

# WIMA MKP 3

PCM

7.5

## Metallized polypropylene capacitors in PCM 7.5 mm

- Extremely low dissipation factor ( $\tan \delta$ )
- Constantly negative  $TK_C$ .
- Suitable for "sample and hold" circuits because of low dielectric absorption.
- Suitable for applications in high frequencies.
- Available taped and reeled.

### Technical Data

**Dielectric:** Polypropylene film.

**Capacitor electrodes:** Vacuum-deposited aluminium.

**Encapsulation:** Flame-retardent plastic case, UL 94 V-0, with epoxy resin seal. Colour: Red. Marking: Black.

**Temperature range:**  $-55^\circ\text{C}$  to  $+100^\circ\text{C}$ .

**Test specifications:** In accordance with IEC 60384-16 and EN 131200 (u.prep.).

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

$\geq 1 \times 10^5$  megohms (mean value:  $5 \times 10^5$  megohms)

In accordance with IEC 60384-16 and EN 131200 (u.prep.).

Measuring voltage: 100 V/1 min.

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

at f	$C \leq 0.1 \mu\text{F}$	$C > 0.1 \mu\text{F}$
1 kHz	$\leq 0.4 \times 10^{-3}$	$\leq 0.5 \times 10^{-3}$
10 kHz	$\leq 0.6 \times 10^{-3}$	$\leq 0.8 \times 10^{-3}$
100 kHz	$\leq 2.5 \times 10^{-3}$	—

**Capacitance tolerances:**  $\pm 20\%$ ,  $\pm 10\%$ ,  $\pm 5\%$ .

**Temperature characteristics:** See graph page 6.

### Maximum pulse rise time:

Capacitance pF / $\mu\text{F}$	Pulse rise time V/ $\mu\text{sec}$ max. operation/test			
	250 VDC	400 VDC	630 VDC	1000 VDC
1000 ... 6800	—	55/550	60/600	65/650
0.01 ... 0.022	45/450	45/450	50/500	55/550
0.033 ... 0.068	25/250	30/300	35/350	40/400
0.1 ... 0.15	15/150	17/170	20/200	22/220

for pulses equal to the rated voltage.

**Test voltage:**  $1.6 U_r$ , 2 sec.

**Vibration:** 6 hours at 10 ... 2000 Hz and 0.75 mm displacement amplitude or 10 g in accordance with IEC 60068-2-6.

**Low air density:** 1 kPa = 10 mbar in accordance with IEC 60068-2-13.

**Bump test:** 4000 bumps at  $390 \text{ m/sec}^2$  in accordance with IEC 60068-2-29.

**Dielectric absorption:** 0.05 %

**Voltage derating:** A voltage derating factor of 1.35 % per K must be applied from  $+85^\circ\text{C}$  for DC voltages and from  $+75^\circ\text{C}$  for AC voltages

Graphs see page 6.

### General Data

Capacitance	250 VDC / 160 VAC*				400 VDC / 220 VAC*				630 VDC / 280 VAC*				1000 VDC / 400 VAC*			
	W	H	L	PCM	W	H	L	PCM	W	H	L	PCM	W	H	L	PCM
1000 pF									2.5	7	10	<b>7.5</b>	2.5	7	10	<b>7.5</b>
1500 "									2.5	7	10	<b>7.5</b>	2.5	7	10	<b>7.5</b>
2200 "									2.5	7	10	<b>7.5</b>	3	8.5	10	<b>7.5</b>
3300 "					2.5	7	10	<b>7.5</b>	3	8.5	10	<b>7.5</b>	4	9	10	<b>7.5</b>
4700 "					2.5	7	10	<b>7.5</b>	3	8.5	10	<b>7.5</b>	4.5	9.5	10.3	<b>7.5</b>
6800 "					2.5	7	10	<b>7.5</b>	3	8.5	10	<b>7.5</b>	5	10.5	10.3	<b>7.5</b>
0.01 $\mu\text{F}$					2.5	7	10	<b>7.5</b>	3	8.5	10	<b>7.5</b>	5.7	12.5	10.3	<b>7.5</b>
0.015 "	2.5	7	10	<b>7.5</b>	3	8.5	10	<b>7.5</b>	4	9	10	<b>7.5</b>				
0.022 "	2.5	7	10	<b>7.5</b>	4	9	10	<b>7.5</b>	4.5	9.5	10.3	<b>7.5</b>				
0.033 "	3	8.5	10	<b>7.5</b>	4.5	9.5	10.3	<b>7.5</b>	5	10.5	10.3	<b>7.5</b>				
0.047 "	4	9	10	<b>7.5</b>	5	10.5	10.3	<b>7.5</b>	5.7	12.5	10.3	<b>7.5</b>				
0.068 "	4	9	10	<b>7.5</b>	5.7	12.5	10.3	<b>7.5</b>								
0.1 $\mu\text{F}$	4.5	9.5	10.3	<b>7.5</b>												
0.15 "	5	10.5	10.3	<b>7.5</b>												

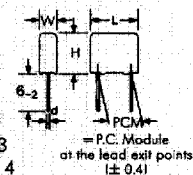
\* AC voltage:  $f \leq 400 \text{ Hz}$ ;  $1.4 \cdot X U_{\text{rms}} + U_{\text{DC}} \leq U_r$

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

Dims in mm.

Taped version see page 92.

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$d = 0.5 \phi$  if  $W < 3$   
 $d = 0.7 \phi$  of  $W \geq 4$