WIMA MKS 2



Metallized Polyester (PET) Capacitors in PCM 5 mm. Capacitances from 0.01 µF to 10 µF. Rated Voltages from 50 VDC to 630 VDC.

Special Features

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

Typical Applications

For general DC-applications e.g.

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

Construction

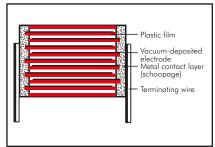
Dielectric:

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 μ F to 10 μ 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:

 $U_r = 50 \text{ VDC}: -55^{\circ} \text{ C to } +105^{\circ} \text{ C}$ $U_{r}^{'} \ge 63 \text{ VDC}: -55^{\circ} \text{ C to } +125^{\circ} \text{ C}$

Climatic test category:

55/100/21 in accordance with IEC

Insulation resistance at +20° C:

Test specifications:

In accordance with IEC 60384-2

Test voltage: 1.6 U_r, 2 sec. Voltage derating:

A voltage derating factor of 1.25 % per K must be applied from +85° C for DC voltages and from +75° C for AC voltages

Reliability:

Operationallife > 300000 hours (+125°C permitted for 1000 hours max. distributed over the entire operating life)

Failure rate < 2 fit (0.5 x U_r and 40° C)

U _r	U_{test}	C ≤ 0.33 µF	0.33 µF < C ≤ 10 µF
50 VDC	10V	≥5 x 10 ³ MΩ	≥1000 sec (MΩ x μF)
63 VDC	50 V	≥1 x 10 ⁴ MΩ	≥1250 sec (MΩ x μ F)
≥100 VDC	100V	≥1.5 x 10 ⁴ MΩ	≥3000 sec (MΩ x μF)

Measuring time: 1 min.

Dissipation factors at $+ 20^{\circ}$ C: tan δ

at f	C ≤ 0.1 µF	$0.1 \ \mu F < C \le 1.0 \ \mu F$	C > 1.0 µF
1 kHz 10 kHz	≤ 8 x 10 ⁻³ ≤ 15 x 10 ⁻³	≤ 8 x 10 ⁻³ ≤ 15 x 10 ⁻³	≤ 10 x 10 ⁻³
100 kHz	$\leq 30 \times 10^{-3}$	- 13 x 10 °	_ _

Maximum pulse rise time:

Capacitance		m	ax. pulse ris	se time V/µ	sec	
μF	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:

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

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 MKS 2



Continuation

General Data

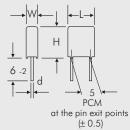
C	Capacitance VV 11 1 10 10 10 10 10								3 VDC/	'40 VAC*
Capacilance	W	H	L	PCM**	Part number	W	Н	L	PCM**	Part number
0.01 µF 0.015 " 0.022 " 0.033 " 0.047 " 0.068 "						2.5 2.5 2.5 2.5 2.5 2.5	6.5 6.5 6.5 6.5 6.5 6.5	7.2 7.2 7.2 7.2 7.2 7.2	5 5 5 5 5	MKS2C021001A00 MKS2C021501A00 MKS2C022201A00 MKS2C023301A00 MKS2C024701A00 MKS2C026801A00
0.1 µF 0.15 " 0.22 " 0.33 " 0.47 " 0.68 "	2.5 3 3.5	6.5 7.5 8.5	7.2 7.2 7.2	5 5 5	MKS2B033301A00 MKS2B034701B00 MKS2B036801C00	2.5 2.5 3 3.5 3.5 4.5	6.5 6.5 7.5 8.5 8.5 9.5	7.2 7.2 7.2 7.2 7.2 7.2	5 5 5 5 5	MKS2C031001A00 MKS2C031501A00 MKS2C032201B00 MKS2C033301C00 MKS2C034701C00 MKS2C036801E00
1.0 µF 1.5 " 2.2 " 3.3 " 4.7 " 6.8 "	3.5 4.5 5 5.5 7.2 8.5	8.5 9.5 10 11.5 13 14	7.2 7.2 7.2 7.2 7.2 7.2	5 5 5 5 5	MKS2B041001C00 MKS2B041501E00 MKS2B042201F00 MKS2B043301H00 MKS2B044701K00 MKS2B046801M00	5 5.5 7.2 7.2 8.5 11	10 11.5 13 13 14 16	7.2 7.2 7.2 7.2 7.2 7.2 7.2	5 5 5 5 5	MKS2C041001F00 MKS2C041501H00 MKS2C042201K00 MKS2C043301K00 MKS2C044701M00 MKS2C046801N00
10 μF	11	16	7.2	5	MKS2B051001N00					

Capacitance				0 VDC, IPCM**	/63 VAC* Part number	W	250 VDC/160 VAC* W H L PCM** Part number					
0.01 µF 0.015 " 0.022 " 0.033 " 0.047 " 0.068 "	2.5 2.5 2.5 2.5 2.5 2.5 2.5	6.5 6.5 6.5 6.5 6.5 6.5	7.2 7.2 7.2 7.2 7.2 7.2	5 5 5 5 5	MKS2D021001A00 MKS2D021501A00 MKS2D022201A00 MKS2D023301A00 MKS2D024701A00 MKS2D026801A00	2.5 2.5 2.5 3.5 3.5 3.5	6.5 6.5 6.5 8.5 8.5	7.2 7.2 7.2 7.2 7.2 7.2 7.2	5 5 5 5 5	MKS2F021001A00 MKS2F021501A00 MKS2F022201A00 MKS2F023301C00 MKS2F024701C00 MKS2F026801C00		
0.1 µF 0.15 " 0.22 " 0.33 " 0.47 " 0.68 "	2.5 3.5 3.5 4.5 4.5 5	6.5 8.5 8.5 9.5 9.5	7.2 7.2 7.2 7.2 7.2 7.2 7.2	5 5 5 5 5 5	MKS2D031001A00 MKS2D031501C00 MKS2D032201C00 MKS2D033301E00 MKS2D034701E00 MKS2D036801F00	4.5 5 5.5 7.2 8.5	9.5 10 11.5 13 14 16	7.2 7.2 7.2 7.2 7.2 7.2 7.2	5 5 5 5 5 5	MKS2F031001E00 MKS2F031501F00 MKS2F032201H00 MKS2F033301K00 MKS2F034701M00 MKS2F036801N00		
1.0 µF 1.5 " 2.2 "	7.2 8.5 11	13 14 16	7.2 7.2 7.2	5 5 5	MKS2D041001K00 MKS2D041501M00 MKS2D042201N00							

^{*} AC voltage: f = 50 Hz; 1.4 x U_{rms} + UDC \leq U_{r}

** PCM = Printed circuit module = pin spacing.

Dims. in mm.



Rights reserved to amend design data without prior notification.

 $d = 0.5 \emptyset$

Part number completion:

Tolerance: 20 % = M

10 % = K

5 % = J

Packing: bulk = SPin length: 6-2 = SD

Taped version see page 157.

Continuation page 50

WIMA MKS 2



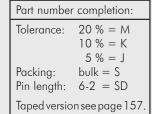
Continuation

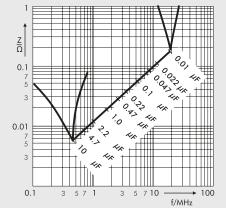
General Data

Capacitance	W	Н		O VDC/ PCM**	200 VAC* Part number	630 VDC/220 VAC* W H L PCM** Part number						
0.01 µF 0.015 " 0.022 " 0.033 " 0.047 " 0.068 "	2.5 2.5 3.5 4.5 4.5 5.5	6.5 6.5 8.5 9.5 9.5 11.5	7.2 7.2 7.2 7.2 7.2 7.2 7.2	5 5 5 5 5	MKS2G021001A00 MKS2G021501A00 MKS2G022201C00 MKS2G023301E00 MKS2G024701E00 MKS2G026801H00	5.5 7.2 7.2 7.2 8.5	11.5 13 13 13 14	7.2 7.2 7.2 7.2 7.2	5 5 5 5	MKS2J021001H00 MKS2J021501K00 MKS2J022201K00 MKS2J023301K00 MKS2J024701M00		
0.1 µF 0.15 " 0.22 "	7.2 8.5 11	13 14 16	7.2 7.2 7.2	5 5 5	MK\$2G031001K00 MK\$2G031501M00 MK\$2G032201N00							

^{*} AC voltage: f = 50 Hz; 1.4 x U_{rms} + UDC \leq U_{r}

Dims. in mm.

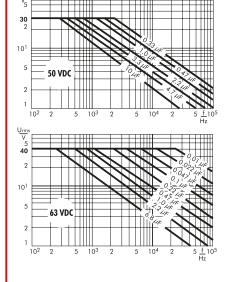


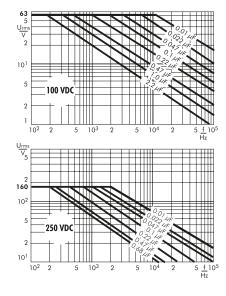


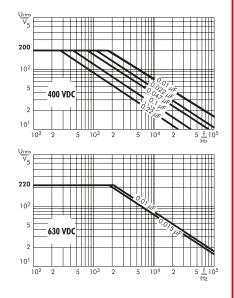
Impedance change with frequency (general guide).

Rights reserved to amend design data without prior notification.

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







^{**} PCM = Printed circuit module = pin spacing.

Recommendation for Processing and Application of Through-Hole Capacitors



Soldering Process

Internal temperature of the capacitor must be kept as follows:

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

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

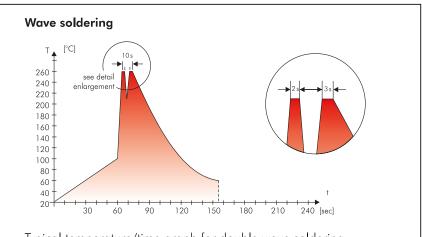
Single wave soldering

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

Double wave soldering

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

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



Typical temperature/time graph for double wave soldering

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
PBB/PBDE
Arsenic
Cadmium
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:

- 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-fraind 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 guidelines of DIN EN ISO 14001:2004 to optimize the production processes with regard to energy and resources.

Typical Dimensions for Taping Configuration



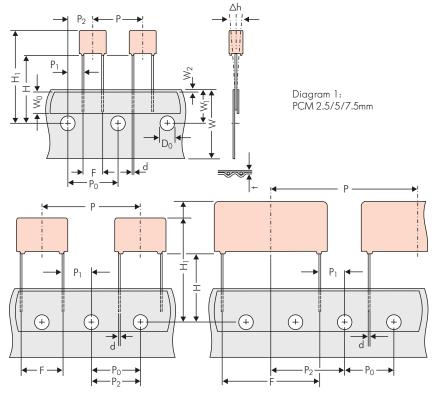


Diagram 2: PCM 10/15 mm

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

				Dimens	ions for Radia	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	W ₁	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 ₂	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	P ₀	cumulative pitch 12.7 ± 0.3 error max. $1.0 \text{ mm/} 20 \text{ pitch}$	cumulative pitch 12.7 ± 0.3 error max. 1.0 mm/20 pitch	cumulative pitch 12.7 ± 0.3 error max. $1.0 \text{ mm/} 20 \text{ pitch}$	cumulative pitch 12.7 ± 0.3 error max. 1.0 mm/20 pitch	cumulative pitch 12.7 ± 0.3 error max. $1.0 \text{ mm/} 20 \text{ pitch}$	cumulative pitch 12.7 ± 0.3 error max. $1.0 \text{ mm/} 20 \text{ pitch}$	cumulative pitch 12.7 ± 0.3 error max. $1.0 \text{ mm/} 20 \text{ pitch}$		
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	НА	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	H ₁	$H+H_{component} < H_1$ 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	*0.5 ±0.05 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} _{-0.05}	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	0.6 ±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		
		ROLL/	AMMO			AMMO				
Package (see also page 158)	A	REEL Ø 360 max. Ø 30 ± 1	$B \begin{bmatrix} 52 \pm 2 \\ 58 \pm 2 \end{bmatrix}$ depending on comp. dimensions		REEL Ø 360 max. B 52 ±2 Ø 30 ±1 B 58 ±2 66 ±2	or REEL Ø 500 max. B		ensions		
Unit					see details page 159.					

 $^{{\}bf \blacktriangle}$ 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). $P_0=12.7$ or 15.0 is possible

Types of Tape Packaging of Capacitors for Automatic Radial Insertion

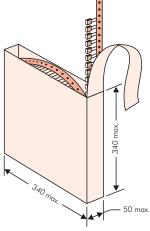


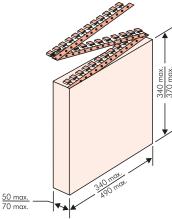
■ ROLL Packaging

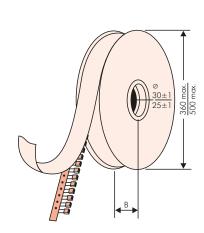


AMMO Packaging

■ REEL Packaging







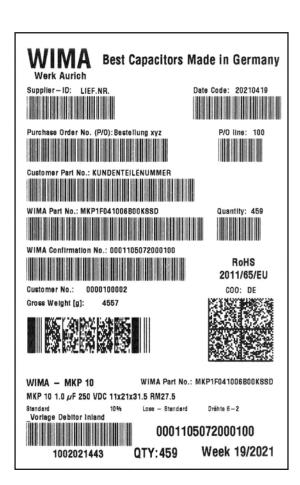
BAR CODE (Labelling)

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

- 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



BARCODE PDF417 BARCODE 2D Datamatrix

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



					pcs. per packing unit																																																		
		Si	7e			RC	LL	<i>α</i> 2		EL	-00	240 8		MO	v 070																																								
PCM		0.			bulk	 ⊔14.5	I ш10 Б	Ø 3 H16.5		Ø 5 H16.5	H18.5	340 ×			× 370 H18.5																																								
	W	Н	<u> </u>	Codes	S	N	O	F	III0.3	H	J.	A	C	B	D																																								
	2.5	7	4.6	OB	5000	22		250				280																																											
	3	7.5	4.6	0C	5000	20		230		-	-	230		-	_																																								
2.5 mm	3.8	8.5	4.6	0D	5000	15		180		-	-	180		-	-																																								
	4.6 5.5	9	4.6 4.6	OE OF	5000 5000	12	00 00	150 120		-		150			_																																								
	2.5	6.5	7.2	1A	5000	22		250		_		280		-																																									
	3	7.5	7.2	1B	5000	20		230		_	_	230			_																																								
	3.5	8.5	7.2	1C	5000	1600		200		-	-	200		-	-																																								
	4.5	6	7.2	1D	6000	1300 1300		150		-	-	150		-	-																																								
	4.5 5	9.5 10	7.2 7.2	1E 1F	4000 3500	13		150 140		-	-	150		-	-																																								
E	5.5	7	7.2	1G	4000	10		120		_	_	120																																											
5 mm	5.5	11.5	7.2	1H	2500	10	00	120	00	-	-	120	00	-	_																																								
	6.5	8	7.2	11	2500		00	100		-	-	100		-	-																																								
	7.2 7.2	8.5 13	7.2 7.2	1J 1K	2500 2000		00	1000 950		-	-	100		-	_																																								
	8.5	10	7.2	1L	2000		00	80			-	80																																											
	8.5	14	7.2	1M	1500		00	800		-	-		00		_																																								
	11	16	7.2	1N	1000	5	00	600		-		-		-		-		-		-		- 4400		-		_		-		_		-		- 4400		- 4400		- 4400		-		-		- 4400		- 4400		- 4400		4400			40		
	2.5	7 8.5	10 10	2A 2B	5000 5000	-	-	250				250 230		41	-																																								
	4	9	10	2C	4000	_		2200 1700		4300 3200		170		4150 3000																																									
7.5 mm	4.5	9.5	10.3	2D	3500	_		150		2900		1400		2700																																									
	5	10.5	10.3	2E	3000	-		130		25		1300		-	-																																								
	5.7 7.2	12.5 12.5	10.3	2F 2G	2000 1500	-		100 90		22 18		110			-																																								
	3	9	13	3A	3000	-		110		22		-		19	200																																								
	4	9	13	3C	3000	-	-	90		16		-			150																																								
10	4	9.5	13	3D	3000	-	-	90		16		-			100																																								
10 mm	5 6	11 12	13 13	3F 3G	3000 2400	-	-	70 55		13 11		-			00																																								
	6	12.5	13	3H	2400		_	55		11		_			000																																								
	8	12	13	31	2000	-	-	40		800		-	_ 740																																										
	5	11	18	4B	2400	-	-	60		12		_			50																																								
	6 7	12.5 14	18 18	4C 4D	2000 1600	-	-	50 45		10	00 00	_			000 850																																								
15	8	15	18	4F	1200		_	40			00	_			40																																								
15 mm	9	14	18	4H	1200	-	-	35	0	7	00	_		6	50																																								
	9	16	18	4J	900	-		350 300			00	-			550																																								
	11 5	14	18 26.5	4M 5A	1000 1200	-		30	10		00 00	_	•	-	70																																								
	6	15	26.5	5B	1000	-	-	_			00	_			540																																								
	7	16.5	26.5	5D	760	-	-	_		6	00	-		5	50																																								
22.5 mm	8.5	18.5	26.5	5F	500	-	-	_			80	-			50																																								
	10.5 10.5	19 20.5	26.5 26.5	5G 5H	594* 594*	-	-	_			00	_			360 360																																								
	11	20.3	26.5	5I	561*	_	400 - - 380 -				350																																												
	9	19	31.5	6A	567*	-	-	-		460/		-		-	-																																								
	11	21	31.5	6B	459* 270*	-	-	-		380/		-		-	-																																								
27.5 mm	13 15	24 26	31.5	6D 6F	378* 324*			_			00 70																																												
27.5	17	29	31.5	6G	198*		_	_		_	-	_																																											
	17	34.5	31.5	61	198*	-	-	-		-	-	_			-																																								
	20	39.5	31.5	6J	162*	-	-	_		-	-	_		-	-																																								

Rights reserved to amend design data without prior notification.

^{*} for 2-inch transport pitches.
* TPS (Tray-Packing-System). Plate versions may have different packing units.
Samples and pre-production needs on request.

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



								pcs	, per p	acking (unit				
		C.				RC	LL	'		EL			AM	МО	
PCM		Si	ze		bulk			Ø3	360	Ø :	500	340	× 340	490	× 370
						H16.5	H18.5	H16.5	H18.5	H16.5	H18.5	H16.5	H18.5	H16.5	H18.5
	W	Н	L	Codes	S	N	0	F	I	Н	J	Α	С	В	D
	9	19	41.5	7A	441*	-	_	_	-	-	_		_		_
	11	22	41.5	7B	357*	-	-	-	-	-	_		_		-
	13	24	41.5	7C	294*	_		_		-	-		-		-
	15 17	26 29	41.5 41.5	7D 7E	252* 154*	-	-	-	-	-	_		_		_
37.5 mm**	19	32	41.5	7F	140*		_				_		_		
37.3 mm	20	39.5	41.5	7G	126*		_	_		_			_		_
	24	45.5	41.5	7H	112*	-	-	-	-	-	_	-			-
	28	38	41.5	7L	84*	-	-	-	-	-	-		-		-
	31 35	46 50	41.5	71 7J	84*	-	-	-	_		-		_		_
	40	55	41.5 41.5	75 7K	35* 28*		_		_		_		_		_
	19	31	56	8D	120*	<u> </u>				<u> </u>					_
	23	34	56	8E	80*		_	_	_		_		_		_
48.5 mm**	27	37.5	56	8H	84*		_	_	-		_		_		_
	33	48	56	8J	25*	-	-	-	-	-	-		_		-
	37	54	56	8L	25*	-			-	-		-			_
	25	45	57	9D	70*	-	-	-	-	-	-		-		_
E2 E	30	45	57	9E	60*	-	-	-	-	-	-		-		-
52.5 mm	35	50	57	9F	25*	-	-	-	-	-		-		_	
	45 45	55 65	57 57	9H 9J	20* 20*		_		-	-		_		_	

Updated data on www.wima.com

Rights reserved to amend design data without prior notification.

^{*} 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.

- 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: 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	К	S	2	С	0	2	1	0	0	1	Α	0	0	M	S	S	D
	MK	S 2		63 \	/DC		0.0	L—— l μF		2.5×6	.5×7.2		-	20%	bulk	6	-2

Type description:	Rated voltage:	Capacitance:	Size:	Tolerance:
SMD-PET = SMDT SMD-PEN = SMDN SMD-PPS = SMDI FKP 02 = FKP0 MKS 02 = MKS0 FKS 2 = FKS2 FKP 2 = FKP2 FKS 3 = FKS3 FKP 3 = KKS2 MKP 2 = MKP2 MKS 4 = MKP4 MKP 10 = MKP1 FKP 4 = FKP4 FKP 1 = FKP1 MKP-X2 = MKX2 MKP-X1 R = MKX1 MKP-Y2 = MKY2 MKP 4F = SNMP Snubber MKP = SNMP Snubber FKP = SNMP GTO MKP = GTOM DC-LINK MKP 4 = DCP4 DC-LINK MKP 6 = DCP6 DC-LINK HC = DCHC	50 VDC	22 pF	4.8x3.3x3 Size1812 = KA 4.8x3.3x4 Size1812 = KB 5.7x5.1x3.5 Size2220 = QA 5.7x5.1x4.5 Size2220 = QB 7.2x6.1x3 Size2824 = TA 7.2x6.1x5 Size2824 = TB 10.2x7.6x5 Size4030 = VA 12.7x10.2x6 Size5040 = XA 15.3x13.7x7 Size6054 = YA 2.5x7x4.6 PCM2.5 = OB 3x7.5x4.6 PCM2.5 = OC 2.5x6.5x7.2 PCM5 = 1A 3x7.5x7.2 PCM5 = 1B 2.5x7x10 PCM7.5 = 2A 3x8.5x10 PCM7.5 = 2B 3x9x13 PCM10 = 3C 5x11x18 PCM10 = 3C 5x11x18 PCM15 = 4B 6x12.5x18 PCM15 = 4C 5x14x26.5 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	#20% = M #10% = K #5% = J #2.5% = H #11% = E #10 = E #10 = E #11 = E #11 = E #11 = E #11 = E #12 = E #13 = E #14 = E #15 = E #16.5 340 × 340 = C #16.5 340 × 340 = C #16.5 360 = E #16.5 360 = E #16.5 500 = H #16.5 500 = H #16.5 500 = H #16.5 500 = J #16.5 FOLL H16.5 = N #16.5 FOLL H16.5 = N #16.5 FOLL H16.5 = O #16.5 FOLL H16
	350 VAC = BW 440 VAC = 4W 	1500 μF = 7150 	Version code: Standard = 00 Version A1 = 1A	Pin length (untaped) 3.5 ±0.5 = C9 6 -2 = SD

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.

= 2A

Version A2

Pin length (taped)