

# WIMA MKC 2



## Metallized polycarbonate capacitors in PCM 5 mm

- Polycarbonate dielectric for PCM 5 mm applications.
- Constant capacitance value with temperature.
- Ideally suited for applications with wide temperature range, e.g. automotive (under the hood).
- Produced in conformance with CECC 30 500.
- Available taped and reeled.

### Technical Data

**Dielectric:** Polycarbonate film.  
**Capacitor electrodes:** Vacuum-deposited aluminium.  
**Encapsulation:** Flame-retardent plastic case, UL 94 V-O, with epoxy resin seal. Colour: Red. Marking: Black.  
**Temperature range:** - 55° C to + 100° C.  
**Test specifications:** In accordance with IEC 384-6 and CECC 30 500.  
**Test category:** 55/100/21 in accordance with IEC.  
**Insulation resistance** at + 20° C:

$V_r$	$V_{test}$	$C \leq 0.33 \mu F$	$C = 0.47 \mu F$
63 VDC	50 V	$\geq 3.75 \times 10^3 M\Omega$ Mean value: $5 \times 10^4 M\Omega$	$\geq 1250 \text{ sec} (M\Omega \times \mu F)$ Mean value: 3000 sec
100 VDC	100 V	$\geq 3.75 \times 10^3 M\Omega$ Mean value: $5 \times 10^4 M\Omega$	-

In accordance with IEC 384-6 and CECC 30 500.  
 Measuring time: 1 min.

**Dissipation factors** at + 20° C:  
 $\tan \delta \leq 3 \times 10^{-3}$  at 1 kHz  
 $\tan \delta \leq 5 \times 10^{-3}$  at 10 kHz  
 $\tan \delta \leq 10 \times 10^{-3}$  at 100 kHz

**Capacitance tolerances:**  $\pm 20\%$ ,  $\pm 10\%$ ,  $\pm 5\%$ .  
**Temperature characteristics:** See page 5.  
**Maximum pulse rise time:**

Capacitance $\mu F$	Pulse rise time V/ $\mu\text{sec}$	
	max. operation	test
0.01 ... 0.022	35	350
0.033 ... 0.068	20	200
0.1 ... 0.47	15	150

for pulses equal to the rated voltage.  
**Test voltage:** 1.6  $V_r$ , 2 sec.  
**Vibration:** 6 hours at 10 ... 2000 Hz and 0.75 mm displacement amplitude or 10 g in accordance with IEC 68-2-6.  
**Low air density:** 1 kPa = 10 mbar in accordance with IEC 68-2-13.  
**Bump test:** 4000 bumps at 390 m/sec<sup>2</sup> in accordance with IEC 68-2-29.  
**Voltage derating:** A voltage derating factor of 1% per K must be applied from + 85° C for DC voltages and from + 75° C for AC voltages.

Graphs see page 5.

### General Data

Capacitance	63 VDC / 40 VAC*				100 VDC / 63 VAC*			
	W	H	L	PCM**	W	H	L	PCM**
0.01 $\mu F$					2.5	6.5	7.2	5
0.015 "					2.5	6.5	7.2	5
0.022 "					2.5	6.5	7.2	5
0.033 "	2.5	6.5	7.2	5	2.5	6.5	7.2	5
0.047 "	2.5	6.5	7.2	5	2.5	6.5	7.2	5
0.068 "	3	7.5	7.2	5	3	7.5	7.2	5
0.1 $\mu F$	3.5	8.5	7.2	5	3.5	8.5	7.2	5
0.15 "	4.5	9.5	7.2	5	4.5	9.5	7.2	5
0.22 "	5	10	7.2	5	5	10	7.2	5
0.33 "	7.2	13	7.2	5	7.2	13	7.2	5
0.47 "	7.2	13	7.2	5	7.2	13	7.2	5

\* AC voltage:  $f \leq 400 \text{ Hz}$ ;  
 $1.4 \times V_{rms} + VDC \leq VDC \text{ (rated)}$

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

Dims. in mm.

Taped version see page 71.

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