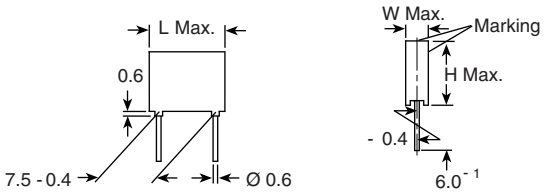
Metallized Polyester Film Capacitors
Related Document: IEC 60384-2

Dimensions in millimeters



MAIN APPLICATIONS
Blocking, bypassing, filtering and timing, high frequency coupling and decoupling. 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), 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
1000 pF to 1.0 µF

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

RATED VOLTAGES (U_R)
63 V_{DC}, 100 V_{DC}, 250 V_{DC}, 400 V_{DC}, 630 V_{DC}

FEATURES
• Compliant to RoHS directive 2002/95/EC

PERMISSIBLE AC VOLTAGES (RMS) UP TO 60 Hz
40 V_{AC}, 63 V_{AC}, 160 V_{AC}, 200 V_{AC}, 220 V_{AC}

TEST VOLTAGE (ELECTRODE/ELECTRODE)
1.6 x U_R for 2 s

INSULATION RESISTANCE
Measured with 100 V_{DC} (63 V_{DC} series at 50 V_{DC}) after one minute

For C ≤ 0.33 µF and U_R > 100 V_{DC}:

30 000 MΩ minimum value (100,000 MΩ typical value)

For C ≤ 0.33 µF and U_R ≤ 100 V_{DC}:

15 000 MΩ minimum value (50 000 MΩ typical value)

TIME CONSTANT
Measured at 100 V_{DC} (63 V_{DC} series measured at 50 V_{DC}) after one minute

For C > 0.33 µF and U_R ≤ 100 V_{DC}:

5000 s minimum value (15 000 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
~ 6 nH measured with 2 mm long leads

PULL TEST ON LEADS
≥ 30 N in direction of leads according to IEC 60068-2-21

RELIABILITY
Operational life > 300 000 Hz

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 dV/dt [V/µs]				
	63 V_{DC}	100 V_{DC}	250 V_{DC}	400 V_{DC}	630 V_{DC}
7.5	12	20	32	41	70

Note

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

DISSIPATION FACTOR TAN δ

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

CAPACITANCE	CAPACITANCE CODE	VOLTAGE CODE 06 63 V_{DC}/40 V_{AC}			VOLTAGE CODE 01 100 V_{DC}/63 V_{AC}			VOLTAGE CODE 25 250 V_{DC}/160 V_{AC}			VOLTAGE CODE 40 400 V_{DC}/200 V_{AC}			VOLTAGE CODE 63 (1) 630 V_{DC}/220 V_{AC}		
		W	H	L	W	H	L	W	H	L	W	H	L	W	H	L
1000 pF	-210	-	-	-	-	-	-	-	-	-	-	-	-	2.5	7.5	10.0
1500 pF	-215	-	-	-	-	-	-	-	-	-	-	-	-	2.5	7.5	10.0
2200 pF	-222	-	-	-	-	-	-	-	-	-	-	-	-	2.5	7.5	10.0
3300 pF	-233	-	-	-	-	-	-	-	-	-	2.5	7.5	10.0	3.0	8.5	10.0
4700 pF	-247	-	-	-	-	-	-	-	-	-	2.5	7.5	10.0	-	-	-
6800 pF	-268	-	-	-	-	-	-	-	-	-	2.5	7.5	10.0	-	-	-
0.01 µF	-310	-	-	-	-	-	-	2.5	7.5	10.0	3.0	8.5	10.0	-	-	-
0.015 µF	-315	-	-	-	-	-	-	2.5	7.5	10.0	-	-	-	-	-	-
0.022 µF	-322	-	-	-	2.5	7.5	10.0	3.0	8.5	10.0	-	-	-	-	-	-
0.033 µF	-333	-	-	-	2.5	7.5	10.0	3.0	8.5	10.0	-	-	-	-	-	-
0.047 µF	-347	-	-	-	2.5	7.5	10.0	4.0	9.0	10.0	-	-	-	-	-	-
0.068 µF	-368	-	-	-	2.5	7.5	10.0	4.5	9.5	10.0	-	-	-	-	-	-
0.1 µF	-410	2.5	7.5	10.0	3.0	8.5	10.0	5.0	10.5	10.3	-	-	-	-	-	-
0.15 µF	-415	2.5	7.5	10.0	3.0	8.5	10.0	-	-	-	-	-	-	-	-	-
0.22 µF	-422	3.0	8.5	10.0	4.0	9.0	10.0	-	-	-	-	-	-	-	-	-
0.33 µF	-433	4.0	9.0	10.0	5.0	10.5	10.3	-	-	-	-	-	-	-	-	-
0.47 µF	-447	4.5	9.5	10.0	5.7	11.5	10.3	-	-	-	-	-	-	-	-	-
0.68 µF	-468	5.0	10.5	10.3	-	-	-	-	-	-	-	-	-	-	-	-
1.0 µF	-510	5.7	11.5	10.3	-	-	-	-	-	-	-	-	-	-	-	-

Notes

- Further values upon request

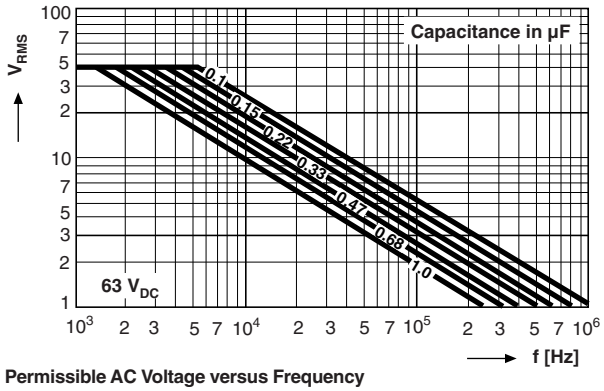
(1) Not suitable for mains applications.
Please refer to X-capacitors in our catalog “RFI Suppression Components”.

RECOMMENDED PACKAGING

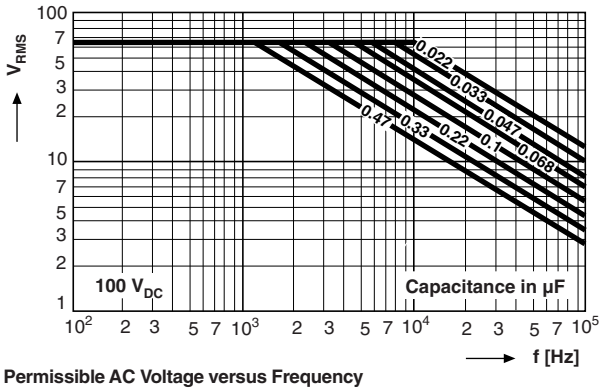
LETTER CODE	TYPE OF PACKAGING	HEIGHT (H) (mm)	REEL DIAMETER (mm)	ORDERING CODE EXAMPLE	PCM 7.5
D	Ammo	16.5	S (1)	MKT 1818-310-255-D	X
G	Ammo	18.5	S (1)	MKT 1818-310-255-G	X
F	Reel	16.5	350	MKT 1818-310-255-F	X
W	Reel	18.5	350	MKT 1818-310-255-W	X
-	Bulk	-	-	MKT 1818-310-255	X

Note

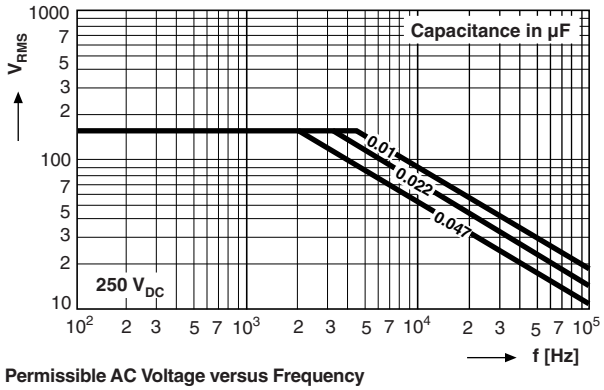
(1) S = box size 55 mm x 210 mm x 340 mm (W x H x L)



Permissible AC Voltage versus Frequency



Permissible AC Voltage versus Frequency



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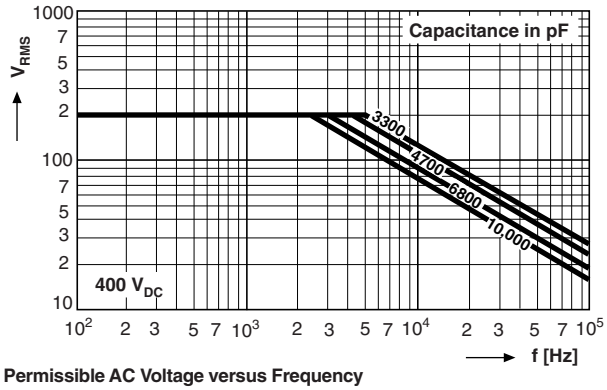

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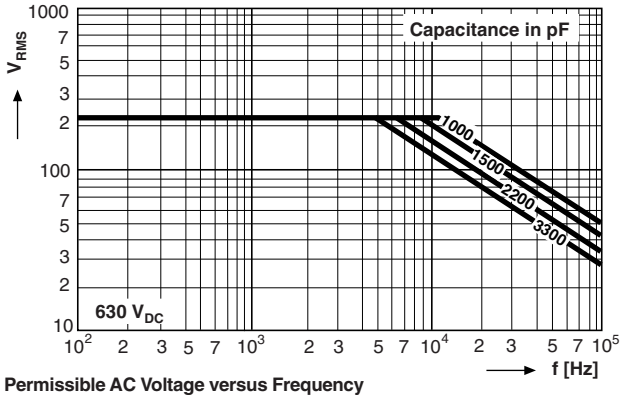

Permissible AC Voltage versus Frequency

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