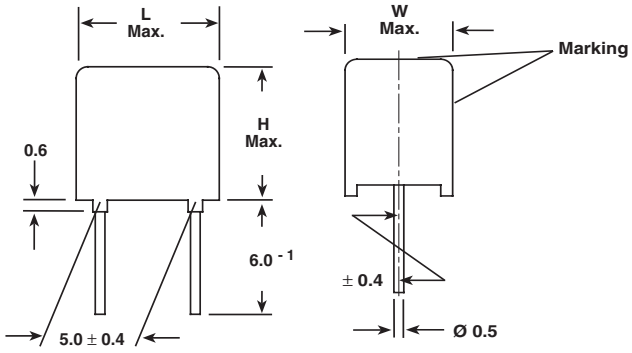
Metallized Polypropylene Film Capacitor
Related Document: IEC 60384-16

Dimensions in millimeters



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
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°C, < 0.5% for a period of two years

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

Pb-free

e3

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_R for 2 s

INSULATION RESISTANCE
Measured at 100 VDC after one minute
100,000 MΩ minimum value

TEMPERATURE COEFFICIENT
- 250°C x 10^{-6}/°C (typical value)

MAXIMUM PULSE RISE TIME
dv/dt = 390 V/µs
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 U_C
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
≥ 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_R)

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

DISSIPATION FACTOR TAN δ

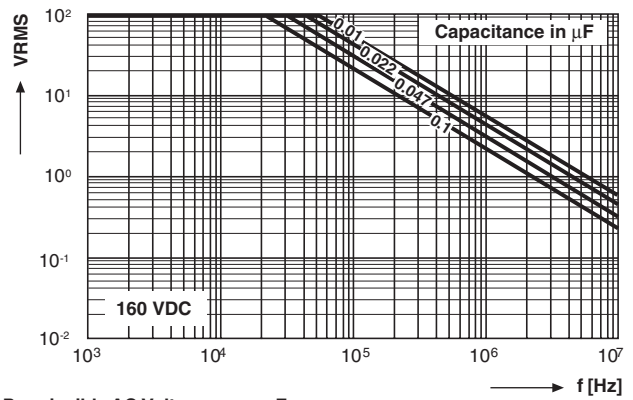
MEASURED AT	C ≤ 0.1µF
1kHz	0.4 x 10^{-3}
10kHz	0.6 x 10^{-3}
100kHz	4 x 10^{-3}
Maximum values	

CAPACITANCE	CAPACITANCE CODE	VOLTAGE CODE 16 160 VDC/100 VAC		
		W	H	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

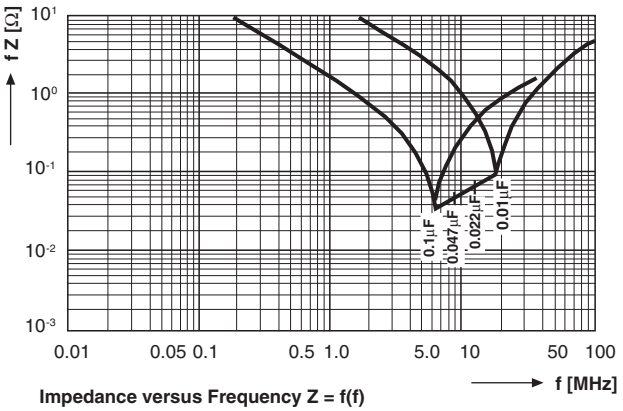
Further C-values upon request

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	X
G	AMMO	18.5	S*	MKP 1837-322-162-G	X
F	REEL	16.5	350	MKP 1837-322-162-F	X
W	REEL	18.5	350	MKP 1837-322-162-W	X
—	BULK	—	—	MKP 1837-322-162	X



Permissible AC Voltage versus Frequency



Impedance versus Frequency Z = f(f)
(Lead length 2.0mm)

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