143-674 TO 684

WIMA MKS 2

Miniature type capacitors

Metallized polyester capacitors

PCM
(Printed circuit module)

5 mm

- **CECC approval**
  Certificate No. 30 401-046
- **Ideally suited for decoupling**
- **Available taped and reeled**

Technical Data

Dielectric: Polyethylene terephthalate film
Capacitor electrodes: Vacuum-deposited aluminium
Encapsulation: Flame-retardent plastic case, UL 94 V-O, with epoxy resin seal Colour Red.
Class of application: FME in accordance with DIN 40 040
Temperature range: −55° C to +100° C
Test specifications: In accordance with CECC 30 400 and IEC 384-2.
Test category: 55/100/21 in accordance with IEC
Insulation resistance at +20° C

V_r	V_{test}	C ⩽ 0.33 µF	0.33 µF < C ⩽ 4.7 µF
50 VDC	10 V	⩾ 5 × 10^3 MΩ Mean value 3×10^4 MΩ	⩾ 1000 sec (MΩ × µF) Mean value 3 000 sec
63 VDC	50 V	⩾ 1 × 10^4 MΩ Mean value 5×10^4 MΩ	⩾ 3000 sec (MΩ × µF) Mean value 6 000 sec
100 VDC	100 V	⩾ 1.5 × 10^4 MΩ Mean value 1×10^5 MΩ	⩾ 5000 sec (MΩ × µF) Mean value 10 000 sec

In accordance with CECC 30 400 and IEC 384-2
Measuring time, 1 min
Capacitance tolerances: ±20%, ±10%, ±5%.
* These values: ±20%, ±10% (±5% available subject to special enquiry)

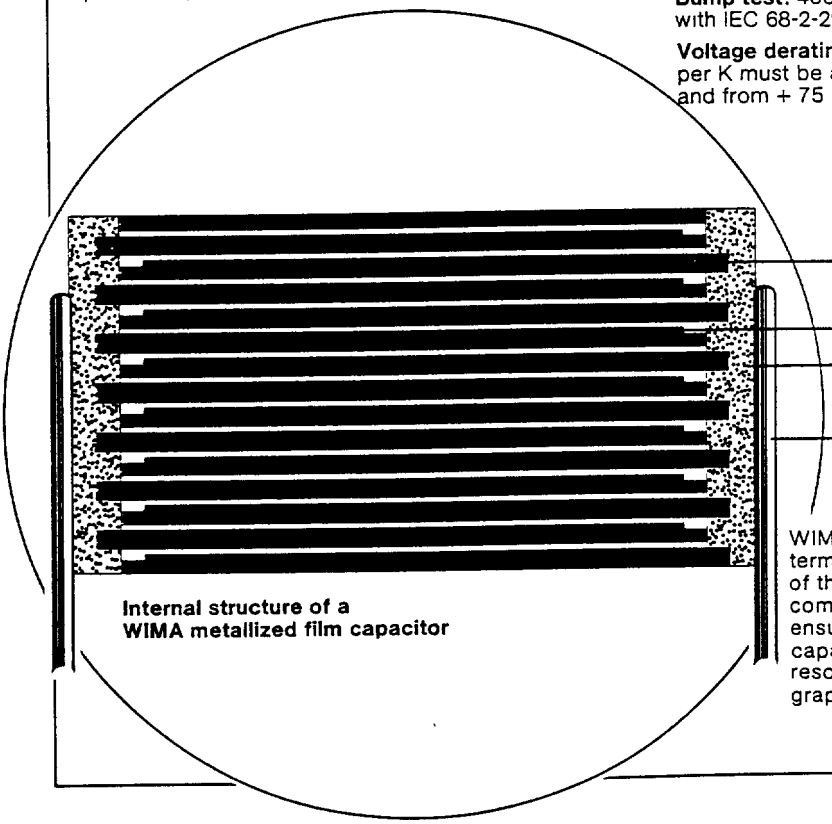
Dissipation factors at +20°C tan δ

at f	C ⩽ 0.1 µF	0.1 µF <C⩽1.0 µF	C >1.0 µF
1 kHz	⩽ 8×10^{-3}	⩽ 8×10^{-3}	⩽ 10×10^{-3}
10 kHz	⩽ 15×10^{-3}	⩽ 15×10^{-3}	–
100 kHz	⩽ 25×10^{-3}	–	–

Temperature characteristics: See graph page 5
Maximum pulse rise time:

Capacitance µF		Pulse rise time V/µsec max operation/test 50 VDC	63 VDC	100 VDC	250 VDC	400 VDC
0.01	.0.022	–	35/350	35/350	50/500	80/800
0.033	0.068	–	20/200	25/250	50/500	80/800
0.1	...0.47	12/120	15/150	20/200	50/500	–
0.68	1.0	10/100	12/120	15/150	–	–
1.5	3.3	8/ 80	7.5/75	–	–	–
	4.7	5/ 50	–	–	–	–

for pulses equal to the rated voltage
Test voltage: 1.6 Vr, 2 sec
Pulse test: Based on DIN specifications 44 122.
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/sec² in accordance with IEC 68-2-29
Voltage derating: A voltage derating factor of 1.25% per K must be applied from + 85 °C for DC voltages and from + 75 °C for AC voltages



Internal structure of a WIMA metallized film capacitor

WIMA capacitors have reliable internal end terminations. They employ the simple concept of the wire making electrical contact with the complete end surface of the eletrode which ensures minimal inductance. The result is capacitors of good attenuation and self-resonance behaviour (see technical data and graphs)

General Data

Capac-itance	50 VDC/30 VAC* W	H	L	PCM**	63 VDC/40 VAC* W	H	L	PCM**
0.01 µF					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*
0.047 "					2.5	6.5	7.2	5*
0.068 "					2.5	6.5	7.2	5*
0.1 µF					2.5	6.5	7.2	5*
0.15 "	2.5	6.5	7.2	5*	3.5	8.5	7.2	5
0.22 "	3	7.5	7.2	5	3.5	8.5	7.2	5
0.33 "	3.5	8.5	7.2	5	4.5	9.5	7.2	5
0.47 "	4.5	9.5	7.2	5	5	10	7.2	5
0.68 "	4.5	9.5	7.2	5*	5	10	7.2	5
1.0 µF	5	10	7.2	5*	5.5	11.5	7.2	5
1.5 "	5.5	11.5	7.2	5*	7.2	13	7.2	5*
2.2 "	7.2	13	7.2	5*				
3.3 "	7.2	13	7.2	5**				
4.7 "	7.2	13	7.2	5**				

Capac-itance	100 VDC/63 VAC* W	H	L	PCM**	250 VDC/160 VAC* W	H	L	PCM**	400 VDC/200 VAC* W	H	L	PCM**
0.01 µF	2.5	6.5	7.2	5*	2.5	6.5	7.2	5*	3	7.5	7.2	5*
0.015 "	2.5	6.5	7.2	5*	2.5	6.5	7.2	5*	4.5	8.5	7.2	5*
0.022 "	2.5	6.5	7.2	5*	3	7.5	7.2	5*	4.5	9.5	7.2	5*
0.033 "	2.5	6.5	7.2	5*	3.5	8.5	7.2	5*	5.5	11.5	7.2	5*
0.047 "	2.5	6.5	7.2	5*	4.5	9.5	7.2	5*	7.2	13	7.2	5*
0.068 "	3	7.5	7.2	5	5	10	7.2	5*				
0.1 µF	3	7.5	7.2	5	5.5	11.5	7.2	5*				
0.15 "	4.5	9.5	7.2	5	7.2	13	7.2	5*				
0.22 "	5	10	7.2	5								
0.33 "	5.5	11.5	7.2	5								
0.47 "	5.5	11.5	7.2	5								
0.68 "	7.2	13	7.2	5*								
1.0 µF	7.2	13	7.2	5*								

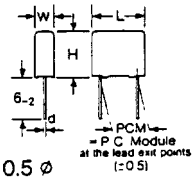
* AC voltage: f = 50 Hz,
1.4 × Vrms + VDC ≤ VDC (rated)

** PCM = printed circuit module = lead spacing

* Produced in accordance with CECC

* See note with respect to capacitance tolerances page 25

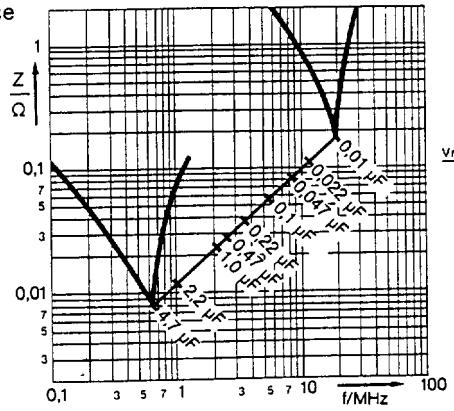
Dims. in mm.



d = 0.5 ø

Taped version see page 12.

Impedance change with frequency (general guide)
The graph applies also to WIMA MKS 2-I and WIMA MKS 22



Permissible AC voltage in relation to frequency at 10° C internal temperature rise (general guide)·