WIMA FKP 02



Polypropylene (PP) Film and Foil Capacitors for Pulse Applications in PCM 2.5 mm

Special Features

- Pulse duty construction
- PCM 2.5 mm
- Close tolerances up to ±2.5%
- Very low dissipation factor
- Negative capacitance change versus temperature
- Very low dielectric absorption
- According to RoHS 2002/95/EC

Typical Applications

For high frequency applications e.g.

- Sample and hold
- Timing
- LC-Filtering
- Oscillating circuits
- Audio equipment

Construction

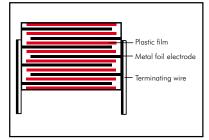
Dielectric:

Polypropylene (PP) 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: Black. Epoxy resin seal: Yellow

Electrical Data

Capacitance range:

 $100 \text{ pF to } 0.01 \text{ } \mu\text{F (E12-values on request)}$

Rated voltages:

63 VDC, 100 VDC, 250 VDC, 400 VDC

Capacitance tolerances:

±10%, ±5%, ±2.5%

Operating temperature range:

–55° C to +100° C

Test specifications:

In accordance with IEC 60384-13 and EN 131800

Climatic test category:

55/100/21 in accordance with IEC

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

 $\geq 5 \times 10^5 M\Omega$

(mean value: $1 \times 10^6 M\Omega$)

Measuring voltage:

 $\begin{array}{lll} U_r = & 63 \text{ V: } U_{test} = & 50 \text{ V/1 min.} \\ U_r \geqslant & 100 \text{ V: } U_{test} = & 100 \text{ V/1 min.} \\ \end{array}$

Test voltage: 2 U_r, 2 sec.

Maximum pulse rise time:

1000 V/µsec for pulses equal to the rated voltage

Dielectric absorption:

0.05%

Temperature coefficient:

 -200×10^{-6} /° C (typical)

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

at f	C ≤ 0.01 µF
1 kHz 10 kHz	≤ 4 x 10 ⁻⁴ ≤ 4 x 10 ⁻⁴
100 kHz	≤ 6 x 10 ⁻⁴

Voltage derating:

A voltage derating factor of 1.35 % 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 leads:

 $10\ N$ in direction of leads 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 FKP 02



Continuation

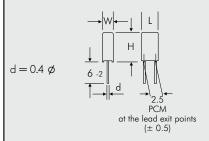
General Data

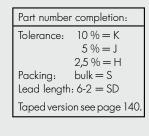
C			6	3 VDC/	40 VAC*	100 VDC/63 VAC*							
Capacitance	\vee	H	L	PCM**	Part number	W	H	L	PCM**	Part number			
100 pF	2.5	7	4.6	2.5	FKP0C001000B00	2.5	7	4.6	2.5	FKP0D001000B00			
150 "	2.5	7	4.6	2.5	FKP0C001500B00	2.5	7	4.6	2.5	FKP0D001500B00			
220 "	2.5	7	4.6	2.5	5 FKP0C002200B00		7	4.6	2.5	FKP0D002200B00			
330 "	2.5	7	4.6	2.5	FKP0C003300B00	2.5	7	4.6	2.5	FKP0D003300B00			
470 "	2.5	7	4.6	2.5	FKP0C004700B00	2.5	7	4.6	2.5	FKP0D004700B00			
680 "	2.5	7	4.6	2.5	FKP0C006800B00	2.5	7	4.6	2.5	FKP0D006800B00			
1000 pF	2.5	7	4.6	2.5	FKP0C011000B00	2.5	7	4.6	2.5	FKP0D011000B00			
1500 "	2.5	7	4.6	2.5	FKP0C011500B00	2.5	7	4.6	2.5	FKP0D011500B00			
2200 "	3	7.5	4.6	2.5	FKP0C012200C00	3	7.5	4.6	2.5	FKP0D012200C00			
3300 "	3.8	8.5	4.6	2.5	FKP0C013300D00	3.8	8.5	4.6	2.5	FKP0D013300D00			
4700 "	4.6	9	4.6	2.5	FKP0C014700E00	4.6	9	4.6	2.5	FKP0D014700E00			
6800 "	4.6	9	4.6	2.5	FKP0C016800E00	4.6	9	4.6	2.5	FKP0D016800E00			
0.01 µ F	5.5	10	4.6	2.5	FKP0C021000F00	5.5	10	4.6	2.5	FKP0D021000F00			

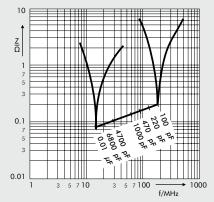
Capacitance	W	l H	25	0 VDC/ IPCM**	160 VAC* Part number	400 VDC/200 VAC* W H L							
	٧ ٧	1.1	L	1 0/1	Tall Hollibel	٧٧	11	L	I CIVI	Tall Hollibel			
100 pF	2.5	7	4.6	2.5	FKP0F001000B00	2.5	7	4.6	2.5	FKP0G001000B00			
150 "	2.5	7	4.6	2.5	FKP0F001500B00	2.5	7	4.6	2.5	FKP0G001500B00			
220 "	2.5	7	4.6	2.5	FKP0F002200B00	2.5	7	4.6	2.5	FKP0G002200B00			
330 "	2.5	7	4.6	2.5	FKP0F003300B00	2.5	7	4.6	2.5	FKP0G003300B00			
470 "	2.5	7	4.6	2.5	FKP0F004700B00	2.5	7	4.6	2.5	FKP0G004700B00			
680 "	2.5	7	4.6	2.5	FKP0F006800B00	3	7.5	4.6	2.5	FKP0G006800C00			
1000 pF	2.5	7	4.6	2.5	FKP0F011000B00	3.8	8.5	4.6	2.5	FKP0G011000D00			
1500 "	3	7.5	4.6	2.5	FKP0F011500C00	4.6	9	4.6	2.5	FKP0G011500E00			
2200 "	3.8	8.5	4.6	2.5	FKP0F012200D00	4.6	9	4.6	2.5	FKP0G012200E00			
3300 "	4.6	9	4.6	2.5	FKP0F013300E00	5.5	10	4.6	2.5	FKP0G013300F00			
4700 "	5.5	10	4.6	2.5	FKP0F014700F00								

^{*} AC voltage: $f \le 400 \text{ Hz}$; $1.4 \times U_{rms} + \text{UDC} \le U_{r}$

Dims. in mm.







Impedance change with frequency (general guide).

Rights reserved to amend design data without prior notification.

The values of the WIMA FKS 02 and WIMA FKM 02 ranges according to the main catalogue 2009 are still available on request.

^{**} PCM = Printed circuit module = lead spacing

Recommendation for Processing and Application of Through-Hole Capacitors



Soldering Process

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

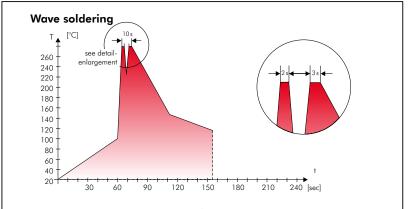
Single wave soldering

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

Double wave soldering

Soldering bath temperature: $T < 260 \,^{\circ}$ C Immersion time: $2 \,^{\circ}$ x t $< 3 \,^{\circ}$ 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 9001:2000 Certification

ISO 9001:2000 is an international basic standard of quality assurance systems for all branches of industry. The approval according to ISO 9001:2000 of our factories by the VDE inspectorate certifies that organisation, equipment and monitoring of quality assurance in our factories correspond to internationally recognized standards.

WIMA WPCS

The WIMA Process Control System WPCSI is a quality surveillance and optimization system developed by WIMA. WPCS is a major part of the quality-oriented WIMA production. Points of application of WPCS during production process:

- incoming material inspection
- metallization
- film inspection
- schoopage
- pre-healing
- lead attachment
- cast resin preparation/ encapsulation
- 100% final inspection
- AQL check

WIMA Environmental Policy

All WIMA capacitors, irrespective of whether through-hole devices or SMD, are made of environmentally friendly materials. Neither during manufacture nor in the product itself any toxic substances are used, e.g.

- LeadPBB/PBDEPCBArsenic
- 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 2002/95/EC certain hazardous substances like e.g. lead, cadmium, mercury must not be used any longer in electronic equipment as of July 1st, 2006. For the sake of the environment WIMA has refraind from using such substances since years already.



Tape for lead-free WIMA capacitors

DIN EN ISO 14001:2005

WIMA's environmental management has been established in accordance with the guidelines of DIN EN ISO 14001:2005. The certification has been granted in June 2006.

Typical Dimensions for Taping Configuration



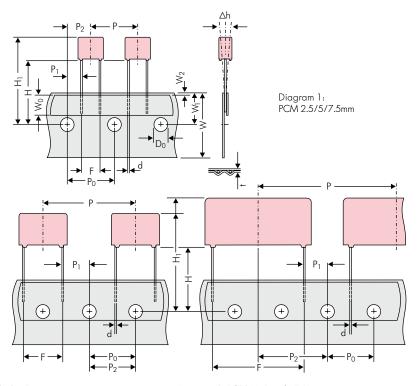


Diagram 2: PCM 10/15 mm

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

,											
Designation	Symbol	PCM 2.5 taping	PCM 5 taping	Dimen PCM 7.5 taping	sions for Radial PCM 10 taping*	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	Po	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 lead	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	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	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			
Lead 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			
Lead diameter	d	0.4 ±0.05	0.5 ±0.05	*0.5 ±0.05 or 0.6 +0.06 -0.05	*0.5 ±0.05 or 0.6 +0,06 -0.05	0.8 +0,08	0.8 +0,08	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	0.7 ±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			
		ROLL/A	AMMO	AMMO							
Package (see also page 141)		REEL Ø 360 max. Ø 30 ±1	$B \begin{array}{c} 52 \pm 2 \\ 58 \pm 2 \end{array} \}$ depending on comp. dimensions		REEL # 360 max. B 58 ±2 or REEL # 500 max. B 60 ±2 or ROM and B 60 ±2 or ROM and B 62 ±2 component dimensions						
Unit				see details page 143.							

Dims in mm.

[•] Diameter of leads 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

Packing Quantities for Bulk Capacitors and TPS*



DOLL		C:		pcs. pe	r packaging ι	ınit bulk	pcs. per packaging unit/TPS*			
PCM		Size		Mini	Standard	Maxi	Mini Standard			
Part number codes	W	Н	L	M	S	G	Х	Υ		
	2.5	7	4.6	1000	5000	10 000	-	-		
2.5 mm	3 3.8	7.5 8.5	4.6 4.6	1000 1000	5000 5000	10 000 10 000	-	-		
2.5 111111	4.6	9	4.6	1000	5000	10 000	_			
	5.5	10	4.6	1000	5000	10 000	-	_		
	2.5	6.5	7.2	2000	5000	10 000	-	-		
	3	7.5	7.2	1000	5000	-	-	-		
	3.5 4.5	8.5 6	7.2 7.2	1000 1000	5000 6000	-	-	-		
	4.5	9.5	7.2	1000	4000		_ _	- -		
	5	10	7.2	1000	3500	-	-	-		
5 mm	5.5	7	7.2	1000	4000	-	-	-		
J 111111	5.5	11.5	7.2	500	2500	-	-	=		
	6.5 7.2	8 8.5	7.2 7.2	1000 500	2500 2500	_	-	-		
	7.2	13	7.2	500	2000	_		_ 		
	8.5	10	7.2	500	2000	_	_	-		
	8.5	14	7.2	500	1500	_	-	=		
	11	16	7.2	250	1000	-	-	-		
	2.5	7	10	1000	5000	-	-	_		
	3 4	8.5 9	10 10	1000 1000	5000 4000	_	_	_		
7.5 mm	4.5	9.5	10.3	1000	3500	_	_	-		
	5	10.5	10.3	1000	3000	-	-	-		
	5.7	12.5	10.3	500	2000	-	-	-		
	7.2	12.5	10.3	500	1500	-	-	-		
	3 4	9	13	1000	3000	-	-	-		
	4	8.5 9	13.5 13	500 1000	3000 3000	_ _	<u> </u>	<u> </u>		
	4	9.5	13	1000	3000	-	-	=		
10 mm	5	10	13.5	500	2000	-	-	=		
	5	11	13	1000	3000	-	-	-		
	6	12 12.5	13 13	800	2400		<u> </u>	=		
	8	12.5	13	800 500	2400 2000	_	_	_		
	5	11	18	800	2400	_	_	_		
	5	13	19	200	1000		-	-		
	6	12.5	18	500	2000	-	-	-		
	6	14	19	250	1000		-	-		
	7	14 15	18 19	400 250	1600 1000	-	-	_		
15 mm	8	15	18	400	1200	_	-	-		
	8	17	19	100	500		-	-		
	9	14	18	400	1200	-	-	-		
	9	16	18	300	900	-	-	-		
	10	18 14	19 18	100 300	500 1000	_ _	_ _	_		
	5	14	26.5	300	1200	_	-	-		
	6	15	26.5	250	1000	-	-	-		
	7	16.5	26.5	190	760	-	-	-		
	8	20	28	-	-	-	115	690		
22.5 mm	8.5 10	18.5 22	26.5 28	-	_	-	220 90	880 540		
	10.5	19	26.5	_	_	_	170	680		
	10.5	20.5	26.5	_	-	_	170	680		
	11	21	26.5	-	-	-	1 <i>7</i> 0	680		
	12	24	28	-	-	-	75	450		
	9	19 21	31.5 31.5	=	-	-	160 136	640 544		
	13	24	31.5	<u> </u>	_	_	112	448		
	13	25	33	-	-	-	56	336		
27.5 mm	15	26	31.5	-	-	-	96	384		
27.5 111111	15	26	33	-	-	-	48	288		
	17	29	31.5	-	-	-	88	176		
	17 20	34.5 32	31.5 33	-	_	_	88 36	176 216		
	20	39.5	31.5	_	_	_	36	144		
	9	19	41.5	-	-	-	60	480		
	11	22	41.5	-	-	-	51	408		
	13	24	41.5	=	=	=	84	252		
37.5 mm	15 17	26 29	41.5 41.5	_	-	-	72 66	144 132		
	17	32	41.5	_ _	_	_ _	54	132		
	20	39.5	41.5	-	-	-	27	108		
	24	45.5	41.5	_	_	_	21	84		

^{71 10}

Moulded versions.

Packing Units for Taped Capacitors with Radial Leads



				ROLL	П		RE	EL		1	AM	AMMO		
PCM		Size				ø3		Ø 5	500	340 >		490 × 370		
				H16.5 H18.	5	ø 360 H16.5 H18.5								
Part number codes	W	Н	L	N O	1	F	I	Н	J	Α	С	В	D	
	2.5	7	4.6	2200	寸	25	00	-		28	2800		_	
2 5	3	7.5	4.6	2000		2300		-		2300		-		
2.5 mm	3.8 4.6	8.5 9	4.6 4.6	1500 1200		1800		-	-		1800 1500		-	
	5.5	10	4.6	900		1500 1200 2500 2300		-	- 1200		-	-		
	2.5	6.5	7.2	2200				-		2800		-	_	
	3	7.5	7.2	2000				-	-	23		-	-	
	3.5 4.5	8.5 6	7.2 7.2	1600 1300		20 15		-	-	20	00 00	-	-	
	4.5	9.5	7.2	1300	- 1	15		_	-		00	-	-	
	5	10	7.2	1100		14	00	-	-	14	00	-	-	
5 mm	5.5	7	7.2	1000		12		-	-		00	-	-	
	5.5 6.5	11.5 8	7.2 7.2	1000 800		12 10		-	-		00 00	-	-	
	7.2	8.5	7.2	700		10		-	-		00	-	-	
	7.2	13	7.2	700			50	-	-		00	-	-	
	8.5 8.5	10 14	7.2 7.2	600 600			00 00	-	-		00	-	-	
	11	16	7.2	500			00	-	- -		00	-	- -	
	2.5	7	10	=	7	25		44	00		00	_	-	
	3	8.5	10	-		22		43		23		41		
7.5 mm	4 4.5	9	10 10.3	-		17		32 29			00	31		
7.5 111111	4.5 5	9.5 10.5	10.3	_		1500 1300		25			00 00	2800		
	5.7	12.5	10.3	-		1000 2200			1100		-			
	7.2	12.5	10.3	-	900		1800		1800		1000		-	
	3	9	13	-		110		22		-	-		00	
	4	8.5 9	13.5 13	_			00 00	16	00	-	-		50 50	
	4	9.5	13	_			00	1600		-		1400		
10 mm	5	10	13.5	-			00		00	-		1200 1200		
	5 6	11 12	13 13	-			00 50		00	_		12 10		
	6	12.5	13	_		550		1100 1100		_		10		
	8	12	13	-		400			00	-			40	
	5	11	18	-			00		00	-	-		50	
	5	13 12.5	19	-			00		00	-	-		00	
	6	12.5	18 19	_			00 00		00 00		-	10	00	
	7	14	18	-			50		00	-	-		50	
15 mm	7	15	19	-			50		00	-	-		50	
15 mm	8	15 17	18 19	-		400 400		800 800		-		740 740		
	9	14	18	-	ı	350		700		-		650		
	9	16	18	-		350		700		-		650		
	10	18 14	19 18	-		300 300		650 600		-		590 540		
	11 5	14	26.5	-	\dashv	3			00				70	
	6	15	26.5	_		_			00		_		40	
	7	16.5	26.5	-		-	-	6	00	-	-	5	50	
00.5	8	20	28	-		-	-		00	-	-		80	
22.5 mm	8.5 10	18.5 22	26.5 28	_		-			80 20		-	450 380		
	10.5	19	26.5	-		-		4	400		-		360	
	10.5	20.5	26.5	-		-	-	400		-			60	
	11 12	21 24	26.5 28	-		-			80 50		- -		50 10	
	9	19	31.5	_	+	_		460/		1	_		20	
27.5 mm	11	21	31.5	_		=		380/		i	- -		50	
27.5 mm	13	24	31.5	-		-		3	00		-		90	
	15	26	31.5	=		-	-	2	70	-		2	50	

^{*} for 2-inch transport pitches.

Samples and pre-production needs 1 packing unit minimum.

Moulded versions.

Rights reserved to amend design data without prior notification.

WIMA Part Number System



A WIMA part number consists of 18 digits and is composed as follows:

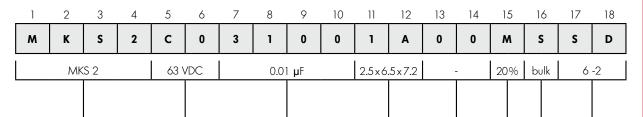
Field 1 - 4: Type description Field 5 - 6: Rated voltage Field 7 - 10: Capacitance Field 11 - 12: Size and PCM

Field 13 - 14: Special features (e.g. Snubber versions)

Field 15: Capacitance tolerance

Field 16: Packing

Field 17 - 18: Lead length (untaped)



Type descript	tion:	Rated voltage:	Capacitance:	Size:
SMD-PET	= SMDT	16 VDC = A0	22 pF = 0022	4.8×3.3×3 Size 1812 = X1
SMD-PEN	= SMDN	2.5 VDC = A1	47 pF = 0047	5.7×5.1×3.5 Size 2220 = Y1
SMD-PPS	= SMDI	4 VDC = A2	100 pF = 3000	7.2×6.1×3 Size 2824 = T1
FKP 02	= FKS0	14 VDC = A3	220 pF = 0220	$2.5 \times 7 \times 4.6 \text{ PCM} 2.5 = 0B$
MKS 02	= MKS0	28 VDC = A4	470 pF = 0470	$3 \times 7.5 \times 4.6 \text{ PCM } 2.5 = 0 \text{ C}$
FKS 2	= FKS2	40 VDC = A5	1000 pF = 1100	$2.5 \times 6.5 \times 7.2 \text{ PCM}5 = 1A$
FKM 2	= FKM2	50 VDC = B0	2200 pF = 1220	$3 \times 7.5 \times 7.2 \text{ PCM}5 = 18$
FKP 2	= FKP2	63 VDC = C0	4700 pF = 1470	$2.5 \times 7 \times 10 \text{ PCM} 7.5 = 2A$
MKS 2	= MKS2	100 VDC = D0	$0.01 \mu F = 2100$	$3 \times 8.5 \times 10 \text{ PCM } 7.5 = 2B$
MKP 2	= MKP2	160 VDC = E0	$0.022 \mu F = 2220$	$3 \times 9 \times 13$ PCM 10 = 3A
MKI 2	=MKI2	250 VDC = F0	$0.047 \mu F = 2470$	$4 \times 9 \times 13 \text{ PCM } 10 = 3B$
FKS 3	= FKS3	400 VDC = G0	$0.1 \mu F = 3100$	$5 \times 11 \times 18 \text{ PCM } 15 = 4A$
FKM 3	= FKM3	630 VDC = J0	$0.22 \mu F = 3220$	$6 \times 12.5 \times 18 \text{ PCM } 15 = 4B$
FKP 3	= FKP3	800 VDC = L0	$0.47 \mu F = 3470$	$5 \times 14 \times 26.5 \text{ PCM } 22.5 = 5A$
MKS 4	= MKS4	850 VDC = M0	$1 \mu F = 4100$	$6 \times 15 \times 26.5 \text{ PCM } 22.5 = 5B$
MKM 4	= MKM4	1000 VDC = O1	$2.2 \mu F = 4220$	$9 \times 19 \times 31.5 \text{ PCM } 27.5 = 6A$
MKP 4	= MKP4	1200 VDC = Q0	$4.7 \mu F = 4470$	$11 \times 21 \times 31.5 \text{ PCM } 27.5 = 6B$
MKP 10	=MKP1	1600 VDC = T0	$10 \mu F = 5100$	$9 \times 19 \times 41.5 \text{ PCM} 37.5 = 7A$
FKP 4	= FKP4	2000 VDC = U0	$22 \mu F = 5220$	$11 \times 22 \times 41.5 \text{ PCM} 37.5 = 7B$
FKP 1	= FKP1	2500 VDC = V0	$47 \mu F = 5470$	$94 \times 49 \times 182 \text{ DCH} = \text{H0}$
MKP-X2	=MKX2	4000 VDC = X0	$100 \mu F = 6100$	$94 \times 77 \times 182 \text{ DCH} = H1$
MKP-X2 R	=MKXR	6000 VDC = Y0	$220 \mu F = 6220$	
MKP-Y2	=MKY2	250 VAC = 0 W	1 F = A010	·
MP 3-X2	=MPX2	275 VAC = 1 W	2.5 F = A025	
MP 3-X1	=MPX1	300 VAC = 2W	50 F = A500	Special features:

100 F

600 F

400 VAC 440 VAC

500 VAC = 5W

=3W

=4W

=MPY2

= MPYR

= SNFP

= SNMP

= GTOM

 $= DCH_{\underline{}}$

=SCSC

= SCMC

= SCSR

Standard = 00Version A1 = 1AVersion A1.1 = 1B

Tolerance: 20% =M10% =K5% =J2.5% =H1% =E

Packing:

AMMO H16.5 $340 \times 340 = A$ AMMO H16.5 $490 \times 370 = B$ AMMO H18.5 $340 \times 340 = C$ AMMO H18.5 $490 \times 370 = D$ REEL H16.5 360 = FREEL H16.5 500 =HREEL H18.5 360 =1REEL H18.5 500 = J**ROLL H16.5** =N**ROLL H18.5** =0BLISTER W12 180 = PBLISTER W12 180 =QBLISTER W12 180 =RBLISTER W12 180 =TBulk Mini =MBulk Standard = SBulk Maxi =GTPS Mini = XTPS Standard =Y

Lead length (untaped)

$$3.5 \pm 0.5 = C9$$

 $6 - 2 = SD$
 $16 - 1 = P4$

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.

= B100

= B600

1200 F = C120

MP 3-Y2

MP 3R-Y2

GTO MKP

Snubber FKP

Snubber MKP

DC-LINK HC

SuperCap C

SuperCap R

SuperCap MC

DC-LINK MKP 4 = DCP4

DC-LINK MKP C = DCPC