

PMC

Metallized Polypropylene Film Capacitors for Switching Circuits



- Switching capacitor for industrial controls
- Motor Speed Controls
- SMPS
- Resonant circuit
- Induction Heaters
- High frequency
- High current

Operating Temperature Range		-40°C to +85°C				
Capacitance Tolerance		+/- 10% at 1kHz, 20°C				
Rated Voltage	VDC	250	330	400	600	700
	SVDC	400	500	600	800	1000
	VAC	160	200	250	330	400
Dissipation Factor (max) at 20°C.		Freq (kHz)	C≤ 5μF	5μF<C≤25μF	C>25μF	
		1	.05%	.08%	.1%	
Insulation Resistance @20°C(<70% RH) for 1 minute at 100VDC		>30,000MΩ x μF not to exceed 30,000MΩ				
Peak Current - Ipeak (Non-repetitive)		Ipeak = 1.5°C*dv/dt Maximum				
Dielectric Strength		200% of rated VDC for 10 seconds at 20°C between leads, 3KV at 60Hz for 60 seconds between leads and case.				
Self inductance		<1nH/mm along capacitor pitch.				
Capacitance drift		<1.0% up to 40°C after 2 years				
Temperature Coefficient		-200ppm/°C +/- 100ppm/°C				
Life Expectancy Capacitance change (typical) -5%		≥ 30,000 hours @VAC at 70°C ≥100,000 hours @ WVDC at 70°C				
Failure rate		300/billion component hours				
Dielectric		Polypropylene				
Electrodes		Vacuum deposited metal layers				
Construction		Metallized film				
Leads		Copper leads.				
Coating		Solvent resistant plastic box (UL 94V-1) with epoxy end fills (UL 94V-0)				



ILLINOIS CAPACITOR, INC.

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PMC**+85°C Metallized
Polypropylene Film
Capacitors****PHYSICAL DIMENSIONS**

μF	WVDC (VAC)	250 (160)	330 (200)	400 (250)	600 (330)	700 (400)
1.5						42.5x27.5x24.5
2						42.5x27.5x24.5
2.5					42.5x27.5x24.5	42.5x35.5x33.5
3					42.5x27.5x24.5	42.5x35.5x33.5
3.3					42.5x27.5x24.5	42.5x35.5x33.5
4				42.5x27.5x24.5	42.5x35.5x33.5	42.5x45x33
4.7					42.5x35.5x33.5	42.5x45x33
5				42.5x27.5x24.5	42.5x35.5x33.5	42.5x45x33
6.8		42.5x27.5x24.5		42.5x35.5x33.5	42.5x45x33	57.5x45x30
8						57.5x50x35
9					42.5x45x33	57.5x50x35
10		42.5x27.5x24.5		42.5x35.5x33.5	57.5x45x30	
12.5				42.5x45x33	57.5x50x35	
15		42.5x35.5x33.5	42.5x35.5x33.5	42.5x45x33	57.5x50x35	
20		42.5x35.5x33.5	42.5x45x33	57.5x45x30		
22		42.5x35.5x33.5	42.5x45x33	57.5x50x35		
25		42.5x35.5x33.5	57.5x45x30	57.5x50x35		
30		42.5x45x33	57.5x45x30			
33		42.5x45x33				
35		42.5x45x33	57.5x50x35			
40			57.5x50x35			
50		57.5x50x35				
60		57.5x50x35				

Convert to inches, divide by 25.4

LxHxT (mm)

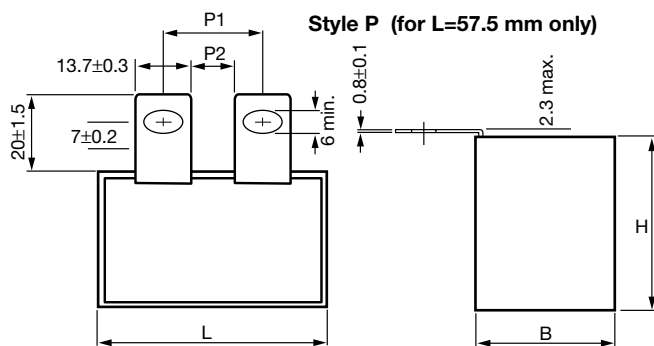
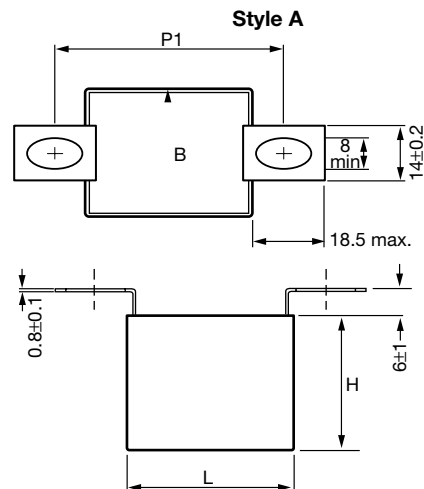
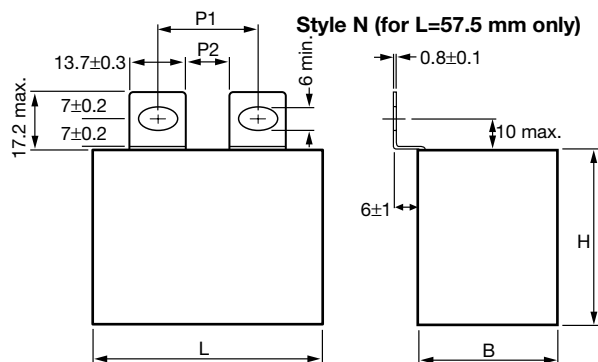
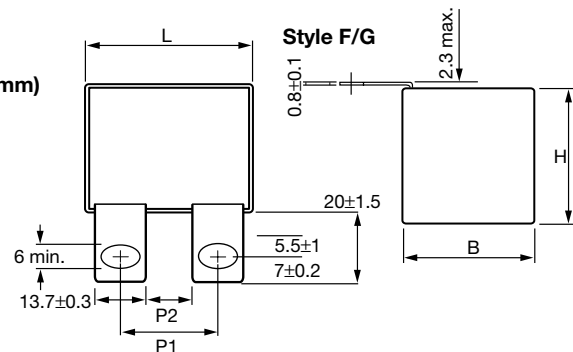
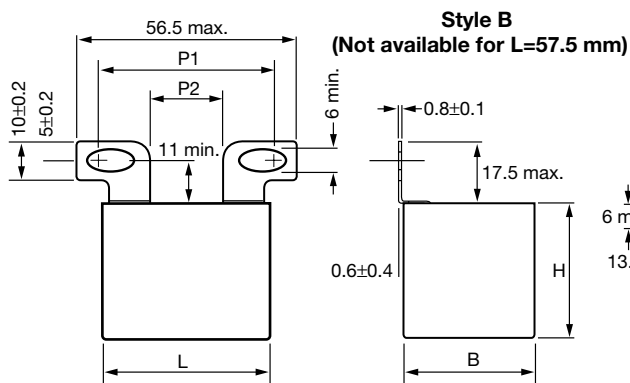
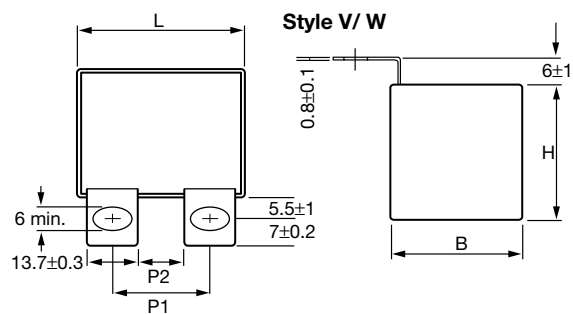
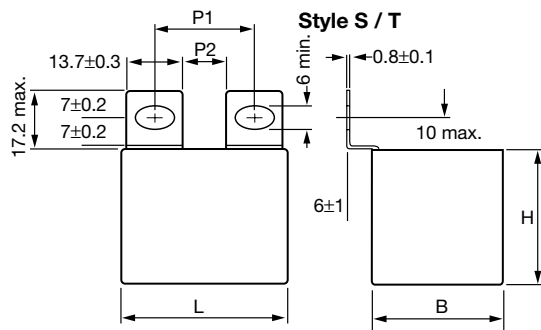
STANDARD PART LISTING

Capacitance (μF)	WVDC	IC PART NUMBER	dv/dt (V/ μs)	Maximum RMS Ripple Current @100kHz, +70°C (A)	Typical ESR m Ω 100kHz, +25°C	Dimensions LxHxT (mm)
1.5	700	155PMC700K#P2	70	12	5.3	42.5x27.5x24.5
2	700	205PMC700K#P2	70	16	3.8	42.5x27.5x24.5
2.5	600	255PMC600K#P2	55	16	3.8	42.5x27.5x24.5
2.5	700	255PMC700K#P1	70	20.5	3.3	42.5x35.5x33.5
3	600	305PMC600K#P2	55	17	3.4	42.5x27.5x24.5
3	700	305PMC700K#P1	70	21.5	3	42.5x35.5x33.5
3.3	600	335PMC600K#	55	17	3.3	42.5x27.5x24.5
3.3	700	335PMC700K#	70	22	2.9	42.5x35.5x33.5
4	400	405PMC400K#P2	40	17	3.2	42.5x27.5x24.5
4	600	405PMC600K#P1	55	23	2.6	42.5x35.5x33.5
4	700	405PMC700K#P0	70	25.5	2.5	42.5x45x33
4.7	600	475PMC600K#	55	24	2.4	42.5x35.5x33.5
4.7	700	475PMC700K#	70	27	2.2	42.5x45x33
5	400	505PMC400K#P2	40	18.5	2.8	42.5x27.5x24.5
5	600	505PMC600K#P1	55	24	2.4	42.5x35.5x33.5
5	700	505PMC700K#P0	70	27	2.2	42.5x45x33
6.8	330	685PMC330K#	30	18.5	2.8	42.5x27.5x24.5
6.8	400	685PMC400K#P1	40	23.5	2.4	42.5x35.5x33.5
6.8	600	685PMC600K#P0	55	27.5	2.1	42.5x45x33
8	700	805PMC700K#	40	25.5	3.5	57.5x50x35
9	600	905PMC600K#P0	55	30	1.8	42.5x45x33
9	700	905PMC700K#	40	26.5	3.2	57.5x50x35
10	250	106PMC250K#P2	25	19	2.6	42.5x27.5x24.5
10	400	106PMC400K#P1	40	25.5	2	42.5x35.5x33.5

Capacitance (μF)	WVDC	IC PART NUMBER	dv/dt (V/ μs)	Maximum RMS Ripple Current @100kHz, +70°C (A)	Typical ESR m Ω 100kHz, +25°C	Dimensions LxHxT (mm)
10	600	106PMC600K#	30	23.5	3.8	57.5x45x30
12.5	400	126PMC400K#P0	40	29	1.9	42.5x45x33
12.5	600	126PMC600K#	30	26	3.3	57.5x50x35
15	250	156PMC250K#P1	25	24.5	2.2	42.5x35.5x33.5
15	330	156PMC330K#	30	26.5	2	42.5x35.5x33.5
15	400	156PMC400K#P0	40	30	1.8	42.5x45x33
15	600	156PMC600K#	30	27.5	3	57.5x50x35
20	250	206PMC250K#P1	25	27	1.9	42.5x35.5x33.5
20	330	206PMC330K#	30	29.5	1.8	42.5x45x33
20	400	206PMC400K#	20	26.5	2.8	57.5x45x30
22	250	226PMC250K#	25	27.5	1.9	42.5x35.5x33.5
22	330	226PMC330K#	30	30.5	1.7	42.5x45x33
22	400	226PMC400K#	20	29	2.7	57.5x50x35
25	250	256PMC250K#P1	25	28	1.8	42.5x35.5x33.5
25	330	256PMC330K#	17	26.5	2.7	57.5x45x30
25	400	256PMC400K#	20	30	2.5	57.5x50x35
30	250	306PMC250K#P0	25	30	1.7	42.5x45x33
30	330	306PMC330K#	17	27.5	2.6	57.5x45x30
33	250	336PMC250K#	25	31	1.7	42.5x45x33
35	250	356PMC250K#P0	25	31	1.7	42.5x45x33
35	330	356PMC330K#	17	31	2.3	57.5x50x35
40	330	406PMC330K#	17	32.5	2.1	57.5x50x35
50	250	506PMC250K#	15	33	2.1	57.5x50x35
60	250	606PMC250K#	15	34.5	1.9	57.5x50x35

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STYLE DRAWINGS



Dimensions in mm

Fixing pitch and distance between lugs (mm)			
Lugs	L	P1	P2
S, V, F	42.5	23+28 (M6)	11
	57.5	37+42 (M6)	24
T, W, G	42.5	20+25 (M6)	8
	57.5	34+39 (M6)	21
N, P	42.5	Not available	
	57.5	23+28 (M6)	11
A	42.5	51+64 (M8)	-
	57.5	65+78 (M8)	-
B	42.5	32+45 (M6)	17
	57.5	Not available	