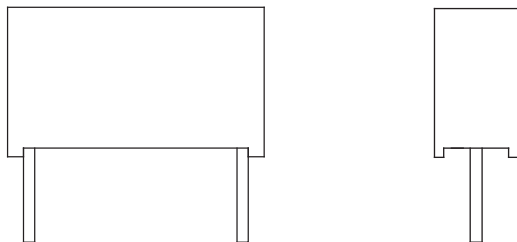




Double Metallized Polypropylene Film Capacitor Radial AC and Pulse Capacitor



FEATURES

- Material categorization:
for definitions of compliance please see
www.vishay.com/doc?99912

APPLICATIONS

High voltage, high current and high pulse operations, deflection circuits in TV sets (S-correction and fly-back tuning). Protection circuits in SMPS's. Snubber and electronic ballast circuits. Input and output filtering in SPS designs, storage, timing and integrating circuits.



QUICK REFERENCE DATA

Capacitance range	1000 pF to 0.68 μ F		
Capacitance tolerances	$\pm 20\%$ (M), $\pm 10\%$ (K), $\pm 5\%$ (J)		
Climatic testing class according to IEC 60068	55/100/56		
Dielectric	Polypropylene film		
Electrodes	Vacuum deposited aluminum		
Construction	Extended double-sided metallized polyester film, internal series connection, single-sided metallized polypropylene film (refer to general information)		
Coating	Flame retardant plastic case (UL-class 94 V-0), blue, epoxy resin sealed		
Leads	Tinned wire		
Marking	Manufacturer's logo / type / C-value / rated voltage / tolerance / date of manufacture		
Operating temperature range	$-55\text{ }^{\circ}\text{C}$ to $+100\text{ }^{\circ}\text{C}$		
Rated DC voltages (U_R)	630 V_{DC} , 1000 V_{DC} , 1600 V_{DC} , 2000 V_{DC}		
Permissible AC voltages (RMS) up to 60 Hz	400 V_{AC} , 600 V_{AC} , 650 V_{AC} , 700 V_{AC}		
Test voltage (electrode/electrode)	$1.6 \times U_R$ for 2 s		
Insulation resistance	Measured at 100 V_{DC} after one minute For $C \leq 0.33\text{ }\mu\text{F}$: 100 000 M Ω minimum value		
Time constant	Measured at 100 V_{DC} after one minute For $C > 0.33\text{ }\mu\text{F}$: 30 000 s minimum value		
Temperature coefficient	$-250 \times 10^{-6}/^{\circ}\text{C}$ (typical value)		
Capacitance drift	Up to $+40\text{ }^{\circ}\text{C}$, $\pm 0.5\%$ for a period of two years		
Derating for DC and AC category voltage U_C	At $+85\text{ }^{\circ}\text{C}$: $U_C = 1.0 U_R$ At $+100\text{ }^{\circ}\text{C}$: $U_C = 0.7 U_R$		
Self inductance	$\sim 6\text{ nH}$ measured with 2 mm long leads		
Pull test on leads	$\geq 30\text{ N}$ in direction of leads according to IEC 60068-2-21		
Reliability	Operational life $> 300\text{ 000 h}$ Failure rate $< 5\text{ FIT}$ ($40\text{ }^{\circ}\text{C}$ and $0.5 \times U_R$)		
Dissipation factor $\tan \delta$	MEASURED AT	$C \leq 0.1\text{ }\mu\text{F}$	$0.1\text{ }\mu\text{F} < C \leq 1.0\text{ }\mu\text{F}$
	1 kHz	0.3×10^{-3}	0.3×10^{-3}
	10 kHz	0.4×10^{-3}	0.4×10^{-3}
	100 kHz	1.5×10^{-3}	-
	Maximum values		

Note

- 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/ μ s)			
	630 V_{DC}	1000 V_{DC}	1600 V_{DC}	2000 V_{DC}
15	3430	6600	11 100	-
22.5	2120	2800	3800	6200
27.5	1524	2000	2680	4200
37.5	980	1280	1690	2600

Note

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



DIMENSIONS in millimeters	
W	Ø d
< 16.0	0.8
≥ 16.0	1.0

ELECTRICAL DATA						
U_{RDC} (V)	CAP. (µF)	CAPACITANCE CODE	VOLTAGE CODE	V_{AC}	DIMENSIONS w x h x l (mm)	PCM (mm)
630	0.0068	-268	63	400	5.5 x 10.5 x 18.0	15
	0.010	-310			5.5 x 10.5 x 18.0	15
	0.015	-315			6.5 x 12.5 x 18.0	15
	0.022	-322			7.5 x 13.5 x 18.0	15
	0.033	-333			8.5 x 14.5 x 18.0	15
	0.047	-347			7.5 x 15.5 x 26.5	22.5
	0.068	-368			8.5 x 16.5 x 26.5	22.5
	0.10	-410			10.5 x 18.5 x 26.5	22.5
	0.15	-415			11.5 x 20.5 x 31.5	27.5
	0.22	-422			13.5 x 23.5 x 31.5	27.5
	0.33	-433			15.0 x 24.5 x 31.5	27.5
	0.47	-447			14.5 x 24.5 x 41.5	37.5
	0.68	-468			18.0 x 32.5 x 41.5	37.5
	1000	0.0033			-233	10
0.0047		-247	5.5 x 10.5 x 18.0	15		
0.0068		-268	6.5 x 12.5 x 18.0	15		
0.010		-310	6.5 x 14.5 x 26.5	22.5		
0.015		-315	6.5 x 14.5 x 26.5	22.5		
0.022		-322	6.5 x 14.5 x 26.5	22.5		
0.033		-333	7.5 x 15.5 x 26.5	22.5		
0.047		-347	10.5 x 18.5 x 26.5	22.5		
0.068		-368	11.0 x 21.0 x 26.5	22.5		
0.10		-410	11.5 x 20.5 x 31.5	27.5		
0.15		-415	13.5 x 23.5 x 31.5	27.5		
0.22		-422	16.5 x 29.5 x 31.5	27.5		



ELECTRICAL DATA						
U_{RDC} (V)	CAP. (μ F)	CAPACITANCE CODE	VOLTAGE CODE	V_{AC}	DIMENSIONS w x h x l (mm)	PCM (mm)
1600	0.0010	-210	13	650	5.5 x 10.5 x 18.0	15
	0.0015	-215			5.5 x 10.5 x 18.0	15
	0.0022	-222			5.5 x 10.5 x 18.0	15
	0.0033	-233			6.5 x 12.5 x 18.0	15
	0.0047	-247			7.5 x 13.5 x 18.0	15
	0.0068	-268			8.5 x 14.5 x 18.0	15
	0.010	-310			6.5 x 14.5 x 26.5	22.5
	0.015	-315			7.5 x 15.5 x 26.5	22.5
	0.022	-322			8.5 x 16.5 x 26.5	22.5
	0.033	-333			10.5 x 18.5 x 26.5	22.5
	0.047	-347			11.5 x 20.5 x 31.5	27.5
	0.068	-368			11.5 x 20.5 x 31.5	27.5
	0.10	-410			15.0 x 24.5 x 31.5	27.5
	0.15	-415			14.5 x 24.5 x 41.5	37.5
0.22	-422	16.0 x 28.5 x 41.5	37.5			
2000	0.0010	-210	20	700	6.5 x 14.5 x 26.5	22.5
	0.0015	-215			6.5 x 14.5 x 26.5	22.5
	0.0022	-222			6.5 x 14.5 x 26.5	22.5
	0.0033	-233			6.5 x 14.5 x 26.5	22.5
	0.0047	-247			6.5 x 14.5 x 26.5	22.5
	0.0068	-268			7.5 x 15.5 x 26.5	22.5
	0.010	-310			8.5 x 16.5 x 26.5	22.5
	0.015	-315			10.5 x 18.5 x 26.5	22.5
	0.022	-322			11.5 x 20.5 x 31.5	27.5
	0.033	-333			13.5 x 23.5 x 31.5	27.5
	0.047	-347			15.0 x 24.5 x 31.5	27.5
	0.068	-368			16.5 x 29.5 x 31.5	27.5
	0.10	-410			16.0 x 28.5 x 41.5	37.5

Note

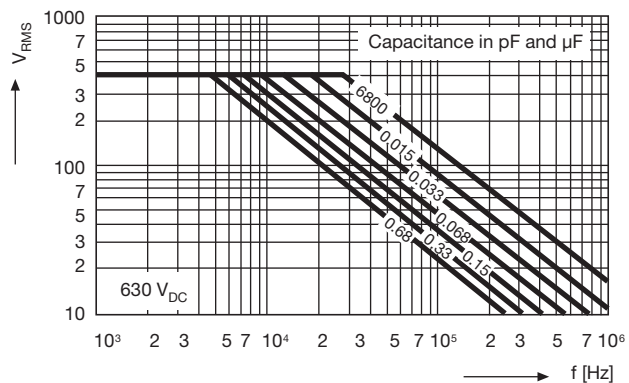
(1) Further C-values upon request.

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
D	Ammo	16.5	S ⁽¹⁾	MKP1846-310/635-D	X	-	-
G	Ammo	18.5	S ⁽¹⁾	MKP1846-310/635-G	X	-	-
F	Reel	16.5	350	MKP1846-310/635-F	X	-	-
W	Reel	18.5	350	MKP1846-310/635-W	X	-	-
V	Reel	18.5	500	MKP1846-410/105-V	X	X	-
G	Ammo	18.5	L ⁽¹⁾	MKP1846-410/105-G	-	X	-
-	Bulk	-	-	MKP1846-422-135	X	X	X

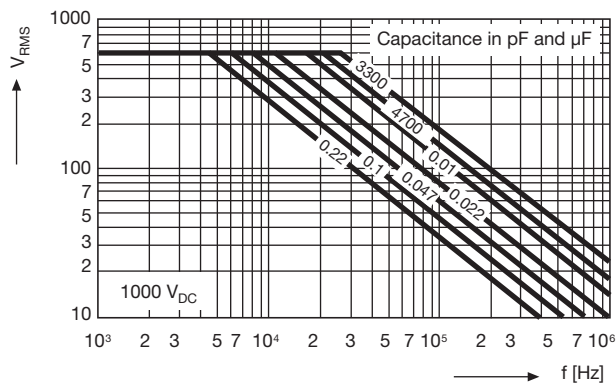
Note

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

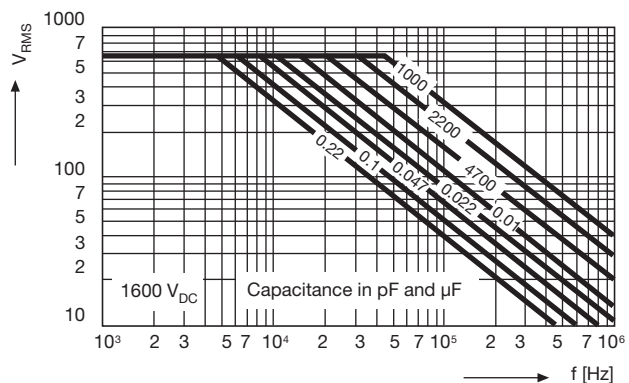
L = box size 60 mm x 360 mm x 510 mm (W x H x L)



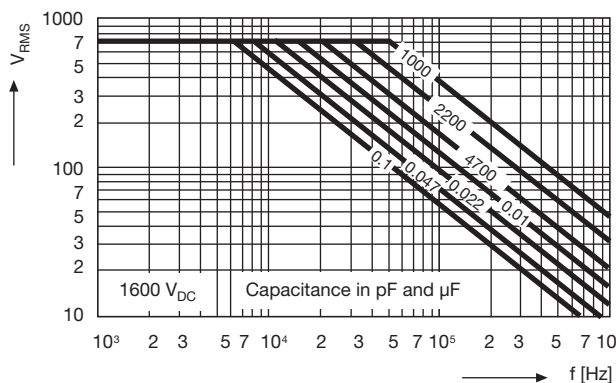
Permissible AC Voltage vs. Frequency



Permissible AC Voltage vs. Frequency



Permissible AC Voltage vs. Frequency



Permissible AC Voltage vs. Frequency



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