

Metallized Polypropylene Film Capacitor

Related Document: IEC 60384-16

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:

0.01 μ F to 0.1 μ F

CAPACITANCE TOLERANCES:

$\pm 10\%$ (K), $\pm 5\%$ (J), $\pm 2.5\%$ (H), $\pm 1\%$ (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

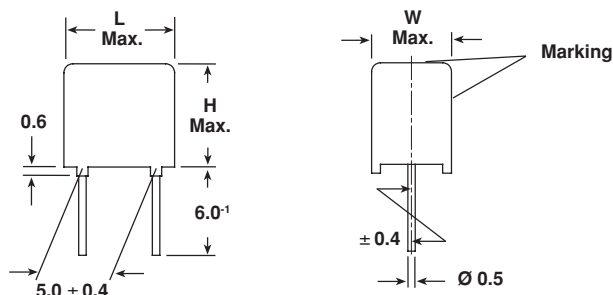
INSULATION RESISTANCE:

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

DISSIPATION FACTOR TAN δ

MEASURED AT	$C \leq 0.1 \mu F$
1kHz	0.4×10^{-3}
10kHz	0.6×10^{-3}
100kHz	4×10^{-3}
	Maximum values

Dimensions in millimeters

**TEMPERATURE COEFFICIENT:**

- 250°C x 10⁻⁶/°C (typical value)

CAPACITANCE DRIFT:

Up to + 40°C, < 0.5% for a period of two years

MAXIMUM PULSE RISE TIME:

$dV/dt = 390 \text{ V}/\mu\text{s}$

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 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:

$\geq 30 \text{ N}$ 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 provided in this catalog.



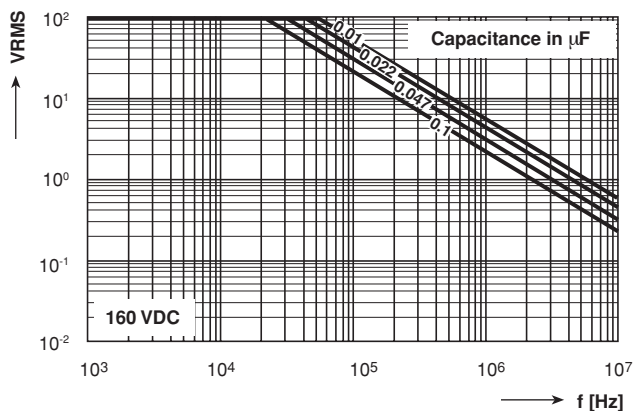
CAPACITANCE	CAPACITANCE CODE	VOLTAGE CODE 16 160 VDC/100 VAC		
		W	H	L
0.01 μF	- 310	5.5	7.0	7.5
0.015 μF	- 315	5.5	7.0	7.5
0.022 μF	- 322	5.5	7.0	7.5
0.033 μF	- 333	7.5	9.0	7.5
0.047 μF	- 347	7.5	9.0	7.5
0.068 μF	- 368	7.5	9.0	7.5
0.1 μF	- 410	9.0	11.0	7.5

Further C-values upon request

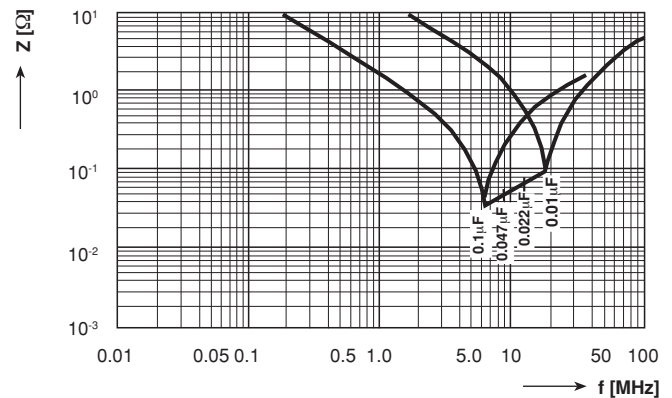
RECOMMENDED PACKAGING

LETTER CODE	TYPE OF PACKAGING	HEIGHT (H) (mm)	REEL DIAMETER (mm)	ORDERING CODE EXAMPLE	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

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



Permissible AC Voltage versus Frequency

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