VISHAY

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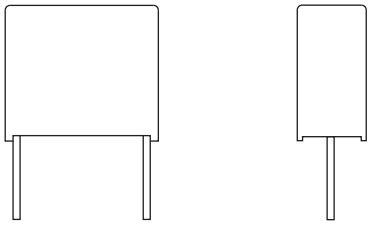
MKP1841

Vishay Roederstein

AC and Pulse Double Metallized Polypropylene Film Capacitors MMKP Radial Potted Type



FEATURES

- 7.5 mm to 37.5 mm lead pitch
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free

RoHS COMPLIANT

HALOGEN FREE

GREEN (5-2008)

APPLICATIONS

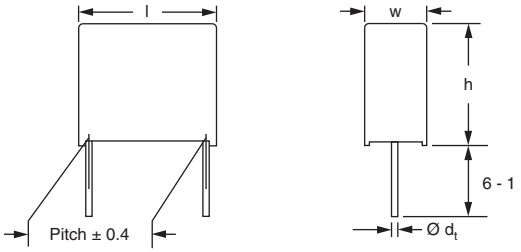
- High voltage, high current and high pulse operations
- Protection circuits in SMPS's, snubber and electronic ballast circuits

QUICK REFERENCE DATA	
Rated DC voltage	250 V_{DC}; 400 V_{DC}; 630 V_{DC}; 1000 V_{DC}; 1600 V_{DC}; 2000 V_{DC}
Rated AC voltage	160 V_{AC}; 220 V_{AC}; 250 V_{AC}; 400 V_{AC}; 600 V_{AC}; 650 V_{AC}; 700 V_{AC}
Capacitance range	470 pF to 6.8 µF
Capacitance tolerance	± 5 %
Climatic testing class acc. to EN 60068-1	55/100/56
Maximum application temperature	100 °C
Reference standards	IEC 60384-16
Dielectric	Polypropylene film
Electrodes	Metallized
Construction	Internal series construction
Encapsulation	Plastic case, epoxy resin sealed, flame retardant, UL-class 94 V-0
Leads	Tinned wire
Marking	C-value; tolerance; rated voltage; manufacturer's type; code for dielectric material; manufacturer location; manufacturer's logo; year and week

Note

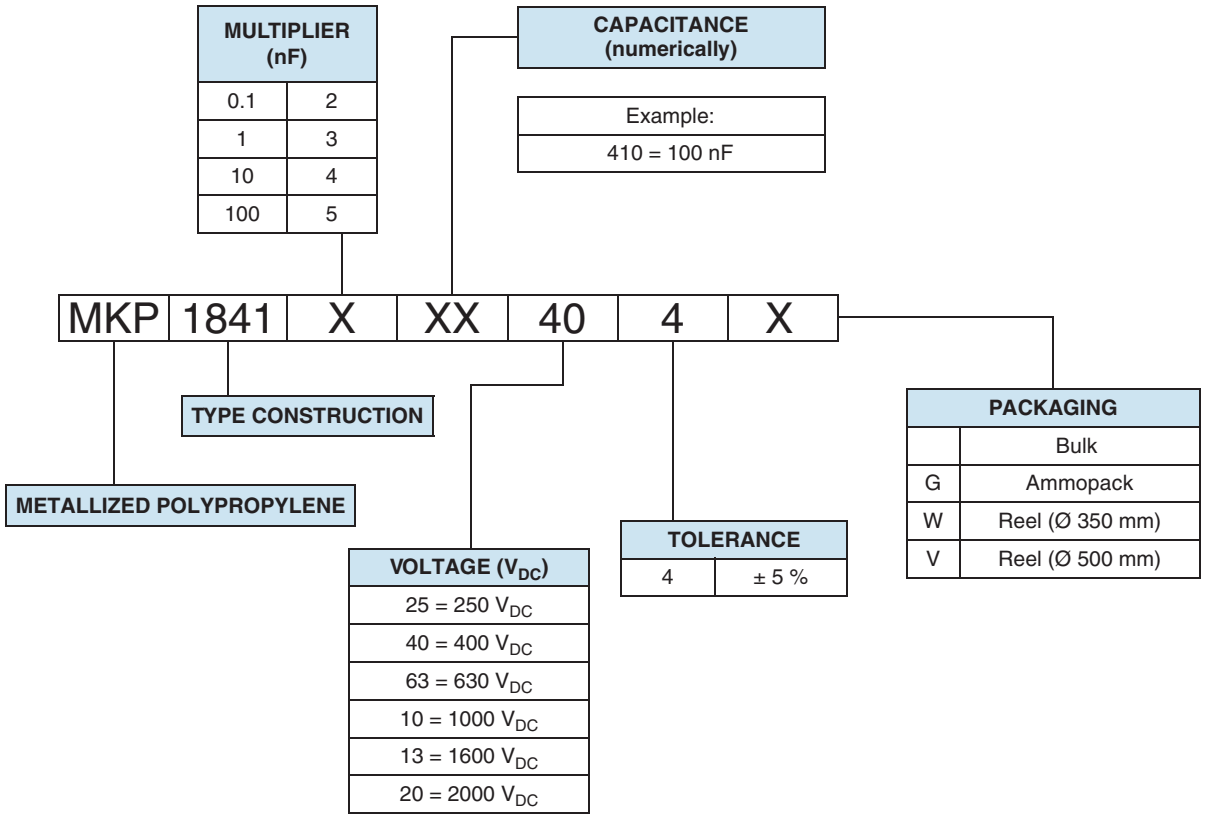
- For more detailed data and test requirements, contact dc-film@vishay.com

DIMENSIONS in millimeters



PITCH	w	Ø d_t
7.5	-	0.5 ± 0.05
10	-	0.6 ± 0.06
15	≤ 6	0.6 ± 0.06
15	> 6	0.8 ± 0.08
22.5 to 27.5	-	0.8 ± 0.08
37.5	< 16.0	0.8 ± 0.08
37.5	≥ 16.0	1.0 ± 0.1

COMPOSITION OF CATALOG NUMBER



Note

- For detailed tape specifications refer to "Packaging Information" www.vishay.com/doc?28139 or end of catalog

SPECIFIC REFERENCE DATA							
DESCRIPTION					**VALUE**		
Tangent of loss angle:					at 1 kHz	at 10 kHz	at 100 kHz
C ≤ 0.1 µF					≤ 5 x 10^{-4}	≤ 10 x 10^{-4}	≤ 15 x 10^{-4}
0.1 µF < C ≤ 1.0 µF					≤ 5 x 10^{-4}	≤ 10 x 10^{-4}	-
C > 1.0 µF					≤ 5 x 10^{-4}	-	-
PITCH (mm)	**MAXIMUM PULSE RISE TIME $(dU/dt)_R$ [V/µs]**						
	160 V_{DC}	**250 V_{DC}**	**400 V_{DC}**	**630 V_{DC}**	**1000 V_{DC}**	**1600 V_{DC}**	**2000 V_{DC}**
7.5	1800	2200	3600	4500	-	-	-
10	820	1140	1840	2280	-	-	-
15	410	560	910	3430	6600	11 100	20 300
22.5	260	320	520	2120	2800	3800	6200
27.5	202	240	400	1524	2000	2680	4200
37.5	140	170	280	980	1280	1690	2600
R between leads, for C ≤ 0.33 µF at 100 V; 1 min						> 100 000 MΩ	
R between leads and case: 100 V; 1 min						> 30 000 MΩ	
Withstanding (DC) voltage between leads and case						2840 V; 1 min	
Withstanding (DC) voltage (cut off current 10 mA) (1); rise time ≤ 1000 V/s						1.6 x U_{RDC}, 1 min	
Maximum application temperature						100 °C	

Note

(1) See "Voltage Proof Test for Metalized Film Capacitors": www.vishay.com/doc?28169

ELECTRICAL DATA

U_{RDC} (V)	CAP. (µF)	CAPACITANCE CODE	VOLTAGE CODE	V_{AC}	DIMENSIONS (w x h x l)	PCM
160	0.010	310	16	100	4.5 x 9.5 x 10.0	7.5
	0.015	315			4.5 x 9.5 x 10.0	7.5
	0.022	322			4.0 x 10.0 x 12.5	10
	0.033	333			4.0 x 10.0 x 12.5	10
	0.047	347			5.0 x 11.0 x 12.5	10
	0.068	368			6.0 x 12.0 x 12.5	10
	0.10	410			5.0 x 11.0 x 17.5	15
	0.15	415			6.0 x 12.0 x 17.5	15
	0.22	422			7.0 x 13.5 x 17.5	15
	0.33	433			8.5 x 15.0 x 17.5	15
	0.47	447			8.5 x 18.0 x 26.0	22.5
	0.68	468			10.0 x 19.5 x 26.0	22.5
	1.0	510			12.0 x 22.0 x 26.0	22.5
	1.5	515			13.0 x 23.0 x 31.5	27.5
	2.2	522			18.0 x 28.0 x 31.5	27.5
	3.3	533			21.0 x 31.0 x 31.0	27.5
	4.7	547			30.0 x 45.0 x 42.0	37.5
250	0.0068	268	25	160	4.0 x 9.0 x 10.0	7.5
	0.010	310			4.5 x 9.5 x 10.0	7.5
	0.015	315			4.5 x 9.5 x 10.0	7.5
	0.022	322			4.0 x 10.0 x 12.5	10
	0.033	333			4.0 x 10.0 x 12.5	10
	0.047	347			5.0 x 11.0 x 12.5	10
	0.068	368			5.0 x 11.0 x 17.5	15
	0.10	410			5.0 x 11.0 x 17.5	15
	0.15	415			6.0 x 12.0 x 17.5	15
	0.22	422			8.5 x 15.0 x 17.5	15
	0.33	433			7.0 x 16.5 x 26.0	22.5
	0.47	447			8.5 x 18.0 x 26.0	22.5
	0.68	468			10.0 x 19.5 x 26.0	22.5
	1.0	510			11.0 x 21.0 x 31.0	27.5
	1.5	515			13.0 x 23.0 x 31.0	27.5
	2.2	522			18.0 x 28.0 x 31.5	27.5
	3.3	533			21.0 x 31.0 x 31.0	27.5
	4.7	547			30.0 x 45.0 x 42.0	37.5
400	0.0047	247	40	220	4.5 x 9.5 x 10.0	7.5
	0.0068	268			5.0 x 10.5 x 10.0	7.5
	0.010	310			4.0 x 10.0 x 12.5	10
	0.015	315			4.0 x 10.0 x 12.5	10
	0.022	322			4.0 x 10.0 x 12.5	10
	0.033	333			5.0 x 11.0 x 17.5	15
	0.047	347			5.0 x 11.0 x 17.5	15
	0.068	368			6.0 x 12.0 x 17.5	15
	0.10	410			7.0 x 13.5 x 17.5	15
	0.15	415			7.0 x 16.5 x 26.0	22.5
	0.22	422			8.5 x 18.0 x 26.0	22.5
	0.33	433			12.0 x 22.0 x 26.0	22.5
	0.47	447			13.0 x 23.0 x 31.0	27.5
	0.68	468			15.0 x 25.0 x 31.5	27.5
	1.0	510			14.5 x 24.5 x 41.5	37.5
	1.5	515			16.0 x 28.5 x 41.5	37.5
	2.2	522			18.5 x 35.5 x 43.0	37.5

ELECTRICAL DATA

U_{RDC} (V)	CAP. (µF)	CAPACITANCE CODE	VOLTAGE CODE	V_{AC}	DIMENSIONS (w x h x l)	PCM
630	0.00047	147	63	250	3.0 x 8.5 x 10.0	7.5
	0.00068	168			3.0 x 8.5 x 10.0	7.5
	0.0010	210			3.0 x 8.5 x 10.0	7.5
	0.0015	215			3.0 x 8.5 x 10.0	7.5
	0.0022	222			3.0 x 8.5 x 10.0	7.5
	0.0033	233			4.0 x 9.0 x 10.0	7.5
630	0.0047	247	63	400	5.0 x 11.0 x 17.5	15
	0.0068	268			5.0 x 11.0 x 17.5	15
	0.010	310			5.0 x 11.0 x 17.5	15
	0.015	315			5.0 x 11.0 x 17.5	15
	0.022	322			6.0 x 12.0 x 17.5	15
	0.033	333			6.0 x 15.5 x 26.0	22.5
	0.047	347			6.0 x 15.5 x 26.0	22.5
	0.068	368			7.0 x 16.5 x 26.0	22.5
	0.10	410			9.0 x 19.0 x 31.0	27.5
	0.15	415			11.0 x 21.0 x 31.0	27.5
	0.22	422			12.5 x 22.5 x 41.5	37.5
	0.33	433			14.5 x 24.5 x 41.5	37.5
	0.47	447			14.5 x 24.5 x 41.5	37.5
	0.68	468			16.0 x 28.5 x 41.5	37.5
1000	0.0022	222	10	600	5.0 x 11.0 x 17.5	15
	0.0033	233			5.0 x 11.0 x 17.5	15
	0.0047	247			6.0 x 12.0 x 17.5	15
	0.0068	268			7.0 x 13.5 x 17.5	15
	0.010	310			6.0 x 15.5 x 26.0	22.5
	0.015	315			7.0 x 16.5 x 26.0	22.5
	0.022	322			8.5 x 18.0 x 26.0	22.5
	0.033	333			10.0 x 19.5 x 26.0	22.5
	0.047	347			11.0 x 21.0 x 31.0	27.5
	0.068	368			13.0 x 23.0 x 31.0	27.5
	0.10	410			15.0 x 25.0 x 31.5	27.5
	0.15	415			12.5 x 22.5 x 41.5	37.5
	0.22	422			12.5 x 22.5 x 41.5	37.5
	0.33	433			14.5 x 24.5 x 41.5	37.5
	0.47	447			16.0 x 28.5 x 41.5	37.5

ELECTRICAL DATA

U_{RDC} (V)	CAP. (µF)	CAPACITANCE CODE	VOLTAGE CODE	V_{AC}	DIMENSIONS (w x h x l)	PCM
1600	0.0010	210	13	650	5.0 x 11.0 x 17.5	15
	0.0015	215			5.0 x 11.0 x 17.5	15
	0.0022	222			5.0 x 11.0 x 17.5	15
	0.0033	233			6.0 x 15.5 x 26.0	22.5
	0.0047	247			6.0 x 15.5 x 26.0	22.5
	0.0068	268			6.0 x 15.5 x 26.0	22.5
	0.010	310			6.0 x 15.5 x 26.0	22.5
	0.015	315			7.0 x 16.5 x 26.0	22.5
	0.022	322			8.5 x 18.0 x 26.0	22.5
	0.033	333			9.0 x 19.0 x 31.0	27.5
	0.047	347			11.0 x 21.0 x 31.0	27.5
	0.068	368			12.5 x 22.5 x 41.5	37.5
	0.10	410			12.5 x 22.5 x 41.5	37.5
	0.15	415			16.0 x 28.5 x 41.5	37.5
	0.22	422			18.0 x 32.5 x 41.5	37.5
2000	0.00047	147	20	700	5.0 x 11.0 x 17.5	15
	0.00068	168			5.0 x 11.0 x 17.5	15
	0.0010	210			6.0 x 15.5 x 26.0	22.5
	0.0015	215			6.0 x 15.5 x 26.0	22.5
	0.0022	222			6.0 x 15.5 x 26.0	22.5
	0.0033	233			6.0 x 15.5 x 26.0	22.5
	0.0047	247			6.0 x 15.5 x 26.0	22.5
	0.0068	268			7.0 x 16.5 x 26.0	22.5
	0.010	310			8.5 x 18.0 x 26.0	22.5
	0.015	315			9.0 x 19.0 x 31.0	27.5
	0.022	322			11.0 x 21.0 x 31.0	27.5
	0.033	333			11.0 x 21.0 x 31.0	27.5
	0.047	347			12.5 x 22.5 x 41.5	37.5
	0.068	368			12.5 x 22.5 x 41.5	37.5
	0.10	410			14.5 x 24.5 x 41.5	37.5

RECOMMENDED PACKAGING

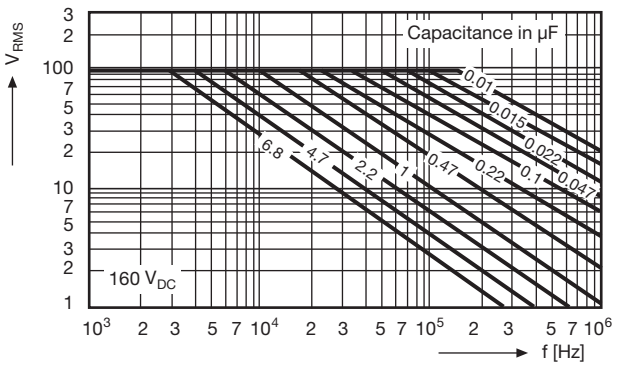
LETTER CODE	TYPE OF PACKAGING	HEIGHT (H) (mm)	REEL DIAMETER (mm)	ORDERING CODE EXAMPLES	PCM 15	PCM 22.5 TO 27.5	PCM 37.5
G	Ammo	18.5	S [1]	MKP1841315635G	X	-	-
W	Reel	18.5	350	MKP1841315635W	X	-	-
V	Reel	18.5	500	MKP1841410105V	X	X	-
G	Ammo	18.5	L [2]	MKP1841410105G	-	X	-
-	Bulk	-	-	MKP1841447105	X	X	X

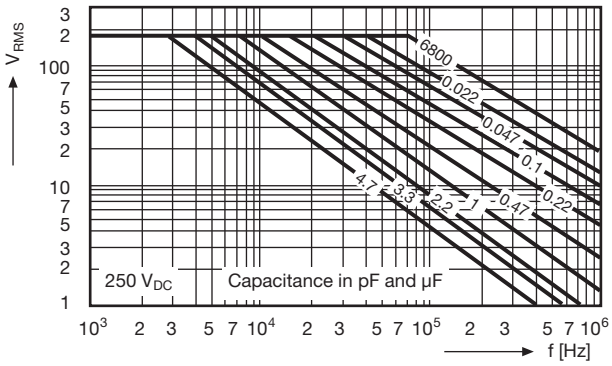
Notes

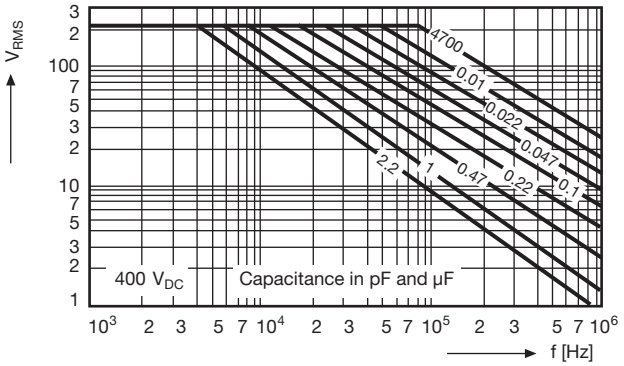
[1] S = box size 55 mm x 210 mm x 340 mm (W x H x L)

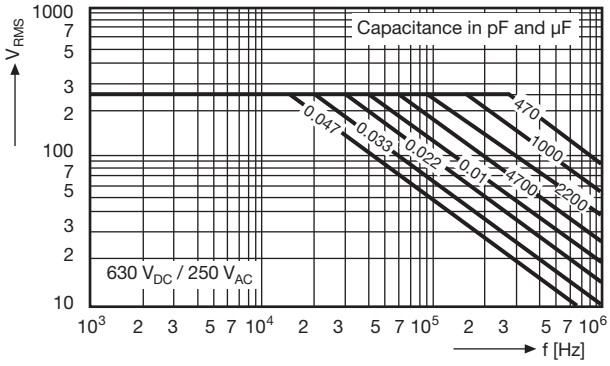
[2] L = box size 60 mm x 510 mm x 360 mm (W x H x L)

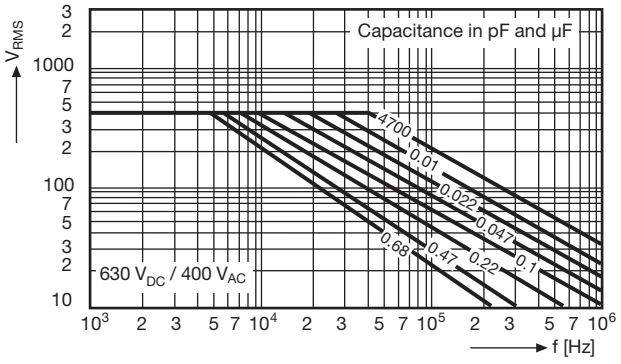
PERMISSIBLE AC VOLTAGE VS. FREQUENCY

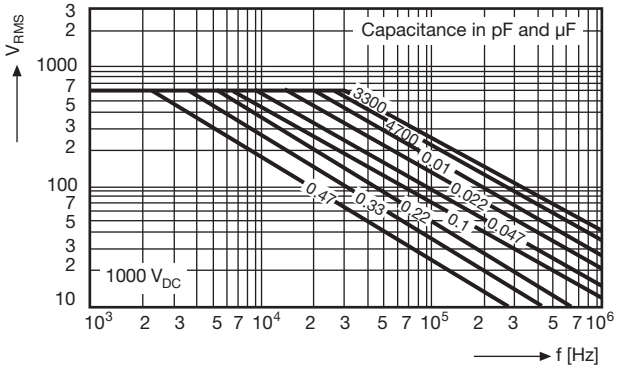


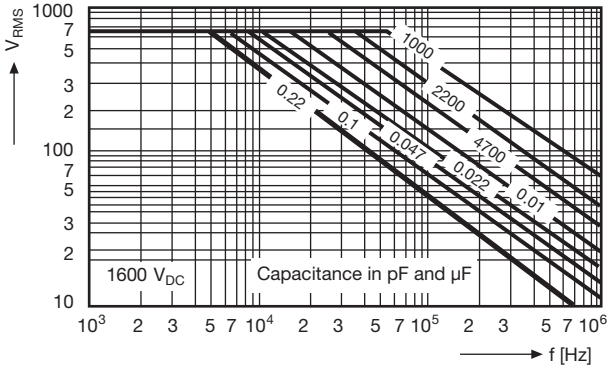


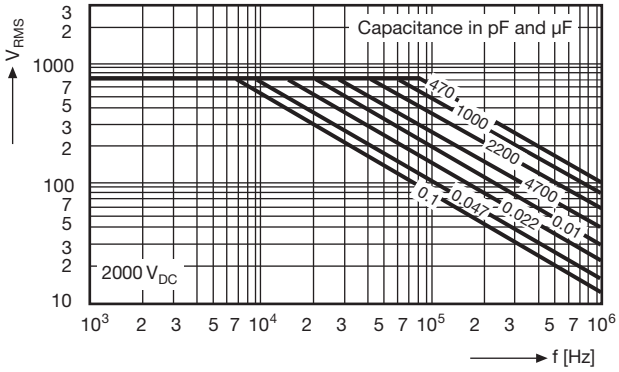












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