

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

0.01µF to 0.1µF

CAPACITANCE DRIFT

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

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	

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

RoHS
COMPLIANT

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.

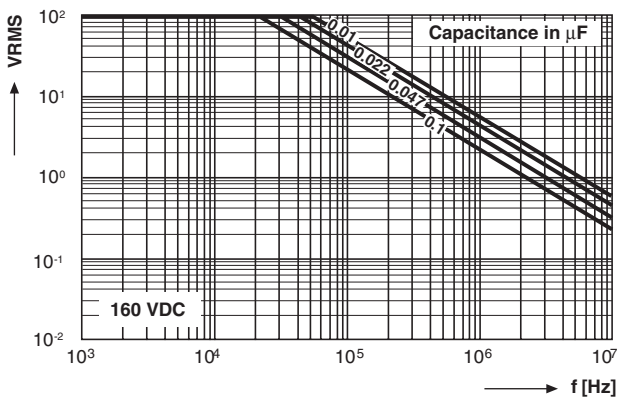


CAPACITANCE	CAPACITANCE CODE	VOLTAGE CODE 16 160 VDC/100 VAC		
		W	H	L
0.01 μ F	- 310	5.5	7.0	7.5
0.015 μ F	- 315	5.5	7.0	7.5
0.022 μ F	- 322	5.5	7.0	7.5
0.033 μ F	- 333	7.5	9.0	7.5
0.047 μ F	- 347	7.5	9.0	7.5
0.068 μ F	- 368	7.5	9.0	7.5
0.1 μ F	- 410	9.0	11.0	7.5

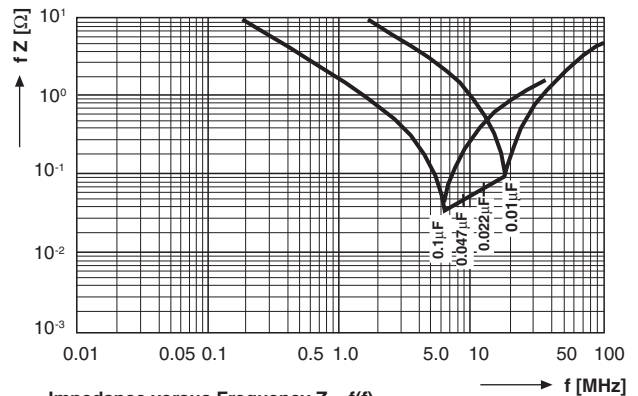
Further C-values upon request

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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