

# FPA

## Axial Leaded Impregnated Polypropylene Film with Aluminum Foil Electrodes



### APPLICATIONS

- IGBT Protection Circuits
- Snubber Networks

- Energy Conversion
- Control Circuits

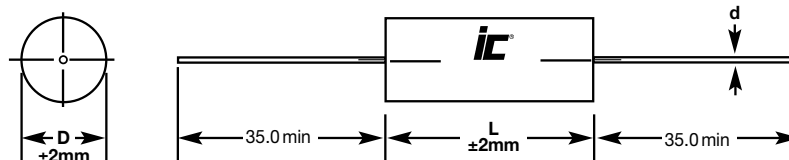
### FEATURES

- High  $dv/dt$
- Low Self Inductance

- Low ESR
- Impregnated Elements Eliminate Corona

### SPECIFICATIONS

Operating Temperature Range		-25°C to +85°C				
Capacitance Tolerance		±10% at 1kHz, 20°C ±5% optional				
AC Voltage	WVDC	850	1200	2000	2500	3000
	VAC	450	500	630	700	750
Dissipation Factor $\tan \delta$ at 1 kHz and 20°C		0.05% Max.				
Insulation Resistance @20°C (<70% RH) for 1 minute at 500 VDC applied		C ≤ 0.33µF: 50000 MΩ C > 0.33µF: 30000 MΩ				
Self Inductance		<1 nano-Henry per mm of lead spacing and lead length				
Dielectric Strength		Terminal to Terminal VDC ≤ 2000VDC			Terminal to Terminal VDC > 2000VDC	
		250% of VDC applied for 2 seconds and 20°			200% of VDC applied for 2 seconds and 20°	
Construction		Impregnated Extended Foil Polypropylene Film				
Electrodes		Aluminum Foil				
Coating		Flame Retardant Polyester Tape Wrap with Epoxy End Fill				
Lead Terminations		Lead free tinned copper leads				



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Impregnated  
Polypropylene Film with  
Aluminum Foil  
Electrodes

## PHYSICAL DIMENSIONS

WVDC (VAC) μF	850 (450)	1200 (500)	2000 (630)	2500 (700)	3000 (750)
0.01			12x23		12x23
0.015			15x23		12x23
0.022			15x23		15x23
0.033			17x35	17x35	17x35
0.047		15x23	17x35	17x35	19x55
0.068		15x23	17x35	17x35	19x55
0.1	17x35	17x35	19x42	19x42	19x55
0.15	17x35	17x35	19x42	19x42	19x55
0.22	19x42	19x42	25x55	19x55	25x55
0.33	19x42	19x42	30x55	25x55	30x55
0.47	19x55	19x55		25x55	
0.68	19x55	19x55			
1	25x55	25x55			
1.2	25x55	30x55			
1.5	25x55	30x55			
2	30x55				

Convert to inches, divide by 25.4

DxL(mm)

## STANDARD PARTS LISTING

Capacitance (μF)	WVDC	IC PART NUMBER	dv/dt (v/μs)	Maximum RMS Current @100 kHz, +70°C in Amps	Typical ESR @100 kHz, +25°C in mΩ	Dimensions DxL (mm)	d (mm)
0.01	2000	103FPA202K	1700	3	42	12x23	0.8
0.01	3000	103FPA302K	2800	2	62	12x23	0.8
0.015	2000	153FPA202K	1700	4	40.3	15x23	0.8
0.015	3000	153FPA302K	2800	3	41	12x23	0.8
0.022	2000	223FPA202K	1700	6	36.5	15x23	0.8
0.022	3000	223FPA302K	2800	4	28	15x23	0.8
0.033	2000	333FPA202K	1700	7	24.2	17x35	0.8
0.033	2500	333FPA252K	1500	4	20	17x35	0.8
0.033	3000	333FPA302K	1500	5	19.8	17x35	1.0
0.047	1200	473FPA122K	1400	5	18	15x23	0.8
0.047	2000	473FPA202K	1700	8	15.3	17x35	0.8
0.047	2500	473FPA252K	1500	6	13	17x35	0.8
0.047	3000	473FPA302K	1000	6.5	18	19x55	1.0
0.068	1200	683FPA122K	1400	6	13	15x23	0.8
0.068	2000	683FPA202K	1700	9	14.2	17x35	1.0
0.068	2500	683FPA252K	1500	8.2	11	17x35	1.0
0.068	3000	683FPA302K	1000	8	12.5	19x55	1.0
0.1	850	104FPA850K	1100	6	12	17x35	0.8
0.1	1200	104FPA122K	1300	8	11	17x35	1.0
0.1	2000	104FPA202K	1000	9	8.6	19x42	1.0
0.1	2500	104FPA252K	1200	8.2	8.9	19x42	1.0
0.1	3000	104FPA302K	1000	8	8.9	19x55	1.2
0.15	850	154FPA850K	1100	6	11.5	17x35	0.8
0.15	1200	154FPA122K	1300	8.2	8.2	17x35	1.0
0.15	2000	154FPA202K	1000	10	7.2	19x42	1.0

Capacitance (μF)	WVDC	IC PART NUMBER	dv/dt (v/μs)	Maximum RMS Current @100 kHz, +70°C in Amps	Typical ESR @100 kHz, +25°C in mΩ	Dimensions DxL (mm)	d (mm)
0.15	2500	154FPA252K	1200	8.2	7.7	19x42	1.0
0.15	3000	154FPA302K	1000	11	6.7	19x55	1.2
0.22	850	224FPA850K	1000	7	10.2	19x42	0.8
0.22	1200	224FPA122K	1200	8.2	7.8	19x42	1.0
0.22	2000	224FPA202K	900	11	6.5	25x55	1.0
0.22	2500	224FPA252K	1000	9.1	6.9	19x55	1.2
0.22	3000	224FPA302K	1000	12	4.8	25x55	1.2
0.33	850	334FPA850K	1000	7	9	19x42	1.0
0.33	1200	334FPA122K	1200	9.1	7.3	19x42	1.0
0.33	2000	334FPA202K	900	11	4.6	30x55	1.2
0.33	2500	334FPA252K	1000	10.8	5.8	25x55	1.2
0.33	3000	334FPA302K	1000	12	4.2	30x55	1.2
0.47	850	474FPA850K	900	8	8.6	19x55	1.0
0.47	1200	474FPA122K	1000	11	6.8	19x55	1.0
0.47	2500	474FPA252K	1000	12	4.2	25x55	1.2
0.68	850	684FPA850K	900	8	8.3	19x55	1.0
0.68	1200	684FPA122K	1000	12	5.3	19x55	1.2
1	850	105FPA850K	900	10	7.6	25x55	1.2
1	1200	105FPA122K	1000	12	5	25x55	1.2
1.2	850	125FPA850K	900	11	7.2	25x55	1.2
1.2	1200	125FPA122K	1000	12	4.8	30x55	1.2
1.5	850	155FPA850K	900	12	6.8	25x55	1.2
1.5	1200	155FPA122K	1000	12	4.2	30x55	1.2
2	850	205FPA850K	900	12	5.6	30x55	1.2



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