEL H16.5 500 = H          REEL H18.5 360 = I          REEL H18.5 500 = J          ROLL H16.5 = N          ROLL H18.5 = O          BLISTER W12 180 = P          BLISTER W12 330 = Q          BLISTER W16 330 = R          BLISTER W24 330 = T          Bulk/TPS Standard = S          ...</p>	
				<p><b>Version code:</b></p> <p>Standard = 00          Version A1 = 1A          Version A1.1.1 = 1B          Version A2 = 2A          ...</p>	<p><b>Pin length (untaped)</b></p> <p>3.5 ±0.5 = C9          6 -2 = SD          16 ±1 = P1          ...</p> <p><b>Pin length (taped)</b></p> <p>none = 00</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.

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