

# WIMA FKC 3

## Polycarbonate film and foil capacitors for pulse applications

- Good attenuation, high resonant frequency.
- Constant capacitance value with temperature.
- Low ESR because of metal foil electrodes and end-surface contacts.
- High insulation resistance.
- For pulse applications where constant capacitance values with wide temperature ranges are required.
- Available taped and reeled.

### Technical Data

**Dielectric:** Polycarbonate film.

**Capacitor electrodes:** Metal foil.

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

**Temperature range:** - 55° C to + 100° C.

**Test specifications:** In accordance with IEC 60384-12 and EN 131700.

**Test category:** 55/100/56 in accordance with IEC.

**Insulation resistance** at + 20° C:

$\geq 5 \times 10^5$  megohms (mean value:  $1 \times 10^6$  megohms)

In accordance with IEC 60384-12 and EN 131700.

Measuring voltage: 100 V/1 min.

**Dissipation factors** at + 20° C:

$\tan \delta \leq 2 \times 10^{-3}$  at 1 kHz

$\tan \delta \leq 4 \times 10^{-3}$  at 10 kHz

$\tan \delta \leq 8 \times 10^{-3}$  at 100 kHz

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

**Temperature characteristics:** See graph page 5.

**Maximum pulse rise time:** 1000 V/microsecond for pulses equal to the rated voltage.

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

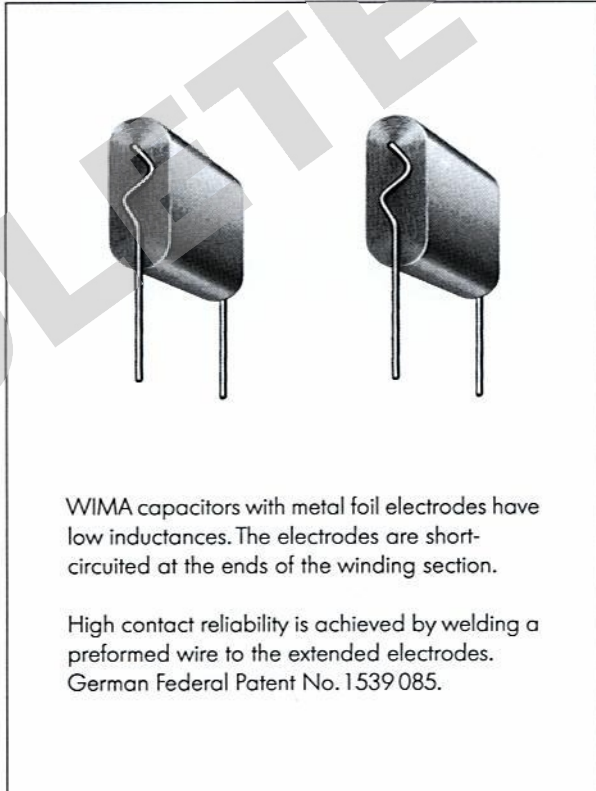
**Vibration:** 6 hours at 10...2000 Hz and 0.75 mm displacement amplitude or 10 g in accordance with IEC 60068-2-6.

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

**Bump test:** 4000 bumps at 390 m/sec<sup>2</sup> in accordance with IEC 60068-2-29.

**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.



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## General Data

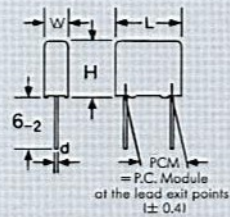
Capacitance	160 VDC / 100 VAC*				250 VDC / 160 VAC*				400 VDC / 250 VAC*				630 VDC / 300 VAC*				1000 VDC / 300 VAC*			
	W	H	L	PCM**	W	H	L	PCM**	W	H	L	PCM**	W	H	L	PCM**	W	H	L	PCM**
100 pF	3	8.5	10	7.5	3	8.5	10	7.5	3	9	13	10	3	9	13	10				
150 „	3	8.5	10	7.5	3	8.5	10	7.5	3	9	13	10	3	9	13	10				
220 „	3	8.5	10	7.5	3	8.5	10	7.5	3	9	13	10	3	9	13	10				
330 „	3	8.5	10	7.5	3	8.5	10	7.5	3	9	13	10	3	9	13	10				
470 „	3	8.5	10	7.5	3	8.5	10	7.5	3	9	13	10	3	9	13	10				
680 „	3	8.5	10	7.5	3	8.5	10	7.5	3	9	13	10	3	9	13	10				
1000 pF	3	8.5	10	7.5	3	8.5	10	7.5	3	9	13	10	3	9	13	10	3	9	13	10
1500 „	3	8.5	10	7.5	3	8.5	10	7.5	3	9	13	10	3	9	13	10	4	10	18	15
2200 „	3	8.5	10	7.5	3	8.5	10	7.5	3	9	13	10	4	9.5	13	10	4	10	18	15
3300 „	3	8.5	10	7.5	4	9	10	7.5	3	9	13	10	4	9.5	13	10	4	10	18	15
4700 „	4	9	10	7.5*	3	9	13	10	4	9.5	13	10	5	11	13	10	5	11	18	15
	3	9	13	10*																
6800 „	4	9	10	7.5*	4	9.5	13	10	5	11	13	10	6	12	13	10	6	12.5	18	15
	4	9.5	13	10*																
0.01 µF	4	9.5	13	10	4	9.5	13	10	6	12	13	10	6	12	13	10*	7	14	18	15
0.015 „	4	9.5	13	10	5	11	13	10	6	12.5	18	15	7	14	18	15				
0.022 „	5	11	13	10	6	12	13	10	7	14	18	15	8	15	18	15				
0.033 „	6	12	13	10	7	14	18	15	8	15	18	15								
0.047 „	6	12.5	18	15	8	15	18	15	9	16	18	15								

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

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

\* On ordering please state the required PCM (lead spacing)!  
 If not specified, smaller PCM will be booked.

Dims. in mm.



Taped version see page 92.

$d = 0.5 \phi$  if  $W = 3$   
 $d = 0.7 \phi$  if  $W \geq 4$   
 $d = 0.8 \phi$  if  $PCM = 15$

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

