MKP 1837



Vishay Roederstein

Metallized Polypropylene Film Capacitor Related Document: IEC 60384-16

Dimensions in millimeters w Max. Max Marking ⋪ н Max. 0.6 ¥ ¥ 6.0 ^{- 1} + 0.4

Ø 0.5

MAIN APPLICATIONS

Oscillator, timing and LC/RC filter circuits, high frequency coupling/decoupling, sample and hold circuits.

MARKING

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

DIELECTRIC

 5.0 ± 0.4

Polypropylene film

ELECTRODES

Vacuum deposited aluminum

COATING

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

CONSTRUCTION

Extended metallized film (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

0.01µF to 0.1µF

CAPACITANCE DRIFT

Up to $+40^{\circ}$ C, < 0.5% for a period of two years

FEATURES

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

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

RATED VOLTAGES (U_R) 160 VDC



PERMISSIBLE AC VOLTAGES (RMS) UP TO 60HZ 100 VAC

TEST VOLTAGE (ELECTRODE/ELECTRODE) 1.6 x U_B for 2 s

INSULATION RESISTANCE

Measured at 100 VDC after one minute 100,000 M Ω minimum value

TEMPERATURE COEFFICIENT

- 250°C x 10⁻⁶/°C (typical value)

MAXIMUM PULSE RISE TIME

 $dv/dt = 390 V/\mu s$ If the maximum pulse voltage is less than the rated voltage, higher dv/dt values can be permitted.

DERATING FOR DC AND AC.CATEGORY VOLTAGE UC

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

SELF INDUCTANCE

~ 6 nH measured with 2mm long leads

PULL TEST ON LEADS

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

DIELECTRIC ABSORPTION

0.05% (typical value) acc. to IEC 60384-1

RELIABILITY

Operational life > 300,000 h Failure rate < 5 FIT (40°C and 0.5 x U_B)

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

DISSIPATION FACTOR TAN δ

MEASURED AT	C ≤ 0.1µF			
1kHz	0.4 x 10 ⁻³			
10kHz	0.6 x 10 ⁻³			
100kHz	4 x 10 ⁻³			
Maximum values				

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CAPACITANCE	CAPACITANCE CODE	VOLTAGE CODE 16 160 VDC/100 VAC		
		W	Н	L
0.01µF	- 310	5.5	7.0	7.5
0.015µF	- 315	5.5	7.0	7.5
0.022µF	- 322	5.5	7.0	7.5
0.033µF	- 333	7.5	9.0	7.5
0.047µF	- 347	7.5	9.0	7.5
0.068µF	- 368	7.5	9.0	7.5
0.1µF	- 410	9.0	11.0	7.5

Further C-values upon request

RECOMMENDED PACKAGING

LETTER CODE	TYPE OF PACKAGING	HEIGHT (H) (mm)	REEL DIAMETER (mm)	ORDERING CODE EXAMPLES	PCM 5
D	AMMO	16.5	S*	MKP 1837-322-162-D	х
G	AMMO	18.5	S*	MKP 1837-322-162-G	х
F	REEL	16.5	350	MKP 1837-322-162-F	х
w	REEL	18.5	350	MKP 1837-322-162-W	х
_	BULK	_	_	MKP 1837-322-162	Х





www.vishay.com 2 For technical questions contact; dc-film@vishay.com



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