

MPW

Axial leaded metallized polypropylene film capacitors



Features

- Self Healing
- Low ESR
- Stable with frequency and temperature
- Good pulse current rating

Applications

- General Purpose
- AC applications (not across the line)
- Switching power supplies
- Ballasts

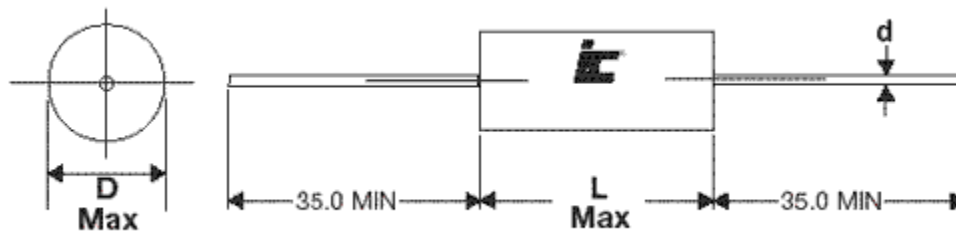
Operating Temperature Range	-55°C to +105°C				
Capacitance Tolerance	$\pm 10\%$ at 1 kHz, 25°C $\pm 5\%$ optional				
Peak, AC voltage (50/60 Hz)	WVDC	160	250	400	630
	VAC	90	200	220	250
For T>+85°C , The voltage must be decreased by 1.25% per °C					
Dissipation Factor (MAX) (%) 25°C	Frequency (kHz)	C\leq0.1μF	0.1μF<C\leq1μF	C>1μF	
	1	.06	0.06	.06	
	10	.1	.2	--	
	100	.3	--	--	
Insulation Resistance @25°C (<70% RH)for 1 minute at 100VDC applied	Capacitance	Insulation Resistance			
	$\leq 0.33\mu\text{F}$	10000 M Ω			
	>0.33μF	30000 M Ω $\times\mu\text{F}$			
Load Life	2000 Hours, +85C with 125% of rated voltage				
	Capacitance Change	$\leq 3\%$ of initially measured value			
	Dissipation Factor	$\leq 125\%$ of maximum specified value			
	Insulation Resistance	$\geq 50\%$ of maximum specified value			
Humidity test	250 Hours, 95%RH, 25C and no voltage applied				
	Capacitance Change	$\leq 5\%$ of initially measured value			
	Dissipation Factor	$\leq 200\%$ of maximum specified value			
	Insulation Resistance	≥ 30000 M Ω $\times\mu\text{F}$			
Self Inductance	<1 nano-Henry per mm of body length and lead length				
Capacitance Drift Factor	<0.5% after 2 years at 40°C				
Capacitance Temperature Coefficient	-200 ppm/°C, ± 100 ppm/°C				
Dielectric Strength	Terminal to Terminal		Terminal to Case		
	200% of VDC or VAC applied for 10 Seconds and 25°C		3kVAC (50/60 Hz) applied for 60 Seconds and 25°C		
Dielectric	Polypropylene				
Construction	metallized film				
Coating	Flame Retardant Polyester tape wrap (UL510) with epoxy end fill (UL94V0)				
Lead terminations	Lead free tinned copper leads				

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	Physical Dimensions

WVDC (VAC) μF	160 (90)	250 (200)	400 (220)	630 (250)
0.001	-----	-----	----->	6.5x14.5
0.0015	-----	----->	6.5x14.5	6.5x14.5
0.0022	-----	----->	6.5x14.5	6.5x14.5
0.0033	-----	----->	6.5x14.5	6.5x14.5
0.0047	-----	----->	6.5x14.5	6x14.5
0.0068	-----	----->	5.5x11.5	6x14.5
0.0082	-----	----->	6.5x14.5	6x14.5
0.01	-----	----->	6x14.5	6.5x14.5
0.015	----->	5.5x14.5	6.5x14.5	7.5x14.5
0.022	5.5x11.5	7x14	7x14.5	8.5x14.5
0.033	5.5x11.5	6.5x14.5	7.5x14.5	8.5x20.5
0.047	5.5x11.5	6.5x14.5	8.5x14.5	9x20.5
0.068	6.5x14.5	7.5x14.5	8.5x20.5	9x29
0.1	6.5x14.5	8.5x14.5	8.5x20.5	10.5x29
0.15	7.5x14.5	8x20.5	9.5x29	12x29
0.22	8x14.5	9.5x20.5	10.5x29	12.5x34
0.33	8.5x20.5	10x29	12.5x29	15.5x34
0.47	9.5x20.5	11x29	14x29	18x34
0.68	10x29	12.5x29	15x34	22x34
1	11x29	13x34	17.5x34	
1.5	13x29	16x34	20.5x34	
2.2	13.5x34	19x34	24x46	
3.3	16x34	17x47	24x47	
4.7	18x34	22.5x47	28.5x47	
6.8	18.5x46.5			
10	22.5x46.5			

Convert to inches divide by 25.4

DxL (mm)



Lead Diameter	
D	d
≤8	0.6
8<D≤22	0.8
>22	1.0

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Axial Leaded
metallized
polypropylene film
capacitors

Standard part listing

CAP (μF)	WVDC	IC PART Number	dv/dt (V/μS)	Dimensions LxHxT (mm)
0.001	630	102MPW630K	22	6.5x14.5
0.0015	400	152MPW400K	15	6.5x14.5
0.0015	630	152MPW630K	22	6.5x14.5
0.0022	400	222MPW400K	15	6.5x14.5
0.0022	630	222MPW630K	22	6.5x14.5
0.0033	400	332MPW400K	15	6.5x14.5
0.0033	630	332MPW630K	22	6.5x14.5
0.0047	400	472MPW400K	15	6.5x14.5
0.0047	630	472MPW630K	22	6x14.5
0.0068	400	682MPW400K	15	5.5x11.5
0.0068	630	682MPW630K	22	6x14.5
0.0082	400	822MPW400K	15	6.5x14.5
0.0082	630	822MPW630K	22	6x14.5
0.01	400	103MPW400K	15	6x14.5
0.01	630	103MPW630K	22	6.5x14.5
0.015	250	153MPW250K	12	5.5x14.5
0.015	400	153MPW400K	15	6.5x14.5
0.015	630	153MPW630K	22	7.5x14.5
0.022	160	223MPW160K	22	5.5x11.5
0.022	250	223MPW250K	12	7x14
0.022	400	223MPW400K	15	7x14.5
0.022	630	223MPW630K	22	8.5x14.5
0.033	160	333MPW160K	22	5.5x11.5
0.033	250	333MPW250K	12	6.5x14.5
0.033	400	333MPW400K	15	7.5x14.5
0.033	630	333MPW630K	16	8.5x20.5
0.047	160	473MPW160K	22	5.5x11.5
0.047	250	473MPW250K	12	6.5x14.5
0.047	400	473MPW400K	15	8.5x14.5
0.047	630	473MPW630K	16	9x20.5
0.068	160	683MPW160K	22	6.5x14.5
0.068	250	683MPW250K	12	7.5x14.5
0.068	400	683MPW400K	12	8.5x20.5
0.068	630	683MPW630K	12	9x29
0.1	160	104MPW160K	22	6.5x14.5
0.1	250	104MPW250K	12	8.5x14.5
0.1	400	104MPW400K	12	8.5x20.5
0.1	630	104MPW630K	12	10.5x29

CAP (μF)	WVDC	IC PART Number	dv/dt (V/μS)	Dimensions LxHxT (mm)
0.15	160	154MPW160K	22	7.5x14.5
0.15	250	154MPW250K	8	8x20.5
0.15	400	154MPW400K	7.5	9.5x29
0.15	630	154MPW630K	12	12x29
0.22	160	224MPW160K	22	8x14.5
0.22	250	224MPW250K	8	9.5x20.5
0.22	400	224MPW400K	7.5	10.5x29
0.22	630	224MPW630K	7	12.5x34
0.33	160	334MPW160K	18	8.5x20.5
0.33	250	334MPW250K	5	10x29
0.33	400	334MPW400K	7.5	12.5x29
0.33	630	334MPW630K	7	15.5x34
0.47	160	474MPW160K	18	9.5x20.5
0.47	250	474MPW250K	5	11x29
0.47	400	474MPW400K	7.5	14x29
0.47	630	474MPW630K	7	18x34
0.68	160	684MPW160K	11	10x29
0.68	250	684MPW250K	5	12.5x29
0.68	400	684MPW400K	5	15x34
0.68	630	684MPW630K	7	22x34
1	160	105MPW160K	11	11x29
1	250	105MPW250K	3	13x34
1	400	105MPW400K	5	17.5x34
1.5	160	155MPW160K	11	13x29
1.5	250	155MPW250K	8	16x34
1.5	400	155MPW400K	5	20.5x34
2.2	160	225MPW160K	8	13.5x34
2.2	250	225MPW250K	3	19x34
2.2	400	225MPW400K	3	24x46
3.3	160	335MPW160K	8	16x34
3.3	250	335MPW250K	2	17x47
3.3	400	335MPW400K	3	24x47
4.7	160	475MPW160K	8	18x34
4.7	250	475MPW250K	2	22.5x47
4.7	400	475MPW400K	3	28.5x47
6.8	160	685MPW160K	8	18.5x46.5
10	160	106MPW160K	8	22.5x46.5



Mouser Electronics

Authorized Distributor

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Cornell Dubilier:

<u>334MPW630K</u>	<u>105MPW160K</u>	<u>105MPW400K</u>	<u>225MPW400K</u>	<u>224MPW630K</u>	<u>222MPW630K</u>	<u>153MPW250K</u>
<u>335MPW400K</u>	<u>224MPW160K</u>	<u>474MPW400K</u>	<u>102MPW630K</u>	<u>105MPW250K</u>	<u>475MPW400K</u>	<u>155MPW400K</u>
<u>103MPW630K</u>	<u>104MPW160K</u>	<u>155MPW160K</u>	<u>222MPW400K</u>	<u>224MPW400K</u>	<u>104MPW630K</u>	<u>154MPW630K</u>
<u>473MPW160K</u>	<u>683MPW160K</u>	<u>154MPW250K</u>	<u>474MPW630K</u>	<u>225MPW160K</u>	<u>472MPW630K</u>	<u>104MPW400K</u>
<u>474MPW250K</u>	<u>473MPW630K</u>	<u>333MPW160K</u>	<u>106MPW160K</u>	<u>684MPW630K</u>	<u>475MPW160K</u>	<u>333MPW630K</u>
<u>103MPW400K</u>	<u>334MPW160K</u>	<u>223MPW400K</u>	<u>223MPW160K</u>	<u>153MPW630K</u>	<u>154MPW160K</u>	<u>225MPW250K</u>
<u>223MPW630K</u>	<u>822MPW400K</u>	<u>224MPW250K</u>	<u>474MPW160K</u>	<u>334MPW400K</u>	<u>154MPW400K</u>	