

## 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 $\tan \delta$

MEASURED AT	$C \leq 0.1\mu F$
1kHz	$0.4 \times 10^{-3}$
10kHz	$0.6 \times 10^{-3}$
100kHz	$4 \times 10^{-3}$
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  $10^{-6}/^{\circ}C$  (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](http://www.vishay.com/doc?26033).

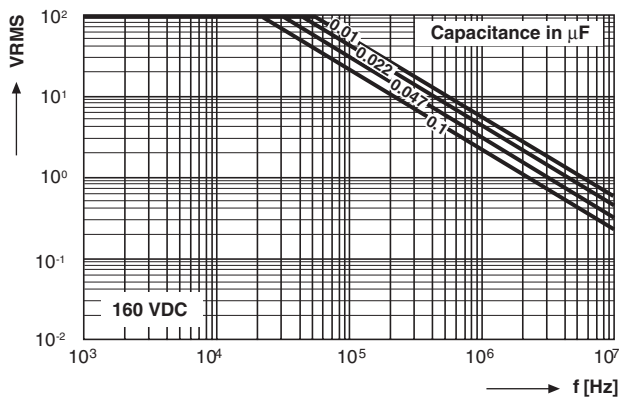


CAPACITANCE	CAPACITANCE CODE	VOLTAGE CODE 16 160 VDC/100 VAC		
		W	H	L
0.01 $\mu$ F	- 310	5.5	7.0	7.5
0.015 $\mu$ F	- 315	5.5	7.0	7.5
0.022 $\mu$ F	- 322	5.5	7.0	7.5
0.033 $\mu$ F	- 333	7.5	9.0	7.5
0.047 $\mu$ F	- 347	7.5	9.0	7.5
0.068 $\mu$ F	- 368	7.5	9.0	7.5
0.1 $\mu$ F	- 410	9.0	11.0	7.5

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





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