

MHB

Radial Leaded Polypropylene Film Capacitors with Double Sided Metallized Electrodes



APPLICATIONS

- Motor Speed Control
- Switching Power Supplies
- Induction Heaters
- Resonant Circuits

FEATURES

- High Current
- High Voltage
- Multiple Lead Styles (2,4, lugs)
- Small Size

SPECIFICATIONS

Operating Temperature Range		-40°C to +85°C (+100°C observing voltage and current de-rating)				
Capacitance Tolerance		±10% at 1kHz, 25°C ±5% optional				
Surge/AC Voltage	WVDC	370	500	600	700	800
	SVDC	470	625	750	875	1200
	VAC	160	250	330	380	380
For T>+85°C the rated voltage must be de-rated by 1.25%/°C						
Dissipation Factor (max) at 1kHz,25°C	Freq (kHz)	C 5µF	5µF<C 30µF	C>30µF		
	1	.05%	.08%	.1%		
Insulation Resistance @20°C(<70% RH) for 1 minute at 100VDC applied		>30,000M x µF not to exceed 30,000M				
Self inductance		<1nH/mm of body length and lead wire length.				
Dielectric Strength	Terminal to Terminal			Terminal to Case		
	160% of VDC applied for 10 seconds and 25°C			3 KVAC applied for 60 seconds at 25°C		
Life Expectancy		>100,000 hours for WVDC,30000 hours for VAC at 70°C				
Failure quota		300/1x10 ⁹ component hours				
Long term Stability		<1% after 2 years at standard enviromental conditions				
Construction		Double metallized film with polypropylene film and internal series connections				
Coating		Flame retardant plastic box with epoxy end fill (UL94V-0)				
Lead terminations		Lead free tinned copper leads (RoHS compliant)				

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PHYSICAL DIMENSIONS

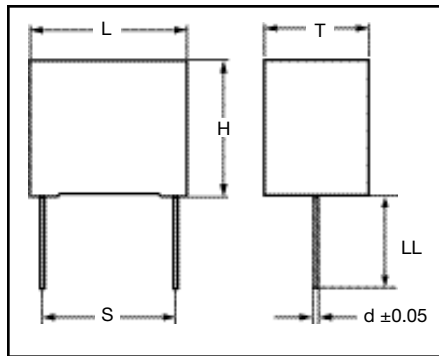
2 Lead Construction

WVDC (VAC) μF	370 (200)	500 (250)	600 (330)	700 (380)	800 (400)
1				32x22x13	32x24.5x15
1.5			32x22x13	32x24.5x15	32x33x18
2		32x22x13	32x24.5x15	32x33x18	
2.2		32x22x13	32x24.5x15		32x33x18
2.5			32x28x14		42.5x28x17
3				32x33x18 42.5x28x17	32x37x22
3.3		32x24.5x15	32x33x18		42.5x30x22
4	32x22x13	32x33x18	32x33x18 42.5x28x17	32x37x22 42.5x30x22	42.5x33.5x22
5	32x28x14	32x33x18	32x37x22 42.5x30x22	42.5x33.5x22	42.5x37x28
6.8	32x33x18	32x37x22	42.5x33.5x22		
7.5		42.5x30x22			
8				42.5x37x28	42.5x45x30
10	32x37x22 42.5x28x17	42.5x33.5x22	42.5x37x28	42.5x45x30	57.5x45x30
12.5					57.5x45x30
15	42.5x30x22	42.5x37x28	42.5x45x30	57.5x45x30	57.5x50x35
20			57.5x45x30	57.5x50x35	
22	42.5x37x28	42.5x45x30			
25		57.5x45x30	57.5x50x35		
30		457.5x45x30			
33	42.5x45x30				
40	57.5x45x30	57.5x50x35			
50	57.5x50x30				
60	57.5x50x35				

Convert to inches, divide by 25.4

LxHxT mm

L	32	42.5	57.5
S	27.5	37.5	52.5
d	1.0,1.2	1.2	1.2



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STANDARD PARTS LISTING

2 Lead Construction

Capacitance (µF)	WVDC	IC [®] PART NUMBER	dv/dt (V/µs)	Maximum RMS Ripple Current (A) 100kHz, +70°C	Typical ESR m 100kHz, +25°C	L x H x T (mm)
1	700	105MHBA06K2H	110	15.5	5.5	32x22x13
1	800	105MHBA01K2H	120	13.8	6.5	32x24.5x15
1.5	600	155MHBA02K2H	90	13	6	32x22x13
1.5	700	155MHBA06K2H	110	12.5	6.5	32x24.5x15
1.5	800	155MHBA01K2H	120	11.1	8.5	32x33x18
2	500	205MHBA03K2H	70	14.4	6	32x22x13
2	600	205MHBA02K2H	90	13	7	32x24.5x15
2	700	205MHBA06K2H	110	10.6	7.5	32x28x14
2.2	500	225MHBA03K2H	70	13.6	6	32x22x13
2.2	600	225MHBA02K2H	90	10.6	7	32x24.5x15
2.2	800	225MHBA01K2H	120	9.1	9.5	32x33x18
2.5	600	255MHBA02K2H	90	10.1	8	32x28x14
2.5	800	255MHBA01K2J	82.5	9.8	9	42.5x28x17
3	700	305MHBA06K2H	110	8.6	10	32x33x18
3	700	305MHBA06K2J	75	9.9	9	42.5x28x17
3	800	305MHBA01K2H	120	7.8	12	32x37x22
3.3	500	335MHBA03K2H	70	11	7	32x24.5x15
3.3	600	335MHBA02K2H	90	8.7	10	32x33x18
3.3	800	335MHBA01K2J	82.5	8.3	11	42.5x30x22
4	370	405MHBA04K2H	55	11.2	6.5	32x22x13
4	500	405MHBA03K2H	70	9.9	8.5	32x33x18
4	600	405MHBA02K2H	90	7	11	32x33x18
4	600	405MHBA02K2J	60	8.9	9.5	42.5x28x17
4	700	405MHBA06K2H	110	7.4	12	32x37x22
4	700	405MHBA06K2J	75	8.5	10.5	42.5x30x22
4	800	405MHBA01K2J	82.5	7.3	12	42.5x33.5x22
5	370	505MHBA04K2H	55	9.9	7.5	32x28x14
5	500	505MHBA03K2H	70	8.7	9.5	32x33x18
5	600	505MHBA02K2H	90	7	12	32x37x22
5	600	505MHBA02K2J	60	7.3	11.5	42.5x30x22
5	700	505MHBA06K2J	75	7.3	12	42.5x33.5x22

Capacitance (µF)	WVDC	IC [®] PART NUMBER	dv/dt (V/µs)	Maximum RMS Ripple Current (A) 100kHz, +70°C	Typical ESR m 100kHz, +25°C	L x H x T (mm)
5	800	505MHBA01K2J	82.5	6.5	14	42.5x37x28
6.8	370	685MHBA04K2H	55	8.3	10.5	32x33x18
6.8	500	685MHBA03K2H	70	7.7	12	32x37x22
6.8	600	685MHBA02K2J	60	6.4	12.5	42.5x33.5x22
7.5	500	755MHBA03K2J	47.5	8.3	10	42.5x30x22
8	700	805MHBA06K2J	75	5.8	14	42.5x37x28
8	800	805MHBA01K2J	82.5	4.7	14	42.5x45x30
10	370	106MHBA04K2H	55	6	13	32x37x22
10	370	106MHBA04K2J	37.5	6.9	10.5	42.5x28x17
10	500	106MHBA03K2J	47.5	6.7	12	42.5x33.5x22
10	600	106MHBA02K2J	60	5.4	14	42.5x37x28
10	700	106MHBA06K2J	75	5.3	14	42.5x45x30
10	800	106MHBA01K2R	55	5.9	14	57.5x45x30
12.5	800	126MHBA01K2R	55	5.4	14	57.5x45x30
15	370	156MHBA04K2J	37.5	5.7	12.5	42.5x30x22
15	500	156MHBA03K2J	47.5	5.4	14	42.5x37x28
15	600	156MHBA02K2J	60	4.4	14	42.5x45x30
15	700	156MHBA06K2R	50	5.4	14	57.5x45x30
15	800	156MHBA01K2R	55	5	14	57.5x50x35
20	600	206MHBA02K2R	40	4.7	14	57.5x45x30
20	700	206MHBA06K2R	50	4.7	14	57.5x50x35
22	370	226MHBA04K2J	37.5	4.7	14	42.5x37x28
22	500	226MHBA03K2J	47.5	4.5	14	42.5x45x30
25	500	256MHBA03K2R	32.5	5	14	57.5x45x30
25	600	256MHBA02K2R	40	4.2	14	57.5x50x35
30	500	306MHBA03K2R	32.5	4.5	14	57.5x45x30
33	370	336MHBA04K2J	37.5	4	14	42.5x45x30
40	370	406MHBA04K2R	25	4.5	14	57.5x45x30
40	500	406MHBA03K2R	32.5	3.9	14	57.5x50x35
50	370	506MHBA04K2R	25	3.9	14	57.5x50x30
60	370	606MHBA04K2R	25	3.6	14	57.5x50x35



ILLINOIS CAPACITOR, INC.

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PHYSICAL DIMENSION

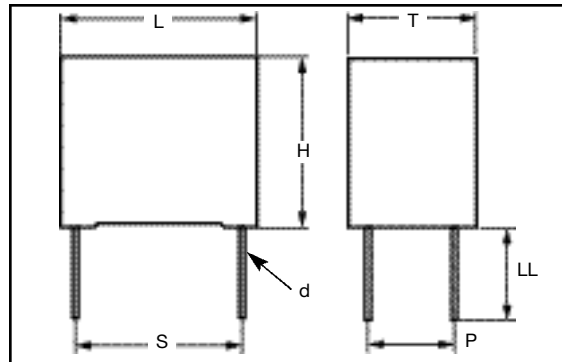
4 Lead Construction

WVDC (VAC) μF	370 (160)	500 (250)	600 (330)	700 (380)	800 (400)
3				32x33x18	32x37x22
3.3			32x33x18		
4			32x33x18	32x37x22	
5		32x33x18	32x37x22		42.5x37x28
6.8	32x33x18	32x37x22			
8				42.5x37x28	42.5x45x30
10	32x37x22	42.5x33.5x22	42.5x37x28	42.5x45x30	57.5x45x30
12.5					57.5x45x30
15	42.5x30x22 42.5x45x30	42.5x37x28		57.5x45x30	57.5x50x35
20			57.5x45x30	57.5x50x35	
22	42.5x37x28	42.5x45x30			
25		57.5x45x30	57.5x50x35		
30		57.5x45x30			
33	42.5x45x30				
40	57.5x45x30	57.5x50x35			
50	57.5x50x35				
60	57.5x50x35				

Convert to inches, divide by 25.4

LxHxT mm

4 Lead Construction



L	32	32	32	42.5	42.5	57.5
S	27.5	27.5	27.5	37.5	37.5	52.5
H	<22	22<H<28	28	37	>37	ALL
P	10.2	52.5	10.2	10.2	20.3	20.3
d	0.8	1.2	1.2	1.2	1.2	1.2

MHBRadial Leaded Polypropylene
Film Capacitors
with Double Sided
Metallized Electrodes**STANDARD PARTS LISTING****4 Lead Construction**

Capacitance (μF)	WVDC	ic [®] PART NUMBER	dv/dt (V/μs)	Maximum RMS Ripple Current (A) 100kHz, +70°C	Typical ESR m 100kHz, +25°C	L x H x T (mm)
3	700	305MHBA06K4H	110	7.9	11.5	32x33x18
3	800	305MHBA01K4H	120	7.1	13.5	32x37x22
3.3	600	335MHBA02K4H	90	8	11.5	32x33x18
4	600	405MHBA02K4H	90	7	12.5	32x33x18
4	700	405MHBA06K4H	110	6.7	13.5	32x37x22
5	500	505MHBA03K4H	70	8	11	32x33x18
5	600	505MHBA02K4H	90	6.3	13.5	32x37x22
5	800	505MHBA01K4J	82.5	5.9	15.5	42.5x37x28
6.8	370	685MHBA04K4H	55	7.6	12	32x33x18
6.8	500	685MHBA03K4H	70	7	13.5	32x37x22
8	700	805MHBA06K4J	75	5.2	16	42.5x37x28
8	800	805MHBA01K4J	82.5	4.1	19.5	42.5x45x30
10	370	106MHBA04K4H	55	5.3	15	32x37x22
10	500	106MHBA03K4J	47.5	6.1	13.5	42.5x33.5x22
10	600	106MHBA02K4J	60	4.8	16.5	42.5x37x28
10	700	106MHBA06K4J	75	4.7	18.5	42.5x45x30
10	800	106MHBA01K4R	55	5.3	18.5	57.5x45x30
12.5	800	126MHBA01K4R	55	4.8	20	57.5x45x30

Capacitance (μF)	WVDC	ic [®] PART NUMBER	dv/dt (V/μs)	Maximum RMS Ripple Current (A) 100kHz, +70°C	Typical ESR m 100kHz, +25°C	L x H x T (mm)
15	370	156MHBA02K4J	60	3.8	20	42.5x45x30
15	370	156MHBA04K4J	37.5	5.1	14	42.5x30x22
15	500	156MHBA03K4J	47.5	4.8	16.5	42.5x37x28
15	700	156MHBA06K4R	50	4.8	19.5	57.5x45x30
15	800	156MHBA01K4R	55	4.4	22	57.5x50x35
20	600	206MHBA02K4R	40	4.1	21	57.5x45x30
20	700	206MHBA06K4R	50	4.1	22.5	57.5x50x35
22	370	226MHBA04K4J	37.5	4.1	17.5	42.5x37x28
22	500	226MHBA03K4J	47.5	3.9	19.5	42.5x45x30
25	500	256MHBA03K4R	32.5	4.4	20	57.5x45x30
25	600	256MHBA02K4R	40	3.6	24	57.5x50x35
30	500	306MHBA03K4R	32.5	3.9	22	57.5x45x30
33	370	336MHBA04K4J	37.5	3.4	21.5	42.5x45x30
40	370	406MHBA04K4R	25	3.9	22	57.5x45x30
40	500	406MHBA03K4R	32.5	3.3	25	57.5x50x35
50	370	506MHBA04K4R	25	3.3	25	57.5x50x35
60	370	606MHBA04K4R	20	3	26	57.5x50x35



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Metallized Electrodes

PHYSICAL DIMENSIONS

Lug Terminals

WVDC (VAC) μF	370 (160)	500 (250)	600 (330)	700 (380)	800 (400)
2.5					42.5x28x17
3				42.5x28x17	
3.3					42.5x30x22
4			42.5x28x17	42.5x30x22	42.5x33.5x22
5			42.5x30x22	42.5x33.5x22	
6.8			42.5x33.5x22		
7.5	42.5x30x22				
8				42.5x37x28	42.5x45x30
10	42.5x28x17	42.5x33.5x22	42.5x37x28	42.5x45x30	57.5x45x30
12.5					57.5x45x30
15	42.5x30x22	42.5x37x28	42.5x45x30	57.5x45x30	57.5x50x35
20			57.5x45x30	57.5x50x35	
22	42.5x37x28	42.5x45x30			
25		57.5x45x30	57.5x50x35		
30		57.5x45x30			
33	42.5x45x30				
40	57.5x45x30	57.5x50x35			
50	57.5x50x35				
60	57.5x50x35				

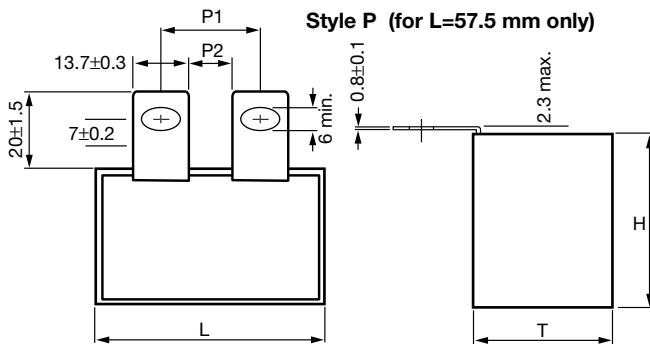
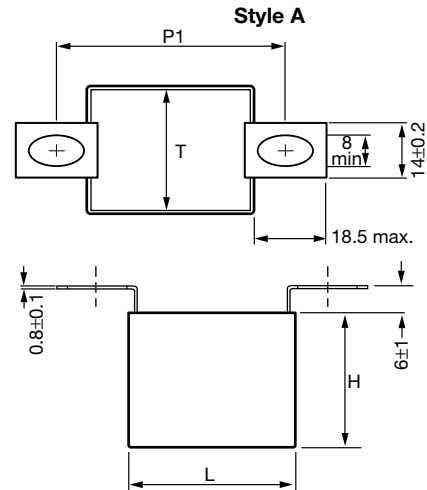
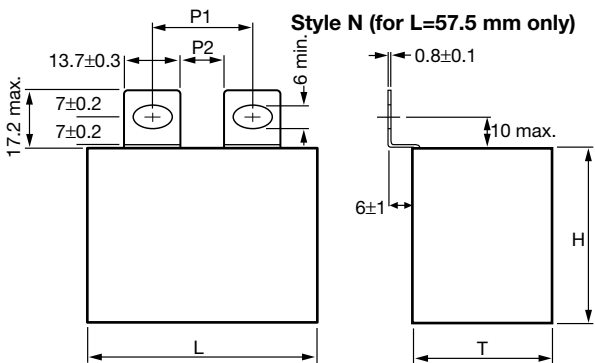
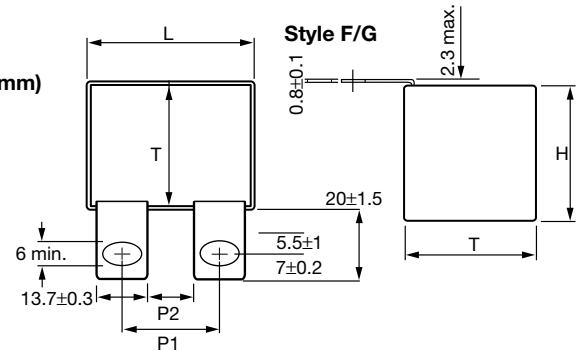
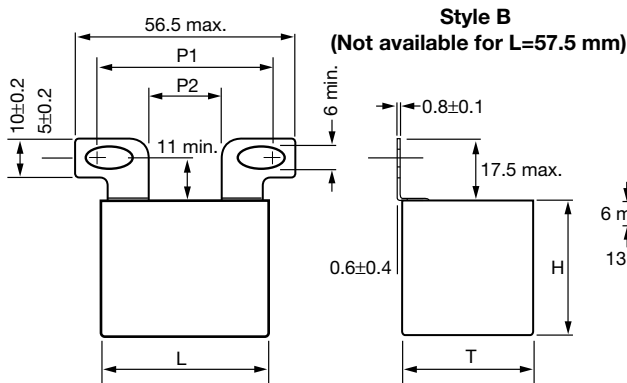
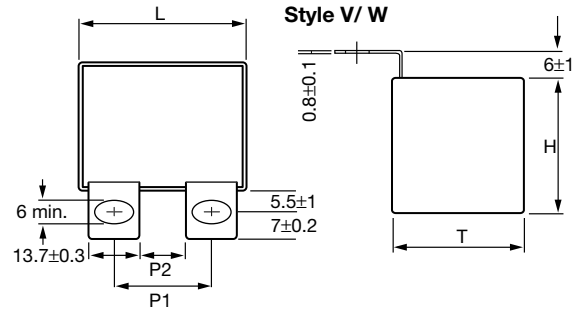
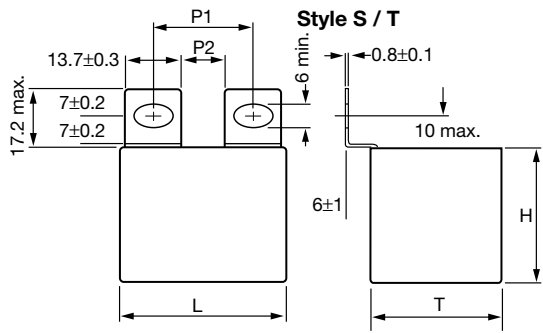
Convert to inches, divide by 25.4

LxHxT mm

Capacitance (μF)	WVDC	IC PART NUMBER	dv/dt (V/μs)	Maximum RMS Ripple Current (A) 100kHz,+70°C	Typical ESR m 100kHz, +25°C	L x H x T (mm)
2.5	800	255MHBA01K##	82.5	9.1	10.5	42.5x28x17
3	700	305MHBA06K##	75	9.2	10.5	42.5x28x17
3.3	800	335MHBA01K##	82.5	7.6	12.5	42.5x30x22
4	600	405MHBA02K##	60	8.2	11	42.5x28x17
4	700	405MHBA06K##	75	7.8	12	42.5x30x22
4	800	405MHBA01K##	82.5	6.6	13.5	42.5x33.5x22
5	600	505MHBA02K##	60	6.6	13	42.5x30x22
5	700	505MHBA06K##	75	6.6	13.5	42.5x33.5x22
6.8	600	685MHBA02K##	60	5.7	15	42.5x33.5x22
7.5	500	755MHBA03K##	47.5	7.5	11.5	42.5x30x22
8	700	805MHBA06K##	75	5.1	17.5	42.5x37x28
8	800	805MHBA01K##	82.5	4	21.5	42.5x45x30
10	370	106MHBA04K##	37.5	6.1	12.5	42.5x28x17
10	500	106MHBA03K##	47.5	6	14.5	42.5x33.5x22
10	600	106MHBA02K##	60	4.7	18	42.5x37x28
10	700	106MHBA06K##	75	4.6	20	42.5x45x30
10	800	106MHBA01K##	55	5.2	20	57.5x45x30
12.5	800	126MHBA01K##	55	4.7	22	57.5x45x30

Capacitance (μF)	WVDC	IC PART NUMBER	dv/dt (V/μs)	Maximum RMS Ripple Current (A) 100kHz,+70°C	Typical ESR m 100kHz, +25°C	L x H x T (mm)
15	370	156MHBA04K##	37.5	5	15	42.5x30x22
15	500	156MHBA03K##	47.5	4.7	17.5	42.5x37x28
15	600	156MHBA02K##	60	3.7	22	42.5x45x30
15	700	156MHBA06K##	50	4.7	22	57.5x45x30
15	800	156MHBA01K##	55	4.3	24	57.5x50x35
20	600	206MHBA02K##	40	4	23	57.5x45x30
20	700	206MHBA06K##	50	4	25	57.5x50x35
22	370	226MHBA04K##	37.5	4	19	42.5x37x28
22	500	226MHBA03K##	47.5	3.8	21.5	42.5x45x30
25	500	256MHBA03K##	32.5	4.3	22	57.5x45x30
25	600	256MHBA02K##	40	3.5	27	57.5x50x35
30	500	306MHBA03K##	32.5	3.8	24	57.5x45x30
33	370	336MHBA04K##	37.5	3.3	23	42.5x45x30
40	370	406MHBA04K##	25	3.8	24	57.5x45x30
40	500	406MHBA03K##	32.5	3.2	28	57.5x50x35
50	370	506MHBA04K##	25	3.2	28	57.5x50x35
60	370	606MHBA04K##	20	2.9	29	57.5x50x35

STYLE DRAWINGS



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	

Dimensions in mm