Product Range

- SMD
- PCM 2,5 mm
- PCM 5.0 mm
- PCM 7.5 - 37.5 mm metallized
- PCM 7.5 -15 mm film/foil
- For high current ratings
- Snubber capacitors
- RFI-capacitors

Who is WIMA

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Technical Information

SMD-Sample Box

TECHNICAL SPOTLIGHT

WIMA MKS 02

Metallized polyester capacitors in PCM 2.5 mm

Ideally suited for decoupling up to high-frequency ranges. Very advantageous volume/capacitance ratio. Wide capacitance range with smallest box sizes. PCM 2.5 mm technology with low self-inductance for low damping applications. Available taped and reeled.

Technical Data

Dielectric: Polyethylene terephthalate film.
Capacitor electrodes: Vacuum-deposited aluminium.
Encapsulation: Flame retardent plastic case, UL 94 V-0, with epoxy resin seal.
Colour: Red. Epoxy resin seal: Red. Marking: Silver.
Temperature range: -55° C to +100° C.
Test specifications: In accordance with IEC 60384-2 and EN 130400.
Test category: 55/100/21 in accordance with IEC.
Insulation resistance at +20° C**:**

Ur	Utest	C ≤ 0.33 µF	0.33µF<C≤1.0µF
50 VDC	10 V	≥ 3.75 x 10^3 MΩ Mean value: 1x10^4MΩ	≥ 1250 sec (MΩ x µF) Mean value: 3000 sec
63 VDC	50 V	≥ 1 x 10^4 MΩ Mean value: 2x10^4MΩ	-
100VDC	100V	≥ 1.5 x 10^4 MΩ Mean value: 3x10^4MΩ	-

In accordance with IEC 60384-2 and EN 130400.
Measuring time: 1 min.
Capacitance tolerances: ±20%, ±10%, (±5% available subject to special enquiry).
Test voltage: 1.6 Ur, 2 sec.
Dissipation factors at +20° C: tan delta

at f	C ≤ 0.1 µF	0.1 µF < C ≤ 1.0 µF
1 kHz	≤ 8 x 10^{-3}	≤ 8 x 10^{-3}
10 kHz	≤ 15 x 10^{-3}	≤ 15 x 10^{-3}
100 kHz	≤ 30 x 10^{-3}	-

Maximum pulse rise time:

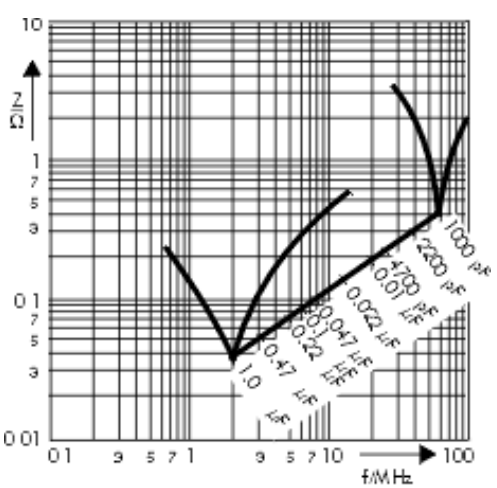
Capacitance pF/µF	Pulse rise time V/µsec	
	max. operation	test
1000...2200	100	1000
3300...6800	100	1000
0.01...0.022	50	500
0.033...0.068	30	300
0.1...0.33	20	200
0.47 ...1.0	15	150

for pulses equal to the rated voltage.
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 m/sec^2 in accordance with IEC 60068-2-29.
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.

Graphs: / Taping:

Example for ordering/Part number

Impedance change with frequency (general guide)



General Data

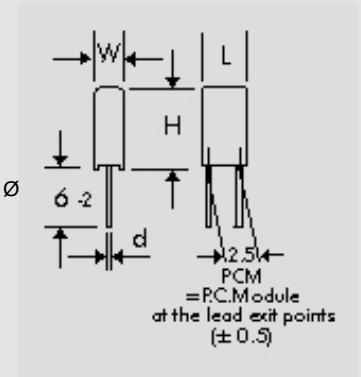
Capaci-tance	50 VDC/ 30 VAC*				63 VDC/ 40 VAC*				100 VDC/ 63 VAC*			
	W	H	L	PCM**	W	H	L	PCM**	W	H	L	PCM**
1000pF	2.5	5.5	4.6	**2.5**	2.5	7	4.6	**2.5**	2.5	7	4.6	**2.5**
1500 "	2.5	5.5	4.6	**2.5**	2.5	7	4.6	**2.5**	2.5	7	4.6	**2.5**
2200 "	2.5	5.5	4.6	**2.5**	2.5	7	4.6	**2.5**	2.5	7	4.6	**2.5**
3300 "	2.5	5.5	4.6	**2.5**	2.5	7	4.6	**2.5**	2.5	7	4.6	**2.5**
4700 "	2.5	5.5	4.6	**2.5**	2.5	7	4.6	**2.5**	2.5	7	4.6	**2.5**
6800 "	2.5	5.5	4.6	**2.5**	2.5	7	4.6	**2.5**	2.5	7	4.6	**2.5**
0.01µF	2.5	5.5	4.6	**2.5**	2.5	7	4.6	**2.5**				
0.015 "	2.5	5.5	4.6	**2.5**	2.5	7	4.6	**2.5**				
0.022 "	2.5	5.5	4.6	**2.5**	2.5	7	4.6	**2.5**				
0.033 "	2.5	5.5	4.6	**2.5**	2.5	7	4.6	**2.5**				
0.047 "	2.5	5.5	4.6	**2.5**	2.5	7	4.6	**2.5**				
0.068 "	2.5	5.5	4.6	**2.5**	3	7.5	4.6	**2.5**				
0.1 µF	2.5	5.5	4.6	**2.5**	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	8.5	4.6	**2.5**								
0.47 "	4.6	9	4.6	**2.5**								
0.68 "	4.6	9	4.6	**2.5**								
1.0 µF	5.5	10	4.6	**2.5**								

* AC voltage: f = 50 Hz;
1.4 x Urms + UDC ≤ Ur

**PCM = Printed circuit module
= lead spacing.

Dims. in mm

d = 0.4 Ø



The former range **WIMA MKS 022** was extensively integrated in the WIMA MKS 02 range.