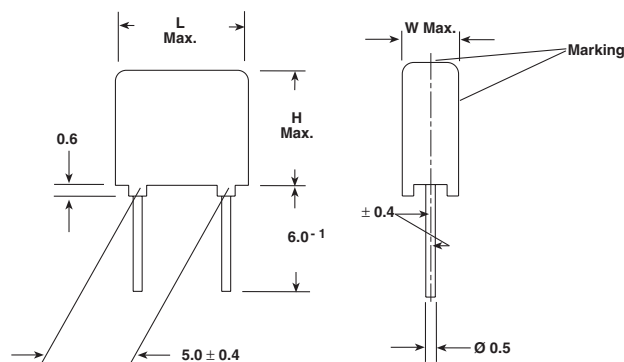


Metallized Polyester Film Capacitors

Related Document: IEC 60384-2

Dimensions in millimeters



MAIN APPLICATIONS

Blocking, bypassing, filtering and timing, high frequency coupling and decoupling for fast digital and analog ICs, interference suppression in low voltage applications.

MARKING

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

DIELECTRIC

Polyester film

ELECTRODES

Vacuum deposited aluminum

COATING

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

CONSTRUCTION

Extended metallized film (refer to general information)

LEADS

Tinned wire

IEC TEST CLASSIFICATION

55/100/56, according to IEC 60068

TEST VOLTAGE (ELECTRODE/ELECTRODE)

1.6 x U_R for 2 s

OPERATING TEMPERATURE RANGE

- 55°C to + 100°C

MAXIMUM PULSE RISE TIME

PCM (mm)	Maximum Pulse Rise Time d_v/d_t [V/μs]			
	63 VDC	100 VDC	250 VDC	400 VDC
5	15	24	44	100

If the maximum pulse voltage is less than the rated voltage higher d_v/d_t values can be permitted.

DISSIPATION FACTOR $\tan \delta$

MEASURED AT	$C \leq 0.1\mu F$	$0.1\mu F < C \leq 1.0\mu F$
1kHz	8×10^{-3}	8×10^{-3}
10kHz	15×10^{-3}	15×10^{-3}
100kHz	25×10^{-3}	—
Maximum values		

FEATURES

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

CAPACITANCE RANGE

1000pF to 1.0μF

CAPACITANCE TOLERANCES

± 20% (M), ± 10% (K), ± 5% (J)

RATED VOLTAGES (U_R)

63 VDC, 100 VDC, 250 VDC, 400 VDC

PERMISSIBLE AC VOLTAGES (RMS) UP TO 60HZ

40 VAC, 63 VAC, 160 VAC, 200 VAC

INSULATION RESISTANCE

Measured with 100 VDC

(63 VDC series measured at 50 VDC) after one minute

For $C \leq 0.33\mu F$ and $U_R > 100$ VDC:

7500 MΩ minimum value (100,000 MΩ typical value)

For $C \leq 0.33\mu F$ and $U_R \leq 100$ VDC:

3750 MΩ minimum value (50,000 MΩ typical value)

TIME CONSTANT

Measured with 50 VDC after one minute

For $C > 0.33\mu F$:

1250 s minimum value (10,000 s typical value)

CAPACITANCE DRIFT

Up to + 40°C, ± 1.5% for a period of two years

DERATING FOR DC AND AC. CATEGORY VOLTAGE U_C

At + 85°C: $U_C = 1.0 U_R$

At + 100°C: $U_C = 0.8 U_R$

SELF INDUCTANCE

~ 6nH measured with 2mm long leads

PULL TEST ON LEADS

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

RELIABILITY

Operational life > 300,000h

Failure rate < 2 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.



RoHS
COMPLIANT

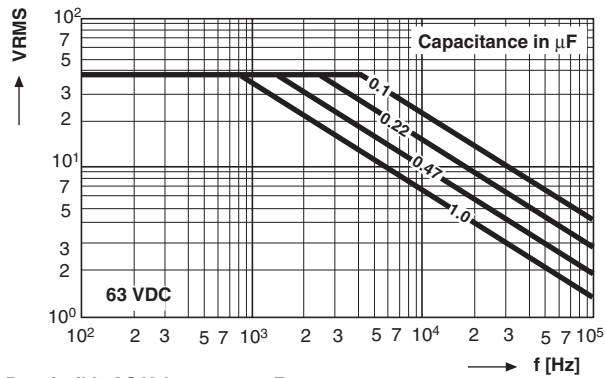
CAPACITANCE	CAPACITANCE CODE	VOLTAGE CODE 06 63 VDC/40 VAC			VOLTAGE CODE 01 100 VDC/63 VAC			VOLTAGE CODE 25 250 VDC/160 VAC			VOLTAGE CODE 40 400 VDC/200 VAC		
		W	H	L	W	H	L	W	H	L	W	H	L
1000pF	- 210	—	—	—	—	—	—	—	—	—	2.5	6.0	7.5
1500pF	- 215	—	—	—	—	—	—	—	—	—	2.5	6.0	7.5
2200pF	- 222	—	—	—	—	—	—	—	—	—	2.5	6.0	7.5
3300pF	- 233	—	—	—	—	—	—	2.5	6.0	7.5	3.0	6.5	7.5
4700pF	- 247	—	—	—	—	—	—	2.5	6.0	7.5	3.5	8.5	7.5
6800pF	- 268	—	—	—	—	—	—	2.5	6.0	7.5	3.5	8.5	7.5
0.01μF	- 310	—	—	—	—	—	—	2.5	6.0	7.5	4.5	9.5	7.5
0.015μF	- 315	—	—	—	—	—	—	2.5	6.0	7.5	5.0	10.0	7.5
0.022μF	- 322	—	—	—	2.5	6.0	7.5	3.0	6.5	7.5	5.5	11.5	7.5
0.033μF	- 333	—	—	—	2.5	6.0	7.5	3.5	8.5	7.5	—	—	—
0.047μF	- 347	—	—	—	2.5	6.0	7.5	4.5	9.5	7.5	—	—	—
0.068μF	- 368	—	—	—	2.5	6.0	7.5	4.5	9.5	7.5	—	—	—
0.1μF	- 410	2.5	6.0	7.5	3.5	8.5	7.5	5.5	11.5	7.5	—	—	—
0.15μF	- 415	3.5	8.5	7.5	4.5	9.5	7.5	—	—	—	—	—	—
0.22μF	- 422	3.5	8.5	7.5	5.0	10.0	7.5	—	—	—	—	—	—
0.33μF	- 433	4.5	9.5	7.5	5.5	9.0	11.5	7.5	—	—	—	—	—
0.47μF	- 447	5.0	10.0	7.5	—	—	—	—	—	—	—	—	—
0.68μF	-468	5.0	10.5	7.5	—	—	—	—	—	—	—	—	—
1.0μF	- 510	5.5	11.5	7.5	—	—	—	—	—	—	—	—	—

Further values upon request. For C-values > 1.0μF please refer to type MKT 1826.

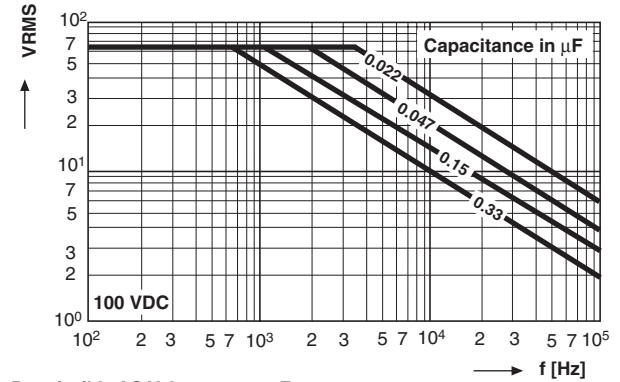
RECOMMENDED PACKAGING

LETTER CODE	TYPE OF PACKAGING	HEIGHT (H) (mm)	REEL DIAMETER (mm)	ORDERING CODE EXAMPLES	PCM 5
D	AMMO	16.5	S*	MKT 1817-233-255-D	X
G	AMMO	18.5	S*	MKT 1817-233-255-G	X
F	REEL	16.5	350	MKT 1817-233-255-F	X
W	REEL	18.5	350	MKT 1817-233-255-W	X
—	BULK	—	—	MKT 1817-233-255	X

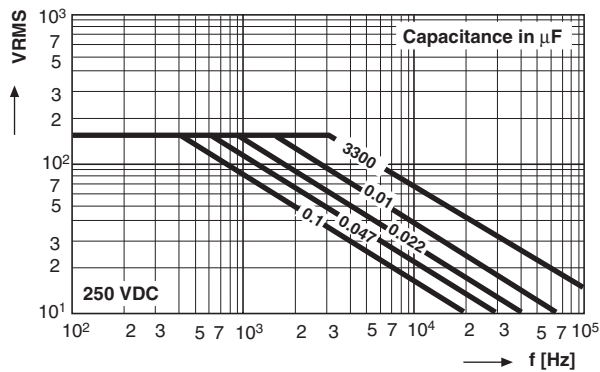
*S = box size 55 x 210 x 340mm (W x H x L)



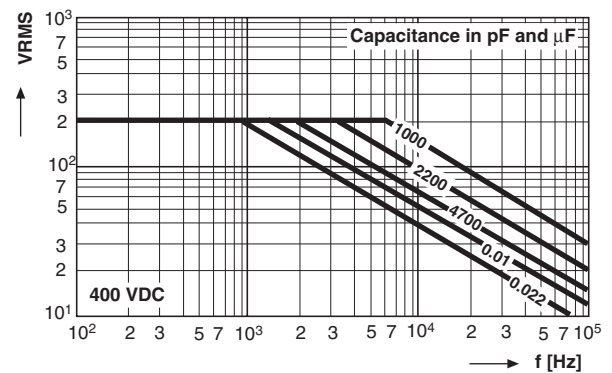
Permissible AC Voltage versus Frequency



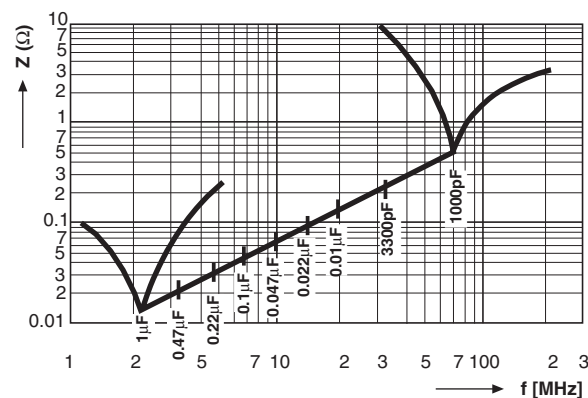
Permissible AC Voltage versus Frequency



Permissible AC Voltage versus Frequency



Permissible AC Voltage versus Frequency



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



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