

# MTB

## Metallized Polyester Film Capacitors for General Purpose Applications



- Blocking
- Filtering
- Bypassing
- Coupling
- Decoupling
- General Purpose Applications

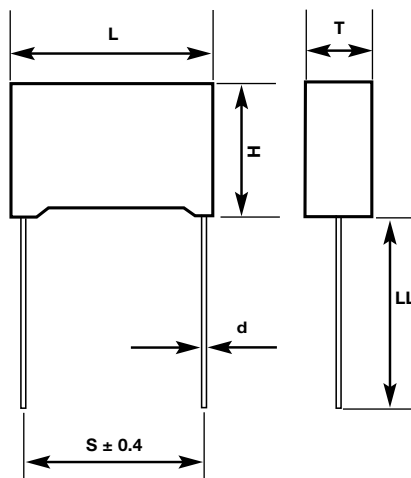
<b>Operating Temperature Range</b>		<b>-55°C to +105°C</b>					
<b>Capacitance Tolerance</b>		<b>+/- 10% at 1kHz, 20°C</b>					
<b>Rated Voltage</b>	<b>VDC</b>	<b>63</b>	<b>100</b>	<b>160</b>	<b>250</b>	<b>400</b>	<b>1000</b>
	<b>VAC</b>	40	63	90	160	200	250
		<b>For T&gt;85°C The rated voltage must be decreased by 1.25% per °C</b>					
<b>Dissipation Factor (max) at 20°C.</b>	<b>Freq (kHz)</b>	<b>C ≤ 1μF</b>	<b>C &gt; 1μF</b>				
	1	0.8%	1.0%				
	10	1.5%	-				
<b>Insulation Resistance @20°C(&lt;70% RH) for 1 minute at 100VDC (50VDC for VDC&lt;100V)</b>	<b>VDC</b>	<b>Capacitance</b>	<b>Insulation Resistance</b>				
	≤100	≤.33μF	3750MΩ				
	≤100	>.33μF	1250MΩxμF				
	>100	≤.33μF	30000MΩ				
	>100	>.33μF	10000MΩxμF				
<b>Dielectric Strength</b>	160% of rated WVDC for 2 seconds at 20°C between leads						
<b>Self inductance</b>	<1nH/mm of capacitor lead spacing						
<b>Capacitance drift</b>	<1.0% up to 40°C after 2 years						
<b>Temperature Coefficient</b>	+400ppm/°C +/- 200ppm/°C						
<b>Reliability</b> Applied voltage = .5VDC@40°C	5 FIT, 1 FIT=1 failure/billion component hours. Typical capacitance change-3%						
<b>Load Life Test</b>	2000 hours at 100°C±2°C, 125% of rated voltage						
	Capacitance Charge			≤5% of initial measured value			
	Dissipation Factor			≤.5% at 10kHz for C≤1μF ≤.3% at 1kHz for C>1μF			
	Insulation Resistance			≥50% of initial specified value			
<b>Dielectric</b>	Polyester						
<b>Electrodes</b>	Vacuum deposited metal layers						
<b>Construction</b>	Extended metallized film with internal series connections for WVDC=1000						
<b>Leads</b>	Tinned copper leads.						
<b>Coating</b>	Solvent resistant plastic box (UL 94V-1) with epoxy end fills (UL 94V-0)						

## PHYSICAL DIMENSIONS

WVDC (VAC) μF	63 (40)	100 (63)	160 (90)	250 (160)	400 (200)	630 (220)	1000 (250)
0.022							18x11x5
0.033							18x12x6
0.047					18x11x5	18x11x5	18x13.5x7.5
0.068					18x11x5	18x12x6	18x14.5x8.5 26.5x15x6
0.1				18x11x5	18x11x5	18x13.5x7.5 26.5x15x6	18x16x10 26.5x16x7
0.15				18x11x5	18x11x5	18x14.5x8.5 26.5x15x6	26.5x17x8.5
0.22				18x11x5	18x12x6 26.5x15x6	26.5x16x7	26.5x20x11 32x17x9
0.33	18x11x5	18x11x5	18x11x5	18x11x5	18x13.5x7.5 26.5x15x6	26.5x18.5x10 32x17x9	32x20x11
0.47	18x11x5	18x11x5	18x11x5	18x12x6 26.5x15x6	18x14.5x8.5 26.5x15x6	32x20x11	32x24.5x15
0.68	18x11x5	18x11x5	18x11x5	18x13.5x7.5 26.5x15x6	26.5x16x7 32x17x9	32x22x13	32x33x18
1	18x11x5	18x11x5	18x13.5x7.5	18x14.5x8.5 26.5x15x6	26.5x18.5x10 32x17x9	32x28x14	32x33x18 42.5x28x17
1.5	18x11x5	18x13.5x7.5 26.5x15x6	18x14.5x8.5 26.5x15x6	18x16x10 26.5x17x9	26.5x20x11 32x17x9	32x33x18	42.5x30x22
2.2	18x12x6	18x14.5x8.5 26.5x15x6	18x16x10 26.5x16x7	26.5x18.5x10 32x17x9	32x22x13	32x37x22 42.5x28x17	42.5x37x28
3.3	18x13.5x7.5 26.5x15x6	18x16x10 26.5x16x7	26.5x17x8.5 32x17x9	26.5x20x11 32x20x11	32x28x14	42.5x30x22	
4.7	18x14.5x8.5 26.5x16x7	26.5x17x8.5	26.5x20x11 32x17x9	32x22x13	32x33x18	42.5x37x28	
6.8	18x16x10 26.5x16x7	26.5x18.5x10 32x17x9	26.5x22x13 32x20x11	32x28x14	32x37x22 42.5x28x17		
10	26.5x17x8.5 32x17x9	26.5x22x13 32x20x11	32x22x13 42.5x28x17	32x33x18	42.5x30x22		
15	26.5x22x13 32x20x11	32x22x13	32x28x14	32x37x22 42.5x28x17	42.5x37x28		
22	32x22x13	32x28x14	32x37x22 42.5x28x17	42.5x30x22			
33	32x24.5x15	32x33x18 42.5x28x17	42.5x30x22	42.5x37x28			
47	32x33x18 42.5x28x17	32x37x22 42.5x30x22	42.5x37x28				
68	32x37x22 42.5x30x22	42.5x37x28					
100	42.5x37x28						

Convert to inches, divide by 25.4

LxHxT (mm)



L	18	26.5	32	42.5
S	15	22.5	27.5	37.5
d	0.8	0.8	0.8	1.0
LL	5.0±1.0	5.0±1.0	5.0±1.0	30±5.0

## STANDARD PART LISTING

Capacitance (µF)	WVDC	IC <sup>®</sup> PART NUMBER	dv/dt (v/µ sec.)	Dimensions L x H x T (mm)
0.022	1000	223MTB102KE	40	18x11x5
0.033	630	333MTB630KE	25	18x11x5
0.033	1000	333MTB102KE	40	18x12x6
0.047	400	473MTB400KE	20	18x11x5
0.047	630	473MTB630KE	25	18x11x5
0.047	1000	473MTB102KE	40	18x13.5x7.5
0.068	400	683MTB400KE	20	18x11x5
0.068	630	683MTB630KE	25	18x12x6
0.068	1000	683MTB102KE	40	18x14.5x8.5
0.068	1000	683MTB102KG	33	26.5x15x6
0.1	250	104MTB250KE	12	18x11x5
0.1	400	104MTB400KE	20	18x11x5
0.1	630	104MTB630KE	25	18x13.5x7.5
0.1	630	104MTB630KG	14	26.5x15x6
0.1	1000	104MTB102KE	40	18x16x10
0.1	1000	104MTB102KG	33	26.5x16x7
0.15	250	154MTB250KE	12	18x11x5
0.15	400	154MTB400KE	20	18x11x5
0.15	630	154MTB630KE	25	18x14.5x8.5
0.15	630	154MTB630KG	14	26.5x15x6
0.15	1000	154MTB102KG	33	26.5x17x8.5
0.22	250	224MTB250KE	12	18x11x5
0.22	400	224MTB400KE	20	18x12x6
0.22	400	224MTB400KG	13	26.5x15x6
0.22	630	224MTB630KG	14	26.5x16x7
0.22	1000	224MTB102KG	33	26.5x20x11
0.22	1000	224MTB102KH	20	32x17x9
0.33	100	334MTB100KE	4	18x11x5
0.33	160	334MTB160KE	9	18x11x5
0.33	250	334MTB250KE	12	18x11x5
0.33	400	334MTB400KE	20	18x13.5x7.5
0.33	400	334MTB400KG	13	26.5x15x6
0.33	630	334MTB630KG	14	26.5x18.5x10
0.33	630	334MTB630KH	10	32x17x9
0.33	1000	334MTB102KH	20	32x20x11
0.47	100	474MTB100KE	4	18x11x5
0.47	160	474MTB160KE	9	18x11x5
0.47	250	474MTB250KE	12	18x12x6
0.47	250	474MTB250KG	8	26.5x15x6
0.47	400	474MTB400KE	20	18x14.5x8.5
0.47	400	474MTB400KG	13	26.5x15x6
0.47	630	474MTB630KH	10	32x20x11
0.47	1000	474MTB102KH	20	32x24.5x15
0.68	63	684MTB063KE	3	18x11x5
0.68	100	684MTB100KE	4	18x11x5
0.68	250	684MTB250KE	12	18x13.5x7.5
0.68	250	684MTB250KG	8	26.5x15x6
0.68	400	684MTB400KG	13	26.5x16x7
0.68	400	684MTB400KH	8.5	32x17x9
0.68	630	684MTB630KH	10	32x22x13
0.68	1000	684MTB102KH	20	32x33x18
1	63	105MTB063KE	3	18x11x5
1	100	105MTB100KE	4	18x11x5
1	160	105MTB160KE	9	18x13.5x7.5
1	250	105MTB250KE	12	18x14.5x8.5
1	250	105MTB250KG	8	26.5x15x6
1	400	105MTB400KG	13	26.5x18.5x10

Capacitance (µF)	WVDC	IC <sup>®</sup> PART NUMBER	dv/dt (v/µ sec.)	Dimensions L x H x T (mm)
1	400	105MTB400KH	8.5	32x17x9
1	630	105MTB630KH	10	32x28x14
1	1000	105MTB102KH	20	32x33x18
1	1000	105MTB102KJ	15	42.5x28x17
1.5	63	155MTB063KE	3	18x11x5
1.5	100	155MTB100KE	4	18x13.5x7.5
1.5	100	155MTB100KG	2.5	26.5x15x6
1.5	160	155MTB160KE	9	18x14.5x8.5
1.5	160	155MTB160KG	6	26.5x15x6
1.5	250	155MTB250KE	12	18x16x10
1.5	250	155MTB250KG	8	26.5x16x7
1.5	250	155MTB250KH	5	32x17x9
1.5	400	155MTB400KG	13	26.5x20x11
1.5	400	155MTB400KH	8.5	32x20x11
1.5	630	155MTB630KH	10	32x33x18
1.5	1000	155MTB102KJ	15	42.5x30x22
2.2	63	225MTB063KE	3	18x12x6
2.2	100	225MTB100KE	4	18x14.5x8.5
2.2	100	225MTB100KG	2.5	26.5x15x6
2.2	160	225MTB160KE	9	18x16x10
2.2	160	225MTB160KG	6	26.5x16x7
2.2	250	225MTB250KG	8	26.5x18.5x10
2.2	250	225MTB250KH	5	32x17x9
2.2	400	225MTB400KH	8.5	32x22x13
2.2	630	225MTB630KH	10	32x37x22
2.2	630	225MTB630KJ	8	42.5x28x17
2.2	1000	225MTB102KJ	15	42.5x37x28
3.3	63	335MTB063KE	3	18x13.5x7.5
3.3	63	335MTB063KG	2	26.5x15x6
3.3	100	335MTB100KE	4	18x16x10
3.3	100	335MTB100KG	2.5	26.5x16x7
3.3	160	335MTB160KG	6	26.5x17x8.5
3.3	160	335MTB160KH	3	32x17x9
3.3	250	335MTB250KG	8	26.5x20x11
3.3	250	335MTB250KH	5	32x20x11
3.3	400	335MTB400KH	8.5	32x28x14
3.3	630	335MTB630KJ	8	42.5x30x22
4.7	63	475MTB063KE	3	18x14.5x8.5
4.7	63	475MTB063KG	2	26.5x16x7
4.7	100	475MTB100KG	2.5	26.5x17x8.5
4.7	160	475MTB160KG	6	26.5x20x11
4.7	160	475MTB160KH	3	32x17x9
4.7	250	475MTB250KH	5	32x22x13
4.7	400	475MTB400KH	8.5	32x33x18
4.7	630	475MTB630KJ	8	42.5x37x28
6.8	63	685MTB063KE	3	18x16x10
6.8	63	685MTB063KG	2	26.5x16x7
6.8	100	685MTB100KG	2.5	26.5x18.5x10
6.8	100	685MTB100KH	1.5	32x17x9
6.8	160	685MTB160KH	3	32x20x11
6.8	160	685MTB160KG	6	26.5x22x13
6.8	250	685MTB250KH	5	32x28x14
6.8	400	685MTB400KH	8.5	32x37x22
6.8	400	685MTB400KJ	6.5	42.5x28x17
10	63	106MTB063KG	2	26.5x17x8.5
10	63	106MTB063KH	1	32x17x9
10	100	106MTB100KG	2.5	26.5x22x13



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Film Capacitors for  
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## STANDARD PART LISTING

Capacitance (µF)	WVDC	ic <sup>®</sup> PART NUMBER	dv/dt (v/µ sec.)	Dimensions L x H x T (mm)
10	100	106MTB100KH	1.5	32x20x11
10	160	106MTB160KH	3	32x22x13
10	160	106MTB160KJ	4	42.5x28x17
10	250	106MTB250KH	5	32x33x18
10	250	106MTB250KJ	4	42.5x28x17
10	400	106MTB400KJ	6.5	42.5x30x22
15	63	156MTB063KG	2	26.5x22x13
15	63	156MTB063KH	1	32x20x11
15	100	156MTB100KH	1.5	32x22x13
15	160	156MTB160KH	3	32x28x14
15	250	156MTB250KH	5	32x37x22
15	250	156MTB250KJ	4	42.5x28x17
15	400	156MTB400KJ	1	42.5x37x28
22	63	226MTB063KH	1	32x22x13
22	100	226MTB100KH	1.5	32x28x14
22	160	226MTB160KH	3	32x37x22

Capacitance (µF)	WVDC	ic <sup>®</sup> PART NUMBER	dv/dt (v/µ sec.)	Dimensions L x H x T (mm)
22	160	226MTB160KJ	2.2	42.5x28x17
22	250	226MTB250KJ	4	42.5x30x22
33	63	336MTB063KH	1	32x24.5x15
33	100	336MTB100KH	1.5	32x33x18
33	100	336MTB100KJ	1.2	42.5x28x17
33	160	336MTB160KJ	2.2	42.5x30x22
33	250	336MTB250KJ	4	42.5x37x28
47	63	476MTB063KH	1	32x33x18
47	63	476MTB063KJ	0.8	42.5x28x17
47	100	476MTB100KH	1.5	32x37x22
47	100	476MTB100KJ	1.2	42.5x30x22
47	160	476MTB160KJ	2.2	42.5x37x28
68	63	686MTB063KH	1	32x37x22
68	63	686MTB063KJ	0.8	42.5x30x22
68	100	686MTB100KJ	1.2	42.5x37x28
100	63	107MTB063KJ	0.8	42.5x37x28