# WIMA FKS 3



# Polyester (PET) Film/Foil Capacitors for Pulse Applications in PCM 7.5 mm to 15 mm. Capacitances from 1000 pF to 0.22 $\mu$ F. Rated Voltages from 100 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

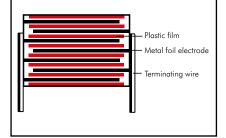
**Encapsulation:** 

**Terminations:** Tinned wire.

Marking:

#### Dielectric:

Polyethylene-terephthalate (PET) film Capacitor electrodes: Metal foil Internal construction:



Solvent-resistant, flame-retardant plastic

case with epoxy resin seal, UL 94 V-0

Colour: Red. Marking: Black.

### **Electrical Data**

Capacitance range: 1000 pF to 0.22 µF (E12-values on request) **Rated voltages:** 100 VDC, 250 VDC, 400 VDC, 630 VDC Capacitance tolerances: ± 20%, ±10%, ±5%, **Operating temperature range:** –55° C to +105° C Test specifications: In accordance with IEC 60384-11 Climatic test category: 55/100/56 in accordance with IEC Insulation resistance at +20° C:  $\geq 1 \times 10^5 M\Omega$ Measuring voltage: 100 V/1 min. Test voltage: 2 U<sub>r</sub>, 2 sec. Maximum pulse rise time: 1000 V/µsec.

### Dissipation factors at +20° C: tan $\delta$

at f	C≤0,22 µF
1 kHz 10 kHz 100 kHz	≤ 7 x 10 <sup>-3</sup> ≤ 15 x 10 <sup>-3</sup> ≤ 20 x 10 <sup>-3</sup>

#### 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:**

Operational life > 300 000 hours Failure rate < 5 fit (0.5 x U\_r and 40° 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:

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

### Bump test:

4000 bumps at 390 m/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.

# WIMA FKS 3





### General Data

Constitution			]	00 VDC	/63 VAC*			25	0 VDC/	160 VAC*
Capacitance	W	Н	L	PCM**	Part number	W	H	L	PCM**	Part number
1000 pF	3	8.5	10	7.5	FKS3D011002B00	3	8.5	10	7.5	FKS3F011002B00
1500 "	3	8.5	10	7.5	FKS3D011502B00	3	8.5	10	7.5	FKS3F011502B00
2200 "	3	8.5	10	7.5	FKS3D012202B00	3	8.5	10	7.5	FKS3F012202B00
3300 "	3	8.5	10	7.5	FKS3D013302B00	3	8.5	10	7.5	FKS3F013302B00
4700 "	3	8.5	10	7.5	FKS3D014702B00	3	8.5	10	7.5	FKS3F014702B00
						3	9	13	10	FKS3F014703A00
6800 "	3	8.5	10	7.5	FKS3D016802B00	3	8.5	10	7.5	FKS3F016802B00
						3	9	13	10	FKS3F016803A00
0.01 µF	3	8.5	10	7.5	FKS3D021002B00	3	9	13	10	FKS3F021003A00
	3	9	13	10	FKS3D021003A00					
0.015 "	3	8.5	10	7.5	FKS3D021502B00	4	9.5	13	10	FKS3F021503D00
	3	9	13	10	FKS3D021503A00					
0.022 "	3	8.5	10	7.5	FKS3D022202B00	5	11	13	10	FKS3F022203F00
	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					
					•	-				
			40	0 VDC/	/250 VAC*			63	0 VDC/	'300 VAC*
Capacitance	W	H	L	PCM**	Part number	W	H		PCM**	

( anacitanco					200 1/10	000 VDC/000 VAC							
Capacitance	W H L PCM** Part number		Part number	$\mathbb{W}$	Н	L	PCM**	Part number					
1000 pF	3	9	13	10	FKS3G011003A00	3	9	13	10	FKS3J011003A00			
1500 "	3	9	13	10	FKS3G011503A00	3	9	13	10	FKS3J011503A00			
2200 "	3	9	13	10	FKS3G012203A00	3	9	13	10	FKS3J012203A00			
3300 "	3	9	13	10	FKS3G013303A00	4	9.5	13	10	FKS3J013303D00			
4700 "	3	9	13	10	FKS3G014703A00	4	9.5	13	10	FKS3J014703D00			
6800 "	3	9	13	10	FKS3G016803A00	5	11	13	10	FKS3J016803F00			
0.01 µF	4	9.5	13	10	FKS3G021003D00	6	12	13	10	FKS3J021003G00			
0.01 µF 0.015 "	4 5	9.5 11	13 13	10 10	FKS3G021003D00 FKS3G021503F00	6 6	12 12.5	13 18	10 15	FKS3J021003G00 FKS3J021504C00			
		9.5 11 12				, in the second s				· · · · · · · · · · · ·			
0.015 "	5	11	13	10	FKS3G021503F00	, in the second s	12.5	18	15	FKS3J021504C00			
0.015 " 0.022 "	5 6	11 12	13 13	10 10	FKS3G021503F00 FKS3G022203G00	6 7	12.5 14	18 18	15 15	FKS3J021504C00 FKS3J022204D00			
0.015 " 0.022 " 0.033 "	5 6	11 12 12.5	13 13 18	10 10 15	FKS3G021503F00 FKS3G022203G00 FKS3G023304C00	6 7	12.5 14	18 18	15 15	FKS3J021504C00 FKS3J022204D00			

\* AC voltage: f = 50 Hz; 1.4 x U\_{rms} + 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.

Part number completion:Tolerance:20 % = M10 % = K5 % = JPacking:bulk = SPin length: $6 \cdot 2 = SD$ Taped version see page 161.

Rights reserved to amend design data without prior notification.

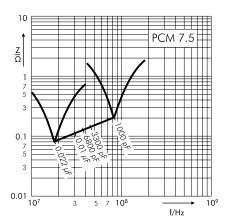
d = 0.8 if PCM = 15

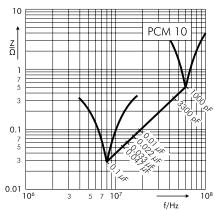
**Continuation page 39** 

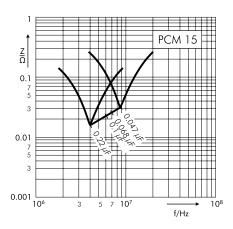
# WIMA FKS 3

### Continuation

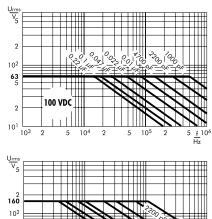
Impedance change with frequency (general guide).

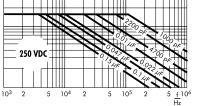






Permissible AC voltage in relation to frequency at 10° C internal temperature rise (general guide).

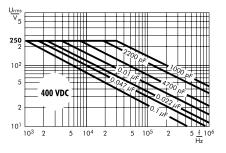


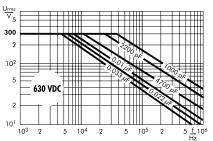


5

2

10<sup>1</sup>







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

### **Soldering Process**

Internal temperature of the capacitor must be kept as follows:

Polyester:	preheating: soldering:	$\begin{array}{l} T_{max.} \leqslant 125^{\circ}\text{C} \\ T_{max.} \leqslant 135^{\circ}\text{C} \end{array}$
Polypropylene:	preheating: soldering:	$\begin{array}{l} T_{max.} \leqslant 100^{\circ}\mathrm{C} \\ T_{max.} \leqslant 110^{\circ}\mathrm{C} \end{array}$

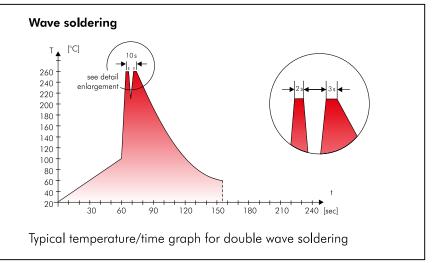
#### Single wave soldering

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

#### Double wave soldering

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

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



### WIMA Quality and Environmental Philosophy

### ISO 9001:2015 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 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
- PCB
- CFC
- Hydrocarbon chloride
- Chromium 6+

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

- PBB/PBDE

- Arsenic

- Mercury

- etc.

- 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 2011/65/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 refraind from using such substances since years already.



Tape for lead-free WIMA capacitors

### **DIN EN ISO 14001:2004**

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



### Typical Dimensions for Taping Configuration

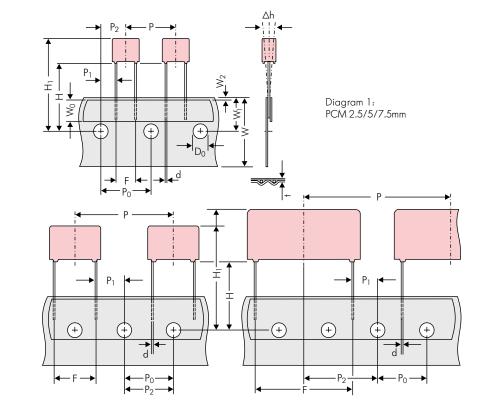


Diagram 2: PCM 10/15 mm

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

				Dimen	sions for Radial	Taping						
Designation	Symbol	PCM 2.5 taping	PCM 5 taping	PCM 7.5 taping	PCM 10 taping*	PCM 15 taping*	PCM 22.5 taping	PCM 27.5 taping				
Carrier tape width	W	18.0 ±0.5	18.0 ±0.5	18.0 ±0.5	18.0 ±0.5	18.0 ±0.5	18.0 ±0.5	18.0 ±0.5				
Hold-down tape width	W <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	W1	9.0 ±0.5	9.0 ±0.5	9.0 ±0.5	9.0 ±0.5	9.0 ±0.5	9.0 ±0.5	9.0 ±0.5				
Hold-down tape position	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	Р	12.7 ±1.0	12.7 ±1.0	12.7 ±1.0	25.4 ±1.0	25.4 ±1.0	38.1 ±1.5	38.1 ±1.5 or 50.8 ±1.5				
Feed hole pitch	Po	cumulative pitch 12.7 ±0.3 error max. 1.0 mm/20 pitch	12.7 ±0.3 cumulative pitch error max. 1.0 mm/20 pitch	cumulative pitch error max. 1.0 mm/20 pitch	12.7 ±0.3 cumulative pitch error max. 1.0 mm/20 pitch	cumulative pitch error max. 1.0 mm/20 pitch	cumulative pitch 12.7 ±0.3 error max. 1.0 mm/20 pitch	cumulative pitch 12.7 ±0.3 error max. 1.0 mm/20 pitch				
Feed hole centre to pin	P1	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	н	16.5 ±0.3	16.5 ±0.3	16.5 ±0.5	16.5 ±0.5	16.5 ±0.5	16.5 ±0.5	16.5 ±0.5				
edge of the component		18.5 ±0.5	18.5 ±0.5	18.5 ±0.5	18.5 ±0.5	18.5 ±0.5	18.5 ±0.5	18.5 ±0.5				
Feed hole centre to top edge of the component	H1	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	$^{\circ}0.5 \pm 0.05 \text{ or } 0.6 + 0.06 \\ -0.05 $	$^{\circ}0.5 \pm 0.05 \text{ or } 0.6 + 0.06 \\ -0.05 $	0.8 +0,08	0.8 +0,08	0.8 +0.08				
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 162)		$\begin{array}{c c} \mbox{REEL} & \mbox{$^{\phi}$ 360 max.} \\ \mbox{$\phi$ 30 \pm 1$} \end{array} & \mbox{$B$} & \mbox{$52 \pm 2$} \\ \mbox{$58 \pm 2$} \\ \mbox{$comp. dimension} \end{array} \\ \begin{array}{c} \mbox{depending on} \\ \mbox{$comp. dimension} \end{array}$		REEL # 360 max. B 52 ±2 # 85 # 2 or REEL # 500 max. B 60 ±2 # 25 ±1 66 ±2 # 25 ±1 66 ±2 # 26 ±166 ±166 ±166 ±166 ±166 ±166 ±166 ±								
Unit					see details page 163.							

Dims in mm.

• Diameter of pins see General Data.

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

Please clarify customer-specific deviations with the manufacturer.

#### Types of Tape Packaging of **Capacitors for Automatic Radial Insertion** ROLL Packaging AMMO Packaging REEL Packaging Xor Xor 360 max. 500 max. 340 nax 340 340 max. <u>50 max.</u> 70 max. - 50 max В BAR CODE (Labelling) BARCODE PDF417 Labelling of package units in plain text and with BARCODE 2D Datamatrix WIMA Best Capacitors Made in Germany alphanumerical Bar Code Werk Aurich WIMA supplier number Supplier-ID: LIEF.NR. Date Code: 20210419 • Date code • Customer's P/O number • P/O line Purchase Order No. (P/O); Bestellung xvz P/O line: 100 • Customer's part number WIMA part number Customer Part No.: KUNDENTEILENUMMER Quantity • WIMA confirmation number • Country of origin WIMA Part No.: MKP1F041006B00KSSD Quantity: 459 • Customer name • Handling unit number • Week of delivery. WIMA Confirmation No.: 0001105072000100 RoHS In addition part description of 2011/65/EU - article Customer No.: 0000100002 C00: DF - capacitance value Gross Weight [g]: 4557 - rated voltage - dimensions - technical note - capacitance tolerance - packing WIMA - MKP 10 WIMA Part No .: MKP1F041006B00KSSD - connecting information MKP 10 1.0 µF 250 VDC 11x21x31.5 RM27.5 Drähte 6-2 Standard 10% Lose - Standard Vorlage Debitor Inland 0001105072000100 Week 19/2021 QTY:459 1002021443

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

				pcs. per packing unit ROLL REEL AMMO								
PCM		Si	ze		bulk	ROLL	Ø 360	EL Ø 500	<b>AM</b> 340 × 340	<b>MO</b> 490 × 370		
1 CIVI					DUIK	H16.5 H18.5	H16.5 H18.5	H16.5 H18.5	H16.5 H18.5			
	W	Н	L	Codes	S	N O	F I	H J	A C	B D		
	2.5	7	4.6	0B	5000	2200	2500	-	2800	-		
2 5	3	7.5	4.6	0C	5000	2000	2300	-	2300	-		
2.5 mm	3.8	8.5	4.6	0D	5000	1500	1800	-	1800	-		
	4.6 5.5	9 10	4.6 4.6	OE OF	5000 5000	1200 900	1500 1200	-	1500 1200	_		
	2.5	6.5	7.2	1A	5000	2200	2500	_	2800			
	3	7.5	7.2	1B	5000	2000	2300	_	2300	_		
	3.5	8.5	7.2	1C	5000	1600	2000	-	2000	-		
	4.5	6	7.2	1D	6000	1300	1500	-	1500	_		
	4.5	9.5	7.2	1E	4000	1300	1500	-	1500	-		
	5	10	7.2	1F	3500	1100	1400	-	1400	-		
5 mm	5.5	7	7.2	1G	4000	1000	1200	-	1200	-		
	5.5	11.5	7.2	1H	2500	1000	1200	-	1200	-		
	6.5 7.2	8 8.5	7.2 7.2	11 1J	2500 2500	800 700	1000 1000	-	1000 1000	_		
	7.2	13	7.2	1J 1K	2000	700	950	_	1000	_		
	8.5	10	7.2	11	2000	600	800	-	800	_		
	8.5	14	7.2	1M	1500	600	800	-	800	-		
	11	16	7.2	1N	1000	500	600	_	640	_		
	2.5	7	10	2A	5000	-	2500	4400	2500	-		
	3	8.5	10	2B	5000	-	2200	4300	2300	4150		
7.5 mm	4	9	10	2C	4000	-	1700	3200	1700	3000		
7.5 mm	4.5 5	9.5 10.5	10.3 10.3	2D 2E	3500 3000	-	1500 1300	2900 2500	1400 1300	2700		
	5 5.7	10.5	10.3	2E 2F	2000	-	1000	2300	1300	_		
	7.2	12.5	10.3	2G	1500	_	900	1800	1000	_		
	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		
10	4	9.5	13	3D	3000	-	900	1600	-	1400		
10 mm	5	10	13.5	FB	2000	-	700	1300	-	1200		
	5 6	11 12	13 13	3F 3G	3000 2400	-	700 550	1300 1100	-	1100 1000		
	6	12.5	13	30 3H	2400	_	550	1100	_	1000		
	8	12.0	13	31	2000	_	400	800	_	740		
	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		
15 mm	7 8	15 15	19 18	FE 4F	1000 1200	-	450 400	900 800	-	850 740		
	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		
	5	14	26.5	5A	1200	-	-	800	-	770		
	6 7	15 16.5	26.5 26.5	5B 5D	1000 760	-	-	700 600	-	640 550		
	8	20	26.5	FH	500	-	_	500	_	550 480		
22 5	8.5	18.5	26.5	5F	500	_	_	480	_	450		
22.5 mm	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	51	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.

Rights reserved to amend design data without prior notification.



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

								pcs.	per p	acking u	unit				
		Si	70			RC	OLL		RE	EL				мо	
PCM		01.	20		bulk				0	Ø 500			× 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	1	н	J	Α	С	В	D
	9	19	31.5	6A	567*	-	_	_		460/340*		_		-	-
	11	21	31.5	6B	459*	-	-	-		380/			_	-	
	13	24	31.5	6D	378*	-	-	-		3	00		-	-	-
	13	25	33	FK	405*	-	-	-			-		-	-	-
27.5 mm	15	26	31.5	6F	324*	-	-	-		2	70	-	-	-	-
_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	15	26	33	FL	324*		-	-		-	-	-	-	-	-
	17 17	29 34.5	31.5 31.5	6G 61	198* 198*		_			-	-		-	-	-
	20	34.5	33	FM	162*		_	_			_	-	_	_	
	20	39.5	31.5	6J	162*	-	-	-		-		_		-	
	9	19	41.5	7A	441*	-	_	-		-	-	-	_	-	-
	11	22	41.5	7B	357*	-	-	-		-			-	-	-
	13 15	24 26	41.5 41.5	7C 7D	294* 252*	-	-	-			-		-	_	
	17	20	41.5	7E	154*		_	_			_		_		
37.5 mm	19	32	41.5	7F	140*	-	_	-		-	_		_	-	_
37.5 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 71	84* 35*	-	-	-			-	-	-	-	-
	35 40	50 55	41.5 41.5	7J 7K	35* 28*	-	-			-		-		-	
	19	31	56	8D	120*								_		
	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*	-	-	-		-	-		-	-	-
52.5 mm	30	45 50	57	9E 9F	60* 25*	-	-	-		-	-		-	-	-
52.5 mm	35 45	50 55	57 57	9F 9H	25* 20*	-	_	_		-			_	-	
	45 45	65	57	9J	20* 20*	-	_			-	_			-	_

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

Moulded versions. Rights reserved to amend design data without prior notification.

Updated data on www.wima.com

### -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
Μ	К	S	2	с	0	2	1	0	0	1	A	0	0	M	S	S	D
	MKS	2		63 \	/DC		0.0	1μF		2.5×6	.5x7.2	-	-	20%	bulk	6 -2	
																_	
MD-PI MD-PI MD-PI (P 02 (KS 02 (F 2 (KS 2 (F 3 (KP 2 (KS 4 (KP 4 (KP 4 (KP 4 (KP 4 (KP 4 (KP 4 (KP 4 (KP 4 (KP-Y2)) (KP-Y2) (KP 4 (KP 4)) (KP 4 (KP 4 (KP 4)) (KP 4 (KP 4)) (KP 4) (KP	EN PS 2 2 0 2 1 R 2 5 (1 (2 (1 (2 -Y2 F F MKP er FKP	= SK $= SK$ $= SK$ $= FKI$	10102000000000000000000000000000000000	Rated v 50 VDC 63 VDC 250 VDC 400 VDC 400 VDC 400 VDC 400 VDC 630 VDC 630 VDC 630 VDC 800 VDC 800 VDC 800 VDC 1000 VE 1000 VE 1200 VE 1300 VE 1400 VE 1000	= B(C) = C = C = C = C = C = C = C = C = C =	)       22         )       47         )       10         )       15         )       22         )       33         2       47         )       68         10       15         )       22         0       333         )       47         1       68         )       0.0         0       0.15         0       0.22         0       0.1         0       0.2         0       0.2         0       0.2         0       1.1         0       2.2         0       1.1         0       2.2         0       1.1         0       2.2         0       1.1         0       2.2         0       1.0         0       2.2         0       1.0         0       2.2         0       1.0         0       2.2         0       1.0         0       2.2         0       1.0	pF       0 pF       1 µF       0 µF       0 µF       0 µF	$\begin{array}{l} \text{Ince:} \\ = 0022 \\ = 0047 \\ = 0100 \\ = 0150 \\ = 0220 \\ = 0330 \\ = 0470 \\ = 0680 \\ = 1100 \\ = 1150 \\ = 1220 \\ = 1330 \\ = 1470 \\ = 1470 \\ = 2100 \\ = 2220 \\ = 2470 \\ = 2470 \\ = 3100 \\ = 3220 \\ = 3470 \\ = 3470 \\ = 3220 \\ = 3470 \\ = 5100 \\ = 5220 \\ = 5470 \\ = 5470 \\ = 5100 \\ = 5220 \\ = 5470 \\ = 5100 \\ = 5220 \\ = 5470 \\ = 6100 \\ = 7150 \end{array}$	4.8x 5.7x 5.7x 7.2x 7.2x 10.2: 12.7s 15.3s 2.5x 3x7. 2.5x 3x7. 2.5x 3x8. 3x9: 4x9: 5x11 6x12 5x14 6x15 9x19 11x2 9x19 11x2 19x3 25x4 	3.3 x 3 3 3.3 x 4 3 5.1 x 3.4 5.1 x 3.4 5.1 x 4.5 5.1 x 4.6 6.1 x 5 3 x 7.6 x 5 x 7.6 x 5 x 10.2 x 6 5 x 4.6 F 6.5 x 7.2 5 x 7.2 F 7 x 10 P 5 x 10 P x 13 PC x 31.5 x 31.5 x 31.5 x 4.6 F x 4.7	CM7.5 CM7.5 M 10 M 10 CM 15 PCM 15 PCM 22 PCM 22 PCM 27 PCM 27 PCM 37 PCM 37 PCM 38 PCM 48 PCM 52	2 = K G = G G =		Toleran ±20% ±10% ±2.5% ±1%  Packing AMMO AMO A	= M = K = J = H = E H16.5 3 H16.5 4 H18.5 3 H18.5 4 6.5 360 6.5 500 8.5 500 6.5 8.5 W12 18 W12 33 W16 33 W16 33 W16 33 W16 33 W16 33 Standa	90×37 40×34 90×37 30 30 30 30 30 30 ard	$\begin{array}{l} 0 = B \\ 0 = C \end{array}$

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.

## **Mouser Electronics**

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

### WIMA:

FKS3-1500/100/10P7 FKS3D011502B00KSSD FKS3D016802B00KSSD FKS3F023303G00MSSD
FKS3F024704C00MSSD FKS3F031504J00MSSD FKS3F026804D00MSSD FKS3F031004F00MSSD
FKS3D022202B00KC00 FKS3F013302B00KSSD FKS31/100/10P10T FKS3-3300/250/10P7
FKS3J013303D00KSSD         FKS3D031003G00JSSD         FKS3022/100/10P7A         FKS301/100/20P7         FKS3-6800/400/10P10
FKS3D031003G00KJ00 FKS3D014702B00MF00 FKS3G012203A00KSSD FKS3D011002B00JSSD
FKS3D011002B00KSSD FKS3D032204F00JD00 FKS3F014702B00KSSD FKS3D016802B00MA00
FKS3F026804D00KSSD FKS3G012203A00JSSD FKS3D011002B00MSSD FKS3D024703D00JD00
FKS3D011002B00MA00 FKS3G013303A00KSSD FKS3G013303A00JSSD FKS3G011003A00MSSD
FKS3D013302B00JSSD FKS3D013302B00KSSD FKS3D014702B00MSSD FKS3D021002B00KSSD
FKS3D022202B00JSSD FKS3D024703D00JSSD FKS3D012202B00MSSD FKS3F021003A00KSSD
FKS3F021003A00JSSD FKS3J012203A00KSSD FKS3D021002B00JSSD FKS3D022202B00KSSD
FKS3G014703A00KSSD FKS3J011003A00KSSD FKS3F011002B00KSSD FKS3D022203A00KSSD
FKS3D022202B00MSSD FKS3F011002B00KF00 FKS3F011002B00KH00 FKS3F011002B00KI00
FKS3F011002B00KJ00 FKS3F011002B00MA00 FKS3F011002B00MB00 FKS3J022204D00KF00
FKS3J022204D00MF00 FKS3J014703D00KF00 FKS3J014703D00MF00 FKS3J016803F00JF00
FKS3J016803F00KF00 FKS3J016803F00MF00 FKS3J022204D00JF00 FKS3J012203A00KF00
FKS3J012203A00MF00 FKS3J013303D00JF00 FKS3J013303D00KF00 FKS3J013303D00MF00
FKS3J014703D00JF00 FKS3G011003A00KF00 FKS3G011003A00JF00 FKS3J011503A00JF00
FKS3J011503A00KF00 FKS3J011503A00MF00 FKS3J012203A00JF00 FKS3G031004J00KF00
FKS3G031004J00MF00 FKS3J011003A00JF00 FKS3J011003A00KF00 FKS3J011003A00MF00
FKS3G011003A00MF00 FKS3G022203G00KF00 FKS3G022203G00MF00 FKS3G024704D00JF00
FKS3G024704D00KF00 FKS3G024704D00MF00 FKS3G031004J00JF00 FKS3G021003D00KF00
FKS3G021003D00MF00 FKS3G021503F00JF00 FKS3G021503F00KF00 FKS3G021503F00MF00
FKS3G022203G00JF00 FKS3G014703A00KF00 FKS3G014703A00MF00 FKS3G016803A00JF00
FKS3G016803A00KF00 FKS3G016803A00MF00 FKS3G021003D00JF00