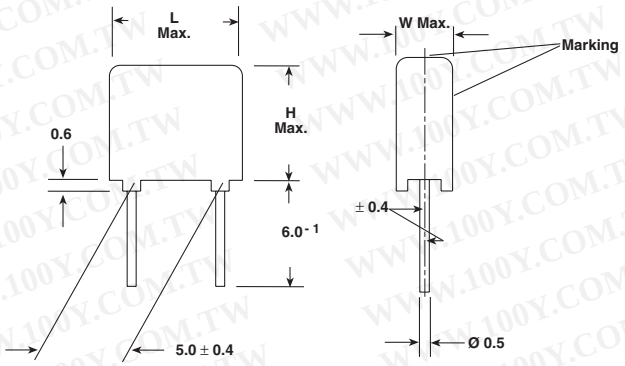
Metallized Polyester Film Capacitors
Related Document: IEC 60384-2

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

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

Pb-free

e3

RoHS COMPLIANT

CAPACITANCE RANGE
1000pF to 1.0µFF

CAPACITANCE TOLERANCES
± 20% (M), ± 10% (K), ± 5% (J)

RATED VOLTAGES (UR)
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 ≤ 0.33µF and U_R > 100 VDC:
7500 MΩ minimum value (100,000 MΩ typical value)
For C ≤ 0.33µF and U_R ≤ 100 VDC:
3750 MΩ minimum value (50,000 MΩ typical value)

TIME CONSTANT
Measured with 50 VDC after one minute
For C > 0.33µF:
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.

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 δ

MEASURED AT	C ≤ 0.1µF	0.1µF < C ≤ 1.0µF
1kHz	8×10^{-3}	8×10^{-3}
10kHz	15×10^{-3}	15×10^{-3}
100kHz	25×10^{-3}	—
	Maximum values	

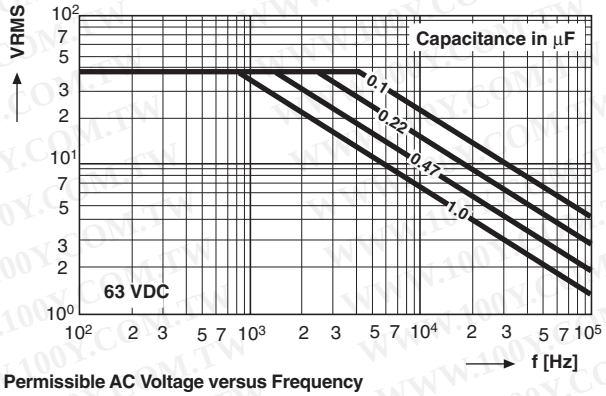
CAPACITANCE	CAPACITANCE CODE	VOLTAGE CODE 06 63 VDC/40 VAC			VOLTAGE CODE 01 100 VDC/63 VAC			VOLTAGE CODE 25 250 VDC/160 VAC			VOLTAGE CODE 40 400 VDC/200 VAC		
		W	H	L	W	H	L	W	H	L	W	H	L
1000pF	- 210	—	—	—	—	—	—	—	—	—	2.5	6.0	7.5
1500pF	- 215	—	—	—	—	—	—	—	—	—	2.5	6.0	7.5
2200pF	- 222	—	—	—	—	—	—	—	—	—	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.

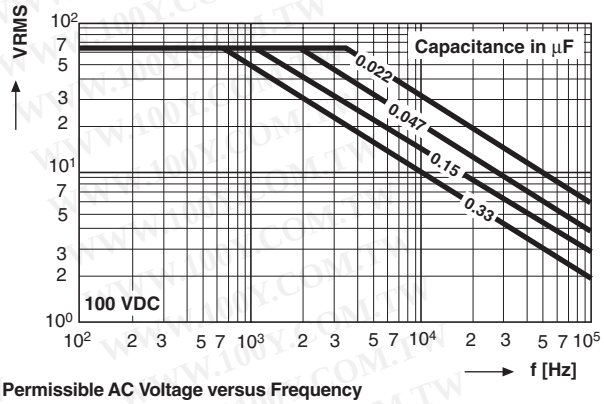
RECOMMENDED PACKAGING

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



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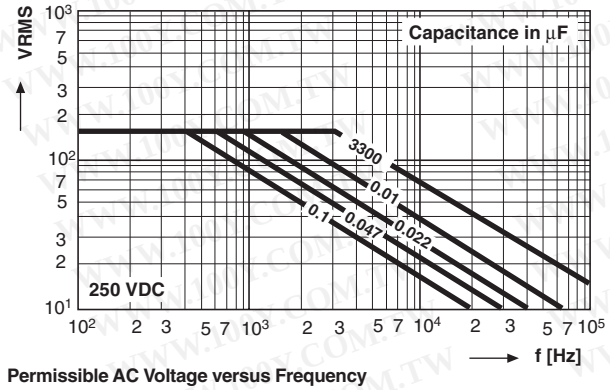

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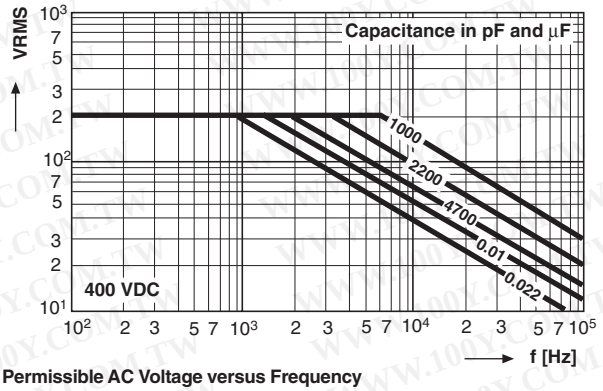
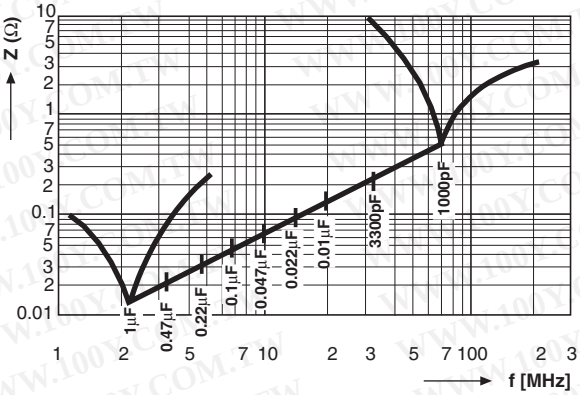


Permissible AC Voltage versus Frequency



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

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