

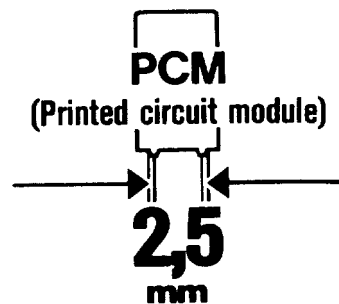
# WIMA MKS 02



## Sub-miniature capacitors PCM 2.5 mm

### Metallized polyester capacitors

149-102 → 149-116



- CECC approval  
Certificate No. 30 401-049
- Ideally suited for decoupling up to  
high-frequency ranges
- Available taped and reeled



### Technical Data

**Dielectric:** Polyethylene terephthalate film  
**Capacitor electrodes:** Vacuum-deposited aluminium  
**Encapsulation:** Flame-retardent plastic case (material code KR 4015 WU/UL 94 V-0) with epoxy resin seal Colour Red  
**Class of application:** FME in accordance with DIN 40040  
**Temperature range:** -55°C to +100°C  
**Test specifications:** In accordance with CECC 30400 and IEC 384-2  
**Test category:** 55/100/21 in accordance with IEC  
**Insulation resistance at +20°C:**  
 Capacitance  $\leq 0.33 \mu\text{F}$   $\geq 3.75 \times 10^3$  megohms  
 Capacitance  $> 0.33 \mu\text{F}$   $\geq 1250$  sec (megohms X  $\mu\text{F}$ ) in accordance with CECC 30400 and IEC 384-2  
 Measuring voltage 10 V/1 min  
**Capacitance tolerance:**  $\pm 20\%$ , closer tolerances on request  
**Temperature characteristics:** See graph page 5  
**Dissipation factors at +20°C:**

at f	$C \leq 0.1 \mu\text{F}$	$0.1 \mu\text{F} < C \leq 0.47 \mu\text{F}$
1 kHz	$\leq 8 \times 10^{-3}$	$\leq 8 \times 10^{-3}$
10 kHz	$\leq 20 \times 10^{-3}$	$\leq 25 \times 10^{-3}$
100 kHz	$\leq 30 \times 10^{-3}$	-

**Maximum pulse rise time:**  
 50 VDC 5 V/microsecond  
 63 VDC 7.5 V/microsecond  
 for pulses equal to the rated voltage

**Test voltage:** 1.6 Vr, 2 sec

**Pulse test:** Based on DIN specifications

**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 1.25% per degree C must be applied from +85°C for DC voltages and from +75°C for AC voltages

Graphs page 5

Impedance behavior as for WIMA MKS 022, page 11

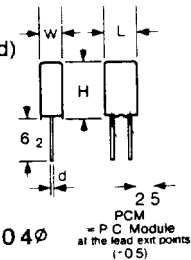
### General Data

Capacitance	50 VDC/30 VAC*				63 VDC/40 VAC**			
	W	H	L	PCM**	W	H	L	PCM**
1000 pF					2.5	7	4.6	2.5
1500 "					2.5	7	4.6	2.5
2200 "					2.5	7	4.6	2.5
3300 "					2.5	7	4.6	2.5
4700 "					2.5	7	4.6	2.5
6800 "					2.5	7	4.6	2.5
0.01 $\mu\text{F}$					2.5	7	4.6	2.5
0.015 "					2.5	7	4.6	2.5
0.022 "					2.5	7	4.6	2.5
0.033 "					2.5	7	4.6	2.5
0.047 "					2.5	7	4.6	2.5
0.068 "					3	7.5	4.6	2.5
0.01 $\mu\text{F}$					3	7.5	4.6	2.5
0.15 "	3	7.5	4.6	2.5*				
0.22 "	3	7.5	4.6	2.5*				
0.33 "	3.8	9	4.6	2.5*				
0.47 "	4.6	9.5	4.6	2.5*				

\* AC voltage  $f = 50 \text{ Hz}$ ,  
 $14 \times V_{\text{rms}} + V_{\text{DC}} \leq V_{\text{DC}} (\text{rated})$

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

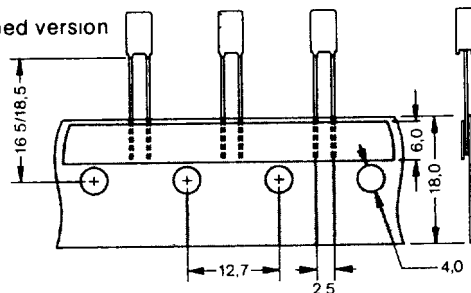
\* CECC mark certification under preparation



Dims in mm

$d = 0.4 \phi$

Taped version



For further details see page 6

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