# imall

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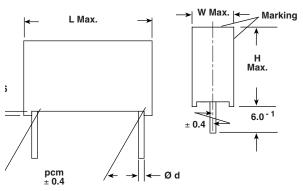


## Not for new designs

MKP 1846 Vishay Roederstein

## Double Metallized Polypropylene Film Capacitor Radial AC and Pulse Capacitor

## Dimensions in millimeters



W	Ød
< 16.0	0.8
≥ 16.0	1.0

## MAIN APPLICATIONS

High voltage, high current and high pulse operations, deflection circuits in TV sets (S-correction and fly-back tuning). Protection circuits in SMPS's. Snubber and electronic ballast circuits. Input and output filtering in SPS designs, storage, timing and integrating circuits.

## MARKING

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

## DIELECTRIC

Polypropylene film

## **ELECTRODES**

Vacuum deposited aluminum

## COATING

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

## CONSTRUCTION

Extended double-sided metallized polyester film, internal series connection, single-sided metallized polypropylene film (refer to general information)

#### LEADS

Tinned wire

## **IEC TEST CLASSIFICATION**

55/100/56, according to IEC 60068

## **FEATURES**

Product is completely lead (Pb)-free Product is RoHS-compliant

#### OPERATING TEMPERATURE RANGE - 55°C to + 100°C

CAPACITANCE RANGE 1000pF to 0.68µF

## CAPACITANCE TOLERANCES

± 20% (M), ± 10% (K), ± 5% (J)

RATED VOLTAGES (U<sub>R</sub>): 630 VDC, 1000 VDC, 1600 VDC, 2000 VDC

PERMISSIBLE AC VOLTAGES (RMS) UP TO 60Hz 400 VAC, 600 VAC, 650 VAC, 700 VAC

TEST VOLTAGE (ELECTRODE/ELECTRODE) 1.6 x U<sub>R</sub> for 2 s

## INSULATION RESISTANCE

Measured at 100 VDC after one minute For  $C \le 0.33 \mu$ F: 100,000 M $\Omega$  minimum value TIME CONSTANT Measured at 100 VDC after one minute For  $C > 0.33 \mu$ F: 30,000 s minimum value

## **TEMPERATURE COEFFICIENT**

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

## **CAPACITANCE DRIFT**

Up to + 40°C,  $\pm$  0.5% for a period of two years

## DERATING FOR DC AND AC.CATEGORY VOLTAGE U<sub>C</sub>

At + 85°C:  $U_{C} = 1.0 U_{R}$ At + 100°C:  $U_{C} = 0.7 U_{R}$ 

## SELF INDUCTANCE

~ 6 nH measured with 2mm long leads

## PULL TEST ON LEADS

 $\geq$  30 N in direction of leads according to IEC 60068-2-21

## RELIABILITY

Operational life > 300,000 h Failure rate < 5 FIT (40 $^{\circ}$ C and 0.5 x U<sub>R</sub>)

For further details, please refer to the general information available at <u>www.vishay.com/doc?26033</u>.

## MAXIMUM PULSE RISE TIME

PCM		Maximum Pulse Rise Time d <sub>v</sub> /d <sub>t</sub> [V/µs]								
(mm)	630 VDC	1000 VDC	1600 VDC	2000 VDC						
15	3430	6600	11100	—						
22.5	2120	2800	3800	6200						
27.5	1524	2000	2680	4200						
37.5	980	1280	1690	2600						

If the maximum pulse voltage is less than the rated voltage higher  $d_v/d_t$  values can be permitted.



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## DISSIPATION FACTOR TAN $\boldsymbol{\delta}$

MEASURED AT	C ≤ 0.1µF	0.1μF < C ≤ 1.0μF			
1kHz	0.3 x 10 <sup>-3</sup>	0.3 x 10 <sup>-3</sup>			
10kHz	0.4 x 10 <sup>-3</sup>	0.4 x 10 <sup>-3</sup>			
100kHz	1.5 x 10 <sup>-3</sup>	—			
	Maximum values				

CAPACI- TANCE	CAPACI- TANCE CODE	CE CODE 63			VOLTAGE CODE 10 1000 VDC/600 VAC			VOLTAGE CODE 13 1600 VDC/650 VAC			VOLTAGE CODE 20 2000 VDC/700 VAC						
		w	н	L	PCM	w	н	L	PCM	w	н	L	PCM	w	н	L	РСМ
1000pF	- 210	_	_	_	—	_	_	_	—	5.5	10.5	18.0	15	6.5	14.5	26.5	22.5
1500pF	- 215	_	_	_	_		_	_	_	5.5	10.5	18.0	15	6.5	14.5	26.5	22.5
2200pF	- 222	_	_			_				5.5	10.5	18.0	15	6.5	14.5	26.5	22.5
3300pF	- 233	_	_	_		5.5	10.5	18.0	15	6.5	12.5	18.0	15	6.5	14.5	26.5	22.5
4700pF	- 247	_	_	_		5.5	10.5	18.0	15	7.5	13.5	18.0	15	6.5	14.5	26.5	22.5
6800pF	- 268	5.5	10.5	18.0	15	6.5	12.5	18.0	15	8.5	14.5	18.0	15	7.5	15.5	26.5	22.5
0.01µF	- 310	5.5	10.5	18.0	15	6.5	14.5	26.5	22.5	6.5	14.5	26.5	22.5	8.5	16.5	26.5	22.5
0.015µF	- 315	6.5	12.5	18.0	15	6.5	14.5	26.5	22.5	7.5	15.5	26.5	22.5	10.5	18.5	26.5	22.5
0.022µF	- 322	7.5	13.5	18.0	15	6.5	14.5	26.5	22.5	8.5	16.5	26.5	22.5	11.5	20.5	31.5	27.5
0.033µF	- 333	8.5	14.5	18.0	15	7.5	15.5	26.5	22.5	10.5	18.5	26.5	22.5	13.5	23.5	31.5	27.5
0.047µF	- 347	7.5	15.5	26.5	22.5	10.5	18.5	26.5	22.5	11.5	20.5	31.5	27.5	15.0	24.5	31.5	27.5
0.068µF	- 368	8.5	16.5	26.5	22.5	11.0	21.0	26.5	22.5	11.5	20.5	31.5	27.5	16.5	29.5	31.5	27.5
0.1µF	- 410	10.5	18.5	26.5	22.5	11.5	20.5	31.5	27.5	15.0	24.5	31.5	27.5	16.0	28.5	41.5	37.5
0.15µF	- 415	11.5	20.5	31.5	27.5	13.5	23.5	31.5	27.5	14.5	24.5	41.5	37.5	_	_	_	_
0.22µF	- 422	13.5	23.5	31.5	27.5	16.5	29.5	31.5	27.5	16.0	28.5	41.5	37.5	_	_	_	_
0.33µF	- 433	15.0	24.5	31.5	27.5	_	_	_	_	_	_	—	—	_	_	_	_
0.47µF	- 447	14.5	24.5	41.5	37.5	_	_	_	_	_	_	—	—	_	—	_	-
0.68µF	- 468	18.0	32.5	41.5	37.5	—	_	_	_	_	-	_	_	_	_	_	_

Further C-values upon request.

## **RECOMMENDED PACKAGING**

LETTER CODE	TYPE OF PACKAGING	HEIGHT (H) (mm)	REEL DIAMETER (mm)	ORDERING CODE EXAMPLES	PCM 15	PCM 22.5 - 27.5	PCM 37.5
D	AMMO	16.5	S*	MKP 1846-310/635-D	Х	—	_
G	AMMO	18.5	S*	MKP 1846-310/635-G	Х	—	
F	REEL	16.5	350	MKP 1846-310/635-F	Х	—	_
W	REEL	18.5	350	MKP 1846-310/635-W	Х	—	_
V	REEL	18.5	500	MKP 1846-410/105-V	Х	Х	
G	AMMO	18.5	L*	MKP 1846-410/105-G	—	Х	_
—	BULK	—	—	MKP 1846-422-135	Х	Х	Х

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

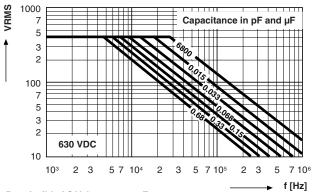
\*L = box size 60 x 360 x 510mm (W x H x L)



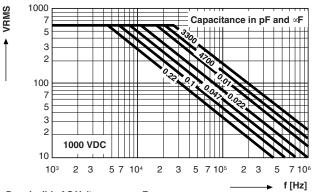
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MKP 1846

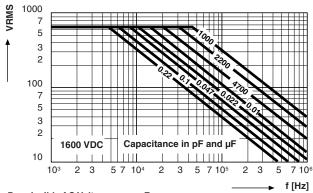
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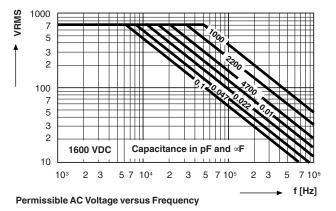














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