# **WIMA MP 3-Y2 / 3R-Y2**



Metallized Paper (MP) RFI-Capacitors Class Y2 in PCM 10 mm to 27.5 mm. Capacitances from 1000 pF to 0.1  $\mu$ F. Rated Voltages 250 VAC and 300 VAC.

## **Special Features**

- Particularly high reliability against active and passive flammability
- Excellent self-healing as well as high voltage strength
- Twice the safety by internal series connection (300 VAC)
- High degree of interference suppression due to good attenuation and low ESR
- For temperatures up to +110°C
- According to RoHS 2011/65/EU

# **Typical Applications**

Class Y2 RFI applications to meet EMC regulations

- Capacitors connected to the mains between phase or neutral and earthed casing
- By-passing of the basic or supplementary insulation, pulse peak voltage ≤ 5 kV

# Construction

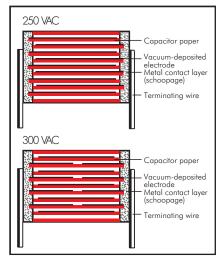
### **Dielectric:**

Paper, epoxy resin impregnated

# Capacitor electrodes:

Vacuum-deposited

### Internal construction:



# **Encapsulation:**

Self-extinguishing epoxy resin, UL 94 V-0. metal foil

# **Terminations:**

Tinned wire.

### Marking:

Marking: Black on Silver.

### **Electrical Data**

### Capacitance range:

1000 pF to 0.1  $\mu$ F (E12-values on request)

### Rated voltages:

250 VAC, 300 VAC

Continuous DC voltage\* (general guide):

250 VAC: ≤ 1000 V 300 VAC: ≤ 1250 V

Capacitance tolerances: ±20% Operating temperature range:

-40° C to +110° C

### Climatic test category:

250 VAC: 40/110/56/C 300 VAC: 40/110/56/B

in accordance with IEC

Insulation resistance at +20° C:

 $\geq 12 \times 10^3 M\Omega$ 

Measuring voltage: 100 V/1 min.

# Dissipation factors:

 $\tan \delta \le 13 \times 10^{-3}$  at 1 kHz and +20° C

# **Test specifications:**

in accordance with IEC 60384-14

# Approvals:

**Authority** 

UL/Demko

UL	OL 60384-14 CAN/CSA-E60384-14	caus	
Mechanical	Tests	Packing	
Pull test on pir	s: 10 N in direction of pins	Available tan	ed

Specification

EN 60384-14

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<sup>2</sup> in

accordance with IEC 60068-2-29

\* If safety-approved EMI suppression capacitors are operated with a DC voltage being above the specified AC voltage rating the given approvals are no longer

Furthermore the permissible pulse rise time du/dt ( $F_{max}$ .) will be subject to a reduction according to

 $F_{\text{max.}} = F_r \times \sqrt{2} \times \text{UAC/UDC}$ 

valid (IEC 60384-14).

if the DC operating voltage UDC is higher than  $\sqrt{2}\,x$  UAC

### Maximum pulse rise time 250 VAC:

Capacitance pF/ <b>µ</b> F	Pulse rise time V/µsec max. operation					
1000 4700	2500					
6800 0.022	1750					

# Maximum pulse rise time 300 VAC:

Capacitance pF/ <b>µ</b> F	Pulse rise time V/µsec max. operation					
1000 4700	2500					
6800 0.015	1850					
0.022 0.1	600					

for pulses equal to a voltage amplitude with  $\sqrt{2}$  x 250 VAC = 355 V

with  $\sqrt{2} \times 300 \text{ VAC} = 425 \text{ V}$ according to IEC 60384-14

Test voltage: 2400 VDC, 2sec.

Reliability:

Symbol

Operational life  $> 300\,000$  hours Failure rate < 1 fit (0.5 x  $U_r$  and 40° C)

Approval-No.

ENEC-02833 (250 VAC) ENEC-02399 (300 VAC)

E 100438

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 MP 3-Y2 / 3R-Y2**



# Continuation

## **General Data**

C				250 \	VAC*				300 \	VAC*
Capacitance	W	Н	L	PCM**	Part number	W	Н	L	PCM**	Part number
1000 pF	4	8.5	13.5	10	MPY20W1100FA00	5	13	19	15	MPRY2W1100FC00
1500 "	4	8.5	13.5	10	MPY20W1150FA00	5	13	19	15	MPRY2W1150FC00
2200 "	4	8.5	13.5	10	MPY20W1220FA00	5	13	19	15	MPRY2W1220FC00
3300 "	4	8.5	13.5	10	MPY20W1330FA00	5	13	19	15	MPRY2W1330FC00
4700 "	5	10	13.5	10	MPY20W1470FB00	6	14	19	15	MPRY2W1470FD00
6800 "	5	13	19	15	MPY20W1680FC00		15	19	15	MPRY2W1680FE00
0.01 µF	5	13	19	15	MPY20W2100FC00	8	17	19	15	MPRY2W2100FF00
0.015 "	6	14	19	15	MPY20W2150FD00	10	18	19	15	MPRY2W2150FG00
0.022 "	7	15	19	15	MPY20W2220FE00	8	20	28	22.5	MPRY2W2220FH00
0.033 "						8	20	28	22.5	MPRY2W2330FH00
0.047 "							22	28	22.5	MPRY2W2470FI00
0.068 "						12	24	28	22.5	MPRY2W2680FJ00
0.1 µF						13	25	33	27.5	MPRY2W3100FK00

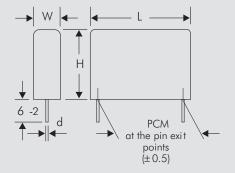
<sup>\*</sup> f = 50/60 Hz

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

Upon request with long pins 35-2 mm max.

Dims. in mm.

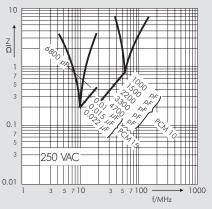
 $d = 0.6 \, \text{Ø} \text{ if PCM } 10$  $d = 0.8 \, \text{Ø} \text{ if PCM} \ge 15$ 



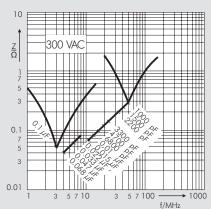
Part number completion:

Tolerance: 20 % = MPacking: bulk = S Pin length: 6-2 = SD

Taped version see page 149.



Impedance change with frequency (general guide)



Impedance change with frequency (general guide)

Rights reserved to amend design data without prior notification.

# 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<sub>max.</sub> ≤ 135° C

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

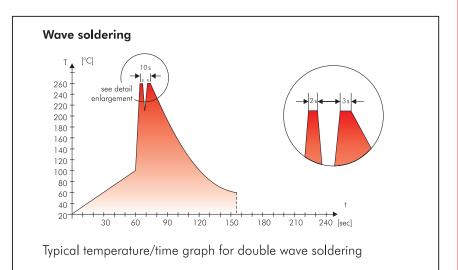
# Single wave soldering

Soldering bath temperature: T < 260 ° C Dwell time: t < 5 sec

### Double wave soldering

Soldering bath temperature: T < 260 ° C Dwell time:  $\Sigma t < 5$  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 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 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.

LeadPBB/PBDEPCBArsenic

CFC
 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:

- 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**



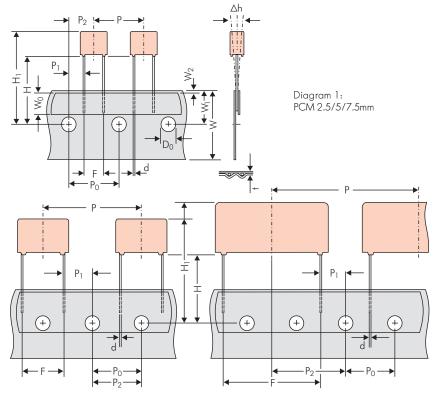


Diagram 2: PCM 10/15 mm

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	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	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 <sub>0</sub>	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	12.7 ±0.3 cumulative pitch error max.	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	cumulative 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		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 <sub>1</sub>	$H+H_{component} < H_1$ 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 +0.06 -0.05	*0.5 ±0.05 or 0.6 <sup>+0,06</sup> <sub>-0.05</sub>	0.8 +0,08 -0.05	0.8 +0,08 -0.05	0.8 +0.08 -0.05					
Component alignment	Δh	± 2.0 max.	± 2.0 max.	± 3.0 max.	$\pm$ 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					
6 -		ROLL//	AMMO	AMMO									
Package (see also page 150)		REEL Ø 360 max. Ø 30 ±1	$\left. \begin{array}{c} 8.52 \pm 2 \\ 58 \pm 2 \end{array} \right\}   \begin{array}{c} \text{depending on} \\ \text{comp. dimensions} \end{array}$		REEL \$\psi \ 360 \text{ max.}  \text{B} \ \frac{52 \pm 2}{58 \pm 2}  \text{66 \pm 2}		±2 depending ±2 on PCM and ±2 component dimensions						
Unit					see details page 151.								

Dims in mm.

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.

<sup>•</sup> Diameter of pins see General Data.

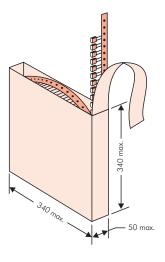
# Types of Tape Packaging of Capacitors for Automatic Radial Insertion

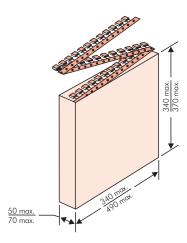


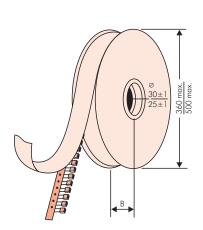
# ■ ROLL Packaging

# AMMO Packaging

# **■ REEL Packaging**







# BAR CODE (Labelling)

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

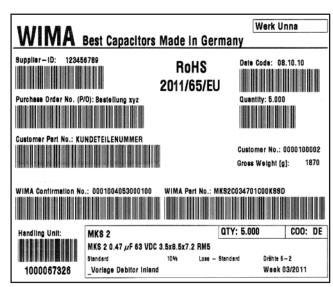
Scanner decoding of

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

In addition part description of

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

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



BARCODE "Code 39"

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



					pcs. per packing unit											
		Si	ze			RC	LL		RE	EEL AMMO						
PCM		01.	20		bulk	   ⊔165	Ι μ 1 Ω 5	Ø 30 H16.5		Ø 5 □ □ 1 6 5 <b>1</b>		340 ×		490 ×		
	W	Н	L	Codes	S	<b>N</b>	<b>O</b>	<b>F</b>	<b>I</b>	H	J	<b>A</b>	C	<b>B</b>	<b>D</b>	
	2.5	7	4.6	0B	5000	22		250		-	-	280		_	-	
2.5 mm	3	7.5	4.6	0C	5000	2000		2300 1800		-		2300		-		
2.5 mm	3.8 4.6	8.5 9	4.6 4.6	OD OE	5000 5000	1500 1200				_	-	1800		_		
	5.5	10	4.6	0F	5000	900		1500 1200		_	-	1500 1200		_	_	
	2.5	6.5	7.2	1A	5000	22		250	00	-	-	280		-	_	
	3	7.5	7.2	1B	5000	20		230		-	-	230		-	-	
	3.5	8.5	7.2	1C	5000	16		200		-	-	200		-	-	
	4.5 4.5	6 9.5	7.2 7.2	1D 1E	6000 4000	13 13		150 150		_	-	150 150				
	5	10	7.2	1F	3500	110		140		_	_	140		_		
5 mm	5.5	7	7.2	1G	4000		00	120	00	-	-	120		-	-	
5 111111	5.5	11.5	7.2	1H	2500		00	120		-		120		-		
	6.5 7.2	8 8.5	7.2 7.2	11 1J	2500 2500		00	100		_	-	100		_		
	7.2	13	7.2	1K	2000		00	95		_	-	100		_	_	
	8.5	10	7.2	1L	2000		00	80	00	-	-		00	-	-	
	8.5	14	7.2	1M	1500		00	80		-	-		00	-		
	2.5	16 7	7.2 10	1N 2A	1000 5000	)	00			4.4			40		-	
	3	8.5	10	2B	5000	_	-	250 220		44 43		250 230		41:		
	4	9	10	2C	4000	-	-	170		32		170		310		
7.5 mm	4.5	9.5	10.3	2D	3500	-	-	150		29		140		27	00	
	5 5.7	10.5	10.3	2E 2F	3000	-	-	130		25		130		-	-	
	7.2	12.5 12.5	10.3 10.3	2F 2G	2000 1500	_	-	100	)()		2200 1800		1100 1000		-	
	3	9	13	3A	3000	-	-	110	00	22		_		190		
	4	8.5	13.5	FA	3000	-		90		16		-		1450		
	4	9 9.5	13 13	3C 3D	3000 3000	-	_		00	16 16		_		1450 1400		
10 mm	5	10	13.5	FB	2000	-	_		00	13		_		12		
	5	11	13	3F	3000	-	-		700		1300		-		1200	
	6	12	13	3G	2400	-		550		1100		-		1000		
	6 8	12.5 12	13 13	3H 3I	2400 2000	-		550 400		1100 800		_		1000 740		
	5	11	18	4B	2400	<u> </u>		60		12		_		113		
	5	13	19	FC	1000	-	-	60	00	12		_		120		
	6	12.5	18	4C	2000	-	-	50		10		-		100		
	6 7	14 14	19 18	FD 4D	1000 1600	-		50 45		10	00 00	_		10	00 50	
	7	15	19	FE	1000	-	- -	45			00	_			50	
15 mm	8	15	18	4F	1200	-	-	40	00	8	00	_			40	
	8	17	19	FF	500	-	-	40			00	-			40	
	9	14 16	18 18	4H 4J	1200 900	-	-	35 35			00	-			50 50	
	10	18	19	FG	500	-	-	30			50	_			90	
	11	14	18	4M	1000	-	-	30			00	-			40	
	5	14	26.5	5A	1200	-	-	-			00	_			70	
	6	15	26.5	5B	1000	-	-	-			00	-			40	
	7 8	16.5 20	26.5 28	5D FH	760 500		-	_			00	-			50 80	
22.5 mm	8.5	18.5	26.5	5F	500	-	-	_			500 480		-		50	
22.5 IIIII	10	22	28	FI	570*	-	-	_		4	20	-			80	
	10.5	19	26.5	5G	594* 504*	-	-	_			00	-			60	
	10.5 11	20.5 21	26.5 26.5	5H 5I	594* 561*			_			00 80	_			60 50	
	12	24	28	FJ	480*	-	-	-			50	-			10	

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

Rights reserved to amend design data without prior notification.

Moulded versions.

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



				рс	s. per p	acking u	ınit									
		Si				RC	LL		RE	EL			AM	MO		
PCM		51	ze		bulk			ø3	360	Ø 500		340 × 340		490 × 370		
						H16.5	H18.5	H16.5	H16.5 H18.5		H16.5 H18.5		H16.5 H18.5		H16.5 H18.5	
	W	Н	L	Codes	S	N	0	F	Ι	Н	J	Α	С	В	D	
	9	19	31.5	6A	567*	-	-	-	_	460/	340*	_		420		
	11	21	31.5	6B	459*	-	-	-	-	380/		-	-		350	
	13	24	31.5	6D	378*	-	-	-	-	3	00	-	-	2	90	
	13	25	33	FK	405*	-	-	-	-	-	-	-	-		-	
27.5 mm	15	26	31.5	6F	324*	-	-	-	-	2	70	-	-	2	50	
_,,,,	15	26	33	FL	324*	-			-	-	-		-	-	-	
	17 17	29 34.5	31.5 31.5	6G 6I	198* 198*	-			-	-	-	-	-	-		
	20	32	33	FM	162*				- -	_	-		_	-		
	20	39.5	31.5	6J	162*	-		_		_		_		_		
	9	19	41.5	7A	441*	-		_		-		_		_		
	11	22	41.5	7B	357*	_		-	-	-	-	-	-		_	
	13	24	41.5	7C	294*	-		-	-	-	-	-	-	-	-	
	15	26	41.5	7D	252*	-	-	-	-	-	-	-		-		
37.5 mm	17 19	29 32	41.5 41.5	7E 7F	154* 140*	-	-	_		_		_		_		
37.5 mm	20	39.5	41.5	7F 7G	126*	_		_		_		_		_		
	24	45.5	41.5	7H	112*		_		_	_	_		_			
	31	46	41.5	71	84*	_	-	_		_		_		_		
	35	50	41.5	7J	35*	-	-	-	_	-	-	-	_	-	-	
	40	55	41.5	7K	28*	-	-	-	-	_	-	-		-	-	
	19	31	56	8D	120*	-	-	-	-	-	-	-	-	-	-	
48.5 mm	23	34	56	8E	80*	-	-	-	-	-	-	-	-	-	-	
40.5 mm	27	37.5 48	56 56	8H	84*	-	-	-	-	-	-	-	-	-	-	
	33 37	54	56	8F	25* 25*	_	-		-	_		-		_		
	25	45	57	9D	70*	_			_		_		_		_	
50.5	30	45	57	9E	60*											
52.5 mm	35	50	57	9F	25*											
	45	55	57	9H	20*	-	-	-	-	-	-	-	-	-	-	
	45	65	57	9J	20*	-	-				-			-	_	

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

Updated data on www.wima.com

<sup>\*</sup> for 2-inch transport pitches.
\* TPS (Tray-Packing-System). Plate versions may have different packing units. 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

Packing Field 16:

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	С	0	2	1	0	0	1	Α	0	0	М	S	S	D
	MK	S 2		63 \	/DC		0.0	lμF		2.5×6.	.5×7.2		-	20%	bulk	6	-2

		<b>.</b>		l	l
Type description:		Rated voltage:	Capacitance:	Size:	Tolerance:
	SMDT	50  VDC = B0	22  pF = 0022	$4.8 \times 3.3 \times 3$ Size $1812 = KA$	$\pm 20\% = M$
	SMDN	63  VDC = C0	47  pF = 0047	4.8 x 3.3 x 4 Size 1812 = KB	$\pm 10\% = K$
	SMDI	100  VDC = D0	100  pF = 0100	$5.7 \times 5.1 \times 3.5$ Size $2220 = QA$	$\pm 5\%$ = J
	FKP0	250  VDC = FO	150  pF = 0150	$5.7 \times 5.1 \times 4.5$ Size $2220 = QB$	$\pm 2.5\% = H$
		400  VDC = G0	220  pF = 0220	$7.2 \times 6.1 \times 3$ Size 2824 = TA	$\pm 1\% = E$
	FKS2	450  VDC = H0	330  pF = 0330	7.2 x 6.1 x 5 Size 2824 = TB	
1	FKP2	520  VDC = H2	470  pF = 0470	$10.2 \times 7.6 \times 5$ Size $4030 = VA$	
FKS 3 =	FKS3	600  VDC = 10	680  pF = 0680	12.7x 10.2x6 Size 5040 = XA	
FKP 3 =	FKP 3	630  VDC = J0	1000  pF = 1100	$15.3 \times 13.7 \times 7$ Size $6054 = YA$	Packing:
MKS 2 =	MKS2	700  VDC = KO	1500  pF = 1150	$2.5 \times 7 \times 4.6 \text{ PCM } 2.5 = 0B$	AMMO H16.5 $340 \times 340 = A$
MKP 2 =	MKP2	800  VDC = 10	2200  pF = 1220	$3 \times 7.5 \times 4.6 \text{ PCM } 2.5 = 0 \text{C}$	AMMO H16.5 $490 \times 370 = B$
MKS 4 =	MKS4	850  VDC = M0	3300  pF = 1330	$2.5 \times 6.5 \times 7.2 \text{ PCM}5 = 1A$	AMMO H18.5 $340 \times 340 = C$
MKP 4C =	MKPC	900  VDC = N0	4700  pF = 1470	$3 \times 7.5 \times 7.2 \text{ PCM} 5 = 1B$	AMMO H18.5 $490 \times 370 = D$
MKP 4 =	MKP4	1000  VDC = O1	6800  pF = 1680	$2.5 \times 7 \times 10 \text{ PCM } 7.5 = 2A$	REEL H16.5 360 = F
MKP 10 =	MKP1	1100  VDC = P0	$0.01  \mu F = 2100$	$3 \times 8.5 \times 10 \text{ PCM } 7.5 = 2B$	REEL H16.5 500 = H
FKP 1 =	FKP1	1200  VDC = Q0	$0.022  \mu F = 2220$	$3 \times 9 \times 13 \text{ PCM } 10 = 3A$	REEL H18.5 360 =
MKP-X2 =	MKX2	1250  VDC = R0	$0.047  \mu F = 2470$	$4 \times 9 \times 13 \text{ PCM } 10 = 3C$	REEL H18.5 500 = J
MKP-X1R =	MKX1	1500  VDC = S0	$0.1  \mu F = 3100$	$5 \times 11 \times 18 \text{ PCM } 15 = 4B$	ROLL H16.5 = N
	MKY2	1600  VDC = T0	$0.22  \mu F = 3220$	$6 \times 12.5 \times 18 \text{ PCM } 15 = 4 \text{ C}$	ROLL H18.5 = O
MP 3-X2 $=$	MPX2	2000  VDC = U0	$0.47  \mu F = 3470$	$5 \times 14 \times 26.5 \text{ PCM } 22.5 = 5A$	BLISTER W12 180 $= P$
MP 3-X1 =	MPX1	2500  VDC = V0	$1 \mu F = 4100$	$6 \times 15 \times 26.5 \text{ PCM } 22.5 = 5B$	BLISTER W12 330 $= Q$
MP $3-Y2 =$	MPY2	3000  VDC = W0	$2.2  \mu F = 4220$	$9 \times 19 \times 31.5 \text{ PCM } 27.5 = 6A$	BLISTER W16 330 $= R$
MP 3R-Y2 =	MPRY	4000  VDC = X0	$4.7  \mu F = 4470$	$11 \times 21 \times 31.5 \text{ PCM } 27.5 = 6B$	BLISTER W24 330 $=$ T
MKP 4F =	MKPF	6000 VDC = Y0	$10  \mu F = 5100$	$9 \times 19 \times 41.5 \text{ PCM} 37.5 = 7A$	Bulk/TPS Standard = S
Snubber MKP =		250  VAC = 0W	$22  \mu F = 5220$	$11 \times 22 \times 41.5 \text{ PCM} 37.5 = 7B$	
Snubber FKP =		275  VAC = 1 W	$47  \mu F = 5470$	$19 \times 31 \times 56$ PCM $48.5 = 8D$	
		300  VAC = 2W	$100  \mu F = 6100$	$25 \times 45 \times 57$ PCM $52.5 = 9D$	
DC-LINK MKP 3 =		305  VAC = AVV	$220  \mu F = 6220$	l	
DC-LINK MKP 4 =		350  VAC = BW	$1000  \mu F = 7100$		
DC-LINKMKP4S =		440  VAC = 4VV	$1500  \mu F = 7150$	Vancian and a	Discharged (see to see al)
DC-LINK MKP 5 =		500  VAC = 5W		Version code:	Pin length (untaped)
DC-LINK MKP 6 =				Standard = 00	$3.5 \pm 0.5 = C9$
	DCHC			Version A1 $= 1A$	6-2 = SD
DC-LINK HY =	DCHY			Version A1.1.1 = 1B	$16 \pm 1 = P1$

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.

Version A1.1.1 = 1BVersion A2 = 2A

Pin length (taped)