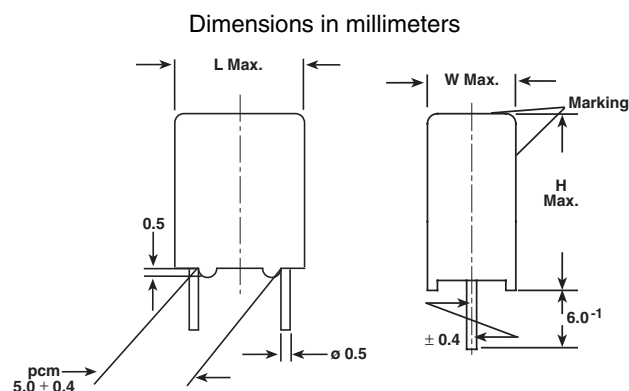


# Polypropylene Film Capacitor Related Document: IEC 60384-13



## MAIN APPLICATIONS

Oscillator, timing and LC/RC filter circuits, high frequency coupling of fast digital and analog IC's.

## MARKING

Manufacturer's logo/type/C-value/rated voltage/tolerance/date of manufacture

## DIELECTRIC

Polypropylene film

## ELECTRODES

Metal foil

## COATING

Flame retardant plastic case (UL-class 94 V-0), color blue, epoxy resin sealed

## CONSTRUCTION

Extended foil (refer to general information)

## LEADS

Tinned wire

## IEC TEST CLASSIFICATION

55/100/56, according to IEC 60068

## OPERATING TEMPERATURE RANGE

- 55 °C to + 100 °C

## CAPACITANCE RANGE

100 pF to 0.033 µF

## DISSIPATION FACTOR TAN δ

FREQUENCY	C < 1000 pF	1000 pF < C < 5000 pF	5000 pF < C < 20000 pF	20000 pF < C < 33000 pF
1 kHz	-	-	-	-
10 kHz	0.0005	0.0005	0.0005	0.0005
100 kHz	-	0.001	0.0015	0.0025
1 MHz	0.001	-	-	-

## CAPACITANCE TOLERANCES

± 10% (K), ± 5% (J), ± 2.5% (H), ± 1% (F)

## RATED VOLTAGES (U<sub>R</sub>)

63 VDC, 250 VDC, 630 VDC

## PERMISSIBLE AC VOLTAGES (RMS) UP TO 60 HZ

40 VAC, 160 VAC, 250 VAC

## TEST VOLTAGE (ELECTRODE/ELECTRODE)

2 x U<sub>R</sub> for 2 sec.

## PULSE RISE TIME

d<sub>v</sub>/d<sub>t</sub> = 1000 V/µs

## INSULATION RESISTANCE

Measured at 100 VDC (63 VDC series measured at 50 VDC) after one minute  
500000 MΩ minimum value (1000 GΩ typical value)

## TEMPERATURE COEFFICIENT

- 200 x 10<sup>-6</sup>/°C (typical value)

## CAPACITANCE DRIFT

Up to + 40 °C, ± 0.3 % for a period of two years

## DERATING FOR DC AND AC

CATEGORY VOLTAGE U<sub>C</sub>

At + 85 °C: U<sub>C</sub> = 1.0 U<sub>R</sub>

At + 100 °C: U<sub>C</sub> = 0.7 U<sub>R</sub>

## SELF INDUCTANCE

~ 6 nH measured with 2 mm long leads

## PULL TEST ON LEADS

≥ 30 N in direction of leads according to IEC 60068-2-21

## DIELECTRIC ABSORPTION

0.05 % (typical value) according to IEC 60384-1

## RELIABILITY

Operational life > 300000 h

Failure rate < 1 FIT (0.5 x U<sub>R</sub> and 40 °C)

For further details, please refer to the general information available at [www.vishay.com/doc?26033](http://www.vishay.com/doc?26033).



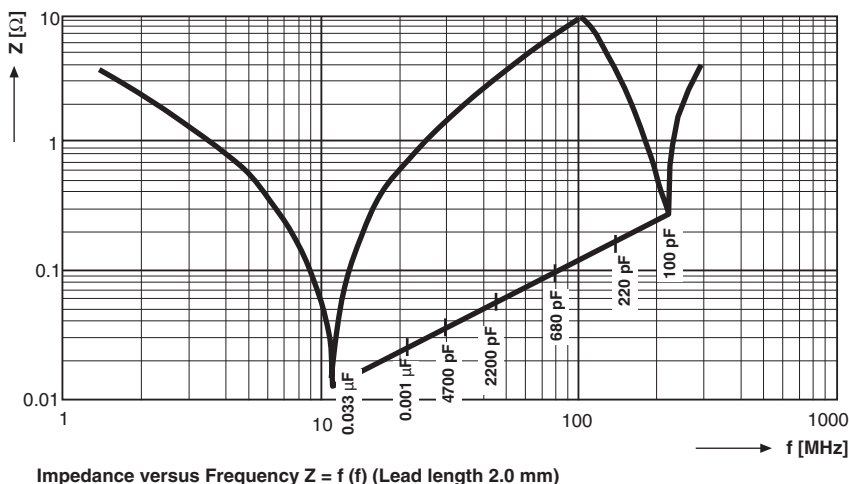
CAPACITANCE	CAPACITANCE CODE	VOLTAGE CODE 06 63 VDC / 40 VAC			VOLTAGE CODE 25 250 VDC / 160 VAC			VOLTAGE CODE 63 630 VDC / 250 VAC		
		W	H	L	W	H	L	W	H	L
100 pF	- 110	—	—	—	—	—	—	4.5	6.0	7.2
150 pF	- 115	—	—	—	—	—	—	4.5	6.0	7.2
220 pF	- 122	—	—	—	—	—	—	4.5	6.0	7.2
330 pF	- 133	—	—	—	—	—	—	4.5	6.0	7.2
470 pF	- 147	—	—	—	—	—	—	4.5	6.0	7.2
680 pF	- 168	—	—	—	—	—	—	4.5	6.0	7.2
1000 pF	- 210	—	—	—	—	—	—	4.5	6.0	7.2
1500 pF	- 215	—	—	—	—	—	—	4.5	6.0	7.2
2200 pF	- 222	—	—	—	4.5	6.0	7.2	—	—	—
3300 pF	- 233	4.5	6.0	7.2	5.5	7.0	7.2	—	—	—
4700 pF	- 247	4.5	6.0	7.2	5.5	7.0	7.2	—	—	—
6800 pF	- 268	4.5	6.0	7.2	7.5	9.0	7.2	—	—	—
0.01 $\mu$ F	- 310	5.5	7.0	7.2	7.5	9.0	7.2	—	—	—
0.015 $\mu$ F	- 315	5.5	7.0	7.2	9.0	10.0	7.2	—	—	—
0.022 $\mu$ F	- 322	7.5	9.0	7.2	—	—	—	—	—	—
0.033 $\mu$ F	- 333	9.0	10.0	7.2	—	—	—	—	—	—

Further C-values upon request.

## RECOMMENDED PACKAGING

LETTER CODE	TYPE OF PACKAGING	HEIGHT (H) (mm)	REEL DIAMETER (mm)	ORDERING CODE EXAMPLE	PCM 5
D	AMMO	16.5	S*	KP 1830-310-065-D	X
G	AMMO	18.5	S*	KP 1830-310-065-G	X
F	REEL	16.5	350	KP 1830-310-065-F	X
W	REEL	18.5	350	KP 1830-310-065-W	X
—	BULK	—	—	KP 1830-310-065	X

\*S = box size 55 x 210 x 340 mm (W x H x L)





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