

## Polypropylene Film Capacitors

For Snubber, IGBT & Power Semiconductor Power Circuits

### FEATURES

High dvdt - Good Pulse Current -  
Stable with Temperature and Frequency

### APPLICATIONS

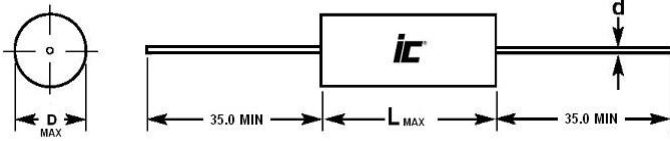
Inverters/Converters - Power Semiconductor Circuits -  
Induction Heating - Switching Power Supplies

<b>Operating Temperature Range</b>	<b>-55°C to +85°C</b>										
<b>Capacitance Tolerance</b>	±10% at 1 kHz, 25°C ±5% optional										
<b>Surge Voltage(SVDC)</b>	<b>WVDC</b>	<b>700</b>	<b>850</b>	<b>1000</b>	<b>1200</b>	<b>1500</b>	<b>2000</b>	<b>2500</b>	<b>3000</b>		
	<b>SVDC</b>	1000	1200	1400	1600	2000	2400	3000	3500		
<b>AC voltage (50/60 Hz)</b>	<b>WVDC</b>	<b>700</b>	<b>850</b>	<b>1000</b>	<b>1200</b>	<b>1500</b>	<b>2000</b>	<b>2500</b>	<b>3000</b>		
	<b>VAC</b>	420	450	480	500	575	630	700	750		
<b>Dissipation Factor (MAX) 25°C</b>	<b>Frequency (kHz)</b>	<b>C≤0.047uF</b>		<b>0.047&gt;C≥1uF</b>		<b>C&gt;1uF</b>					
	1	0.06%		0.05%		0.06%					
<b>Insulation Resistance @25°C (&lt;70% RH)for 1 minute at 100VDC applied</b>	30000 MΩxμF (not to exceed 30GΩ)										
<b>Self Inductance</b>	<1 nano-Henry per mm of lead spacing										
<b>Capacitance Drift Factor</b>	<0.5% after 2 years at 40°C										
<b>Life Expectancy</b>	30000 hours @VAC, 70°C 100000 hours @VDC, 70°C										
	<b>Capacitance Change</b>	≤3% of initially measured value									
<b>Failure Quota</b>	300/ billion component hours										
<b>Damp Heat test</b>	<b>56 days at 40°C with 90 to 95%RH, +40°C and no voltage applied</b>										
	<b>Capacitance Change</b>	≤2% of initially measured value									
	<b>Dissipation Factor</b>	≤0.001 at 1kHz and 25°C									
	<b>Insulation Resistance</b>	≥50% of maximum specified value									
<b>Self Inductance</b>	<1 nano-Henry per mm of body length and lead length										
<b>Capacitance Drift Factor</b>	<1.0% after 2 years at 40°C										
<b>Capacitance Temperature Coefficient</b>	-200 ppm/°C, ±100ppm/°C										
<b>Dielectric Strength</b>	<b>Terminal to Terminal</b>					<b>Terminal to case</b>					
	160% of rated VDC or 200% VDC applied for 2 Seconds and 25°C					3kVAC, 50/60Hz applied between the leads and case for 60 seconds					
<b>Dielectric Construction</b>	Polypropylene Double Metallized film with internal series connections										
<b>Coating</b>	Flame Retardant polyester tape wrap (UL 501) with epoxy resin end fill(UL94V0)										
<b>Leads</b>	Lead free tinned copper leads										



## Polypropylene Film Capacitors

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L MAX	29	34	34	46	46	55	59
D	≤17.5	≤18	>18	≤25	>25	all	all
d±0.05	0.8	0.8	1.0	1.0	1.2	1.2	1.2

Feb-17

# PPA

## High Voltage, high dvdt Axial Lead

Capacitance (μF)	WVDC	IC PART NUMBER	dv/dt (v/μ sec.)	Maximum RMS Ripple Current (A) 100 kHz, +70°C	Typical ESR (mΩ) 100 kHz, +25°C	Dims DxL (mm)
0.0047	3000	472PPA302KG	5250	1	88	11x29
0.0068	3000	682PPA302KG	5250	1.5	65	12.5x29
0.0068	3000	682PPA302K	3500	1.5	77	10.5x34
0.01	2500	103PPA252KG	3900	1.5	52	11.5x29
0.01	3000	103PPA302KG	5250	2	46	14.5x29
0.01	3000	103PPA302K	3500	2	54.5	12x34
0.015	2000	153PPA202KG	2750	2	37.5	11x29
0.015	2500	153PPA252KG	2650	2.5	37	13.5x29
0.015	3000	153PPA302KG	5250	3	33.5	16.5x29
0.015	3000	153PPA302K	3500	3	38.5	14x34
0.022	2000	223PPA202K	2000	2.5	33.5	11x34
0.022	2000	223PPA202KG	2750	2.5	27.5	12.5x29
0.022	2500	223PPA252KG	3900	3	27	15.5x29
0.022	2500	223PPA252KJ	2600	2.5	31	13x34
0.022	3000	223PPA302K	3500	4	27	16x34
0.033	1500	333PPA152KG	2000	3	22	12.5x29
0.033	2000	333PPA202K	2000	3.5	23.8	13x34
0.033	2000	333PPA202KG	2750	3.5	20.7	14.5x29
0.033	2500	333PPA252KG	3900	4	20	18x29
0.033	2500	333PPA252K	2600	4	23	15x34
0.033	3000	333PPA302K	3500	5	19	19x34
0.047	1200	473PPA122K	1600	3	17	12x29
0.047	1200	473PPA122KD11	1200	3	19	10.5x34
0.047	1500	473PPA152KG	2000	3.5	16.5	14x29
0.047	2000	473PPA202KG	2750	4.5	15	16.5x29
0.047	2000	473PPA202K	2000	4.5	16.8	13x34
0.047	2500	473PPA252K	2600	5	16.5	17x34
0.047	3000	473PPA302KD23	3500	6.5	14	22.5x34
0.047	3000	473PPA302K	2000	6	17.8	18x46
0.068	850	683PPA850KG	1200	3.5	13.9	11.5x29
0.068	1000	683PPA102KG	1400	3.5	13.6	12.5x29
0.068	1200	683PPA122KD12	1200	3.5	14.3	12x34
0.068	1200	683PPA122K	1600	4	12.8	13.5x29
0.068	1500	683PPA152K	1500	4	13.8	13.5x34
0.068	1500	683PPA152KG	2000	4.5	12.4	16x29
0.068	2000	683PPA202K	2000	5.5	11.8	17x34
0.068	2500	683PPA252K	2600	6.5	11.5	20.5x34
0.068	3000	683PPA302K	2000	8	12.8	21x46
0.1	700	104PPA700KG	950	3.5	13	12x29
0.1	850	104PPA850KD11	900	4	11.5	11x34
0.1	850	104PPA850K	1200	4.5	10.4	13x29
0.1	1000	104PPA102KG	1400	4.5	10.2	14.5x29
0.1	1000	104PPA102KJ	1050	4.5	11	12.5x34
0.1	1200	104PPA122KG	1600	5	9.7	16x29
0.1	1200	104PPA122K	1200	5	10.7	14x34
0.1	1500	104PPA152K	1500	5.5	9.6	16x34
0.1	2000	104PPA202K	2000	7.5	8.4	20x34
0.1	2500	104PPA252KD20	1650	8	11.5	19.5x46
0.1	2500	104PPA252K	2600	8.5	8	24.5x34
0.1	3000	104PPA302K	2000	11	9.4	25x46
0.15	700	154PPA700KG	950	4.5	9.4	13.5x29
0.15	850	154PPA850KD15	1200	5.5	7.6	15x29
0.15	850	154PPA850K	900	5	8.6	13x34
0.15	1000	154PPA102K	1050	6	8.2	14.5x34
0.15	1000	154PPA102KG	1400	6	7.3	17x29
0.15	1200	154PPA122KD14	780	6	10	14x46
0.15	1200	154PPA122K	1200	6.5	7.7	17x34
0.15	1500	154PPA152K	1500	7	7.2	19.5x34

Capacitance (μF)	WVDC	IC PART NUMBER	dv/dt (v/μ sec.)	Maximum RMS Ripple Current (A) 100 kHz, +70°C	Typical ESR (mΩ) 100 kHz, +25°C	Dims DxL (mm)
0.15	2000	154PPA202KD24	2000	9	6.6	24x34
0.15	2000	154PPA202K	1250	9	8.3	19.5x46
0.15	2500	154PPA252K	1650	9	8	23.5x46
0.15	3000	154PPA302K	2000	12	6.8	30x46
0.22	700	224PPA700KG	950	6	7.1	15.5x29
0.22	700	224PPA700KJ	700	5.5	8	13.5x34
0.22	850	224PPA850KG	1200	7	6.1	17.5x29
0.22	850	224PPA850K	900	6.5	6.6	15x34
0.22	1000	224PPA102K	1050	7.5	5.9	17.5x34
0.22	1200	224PPA122K	1200	9	5.4	19.5x34
0.22	1200	224PPA122KD16	780	9	7.6	16x46
0.22	1500	224PPA152KD19	980	9	7	19x46
0.22	1500	224PPA152K	1500	9.5	5.3	23x34
0.22	2000	224PPA202K	1250	10	6	23x46
0.22	2500	224PPA252K	1650	11.5	5.9	27.5x46
0.22	3000	224PPA302KD31	1450	14	5.9	30.5x55
0.22	3000	224PPA302KS	1275	14	6.5	29x59
0.22	3000	224PPA302K	2000	14	5.2	36x46
0.33	700	334PPA700K	700	7	6	15.5x34
0.33	700	334PPA700KG	950	7	5.4	17.5x29
0.33	850	334PPA850K	900	8.5	4.8	18x34
0.33	1000	334PPA102K	1050	9.5	4.5	20.5x34
0.33	1000	334PPA102KD17	680	9	5.9	17x46
0.33	1200	334PPA122KD23	1200	10.5	4.5	23x34
0.33	1200	334PPA122K	780	9.5	5.4	19x46
0.33	1500	334PPA152K	980	10.5	5.3	23x46
0.33	2000	334PPA202K	1250	12.5	4.7	27.5x46
0.33	2500	334PPA252K	1650	14	4.5	33.5x46
0.33	2500	334PPA252KD29	1050	13.5	5.4	28.5x55
0.33	2500	334PPA252KS	925	13	6	27.5x59
0.33	3000	334PPA302KS	1275	14	5.4	35x59
0.33	3000	334PPA302K	1450	14	4.9	37x55
0.39	3000	394PPA302K	1450	14	4.4	40x55
0.39	3000	394PPA302KS	1275	14	4.9	37.5x59
0.47	700	474PPA700K	700	8	4.7	18x34
0.47	850	474PPA850K	900	10.5	4	21.5x34
0.47	850	474PPA850KD18	600	9.5	5	18x46
0.47	1000	474PPA102KD20	680	10.5	4.7	20x46
0.47	1000	474PPA102K	1050	10.5	3.8	24x34
0.47	1200	474PPA122K	780	10.5	4.8	22x46
0.47	1500	474PPA152K	980	13.5	4.3	27x46
0.47	2000	474PPA202KR	875	13	5.4	27x55
0.47	2000	474PPA202KS	800	12.5	6	26x59
0.47	2000	474PPA202K	1250	14	3.9	32.5x46
0.47	2500	474PPA252KS	925	14	4.9	32x59
0.47	2500	474PPA252K	1050	14	4.4	33.5x55
0.47	3000	474PPA302KS	1275	14	4.5	41x59
0.56	2000	564PPA202KD35	1250	14	3.6	35x46
0.56	2000	564PPA202KS	800	14	5	28.5x59
0.56	2000	564PPA202K	875	14	4.5	29.5x55
0.56	2500	564PPA252KS	925	14	4.5	34.5x59
0.56	2500	564PPA252K	1050	14	4	36.5x55
0.68	700	684PPA700KD22	700	10.5	3.9	21.5x34
0.68	700	684PPA700K	475	10	4.4	18x46
0.68	850	684PPA850K	600	10.5	4.1	21x46
0.68	850	684PPA850KD26	900	10.5	3.2	25.5x34
0.68	1000	684PPA102K	680	10.5	4	23.5x46
0.68	1200	684PPA122K	780	13.5	3.9	26.5x46

# PPA

High Voltage, high dv/dt Axial Lead

Capacitance (μF)	WVDC	IC PART NUMBER	dv/dt (v/μ sec.)	Maximum RMS Ripple Current (A) 100 kHz, +70°C	Typical ESR (mΩ) 100 kHz, +25°C	Dims DxL (mm)
0.68	1500	684PPA152K	980	14	3.7	31.5x46
0.68	2000	684PPA202KS	800	14	4.5	31x59
0.68	2000	684PPA202K	875	14	4	32x55
0.68	2500	684PPA252KS	925	14	4.1	38x59
0.68	2500	684PPA252K	1050	14	3.7	40x55
0.82	2500	824PPA252KS	925	14	3.8	41.5x59
1	700	105PPA700KD26	700	12.5	3.2	26x34
1	700	105PPA700K	475	10.5	3.9	21x46
1	850	105PPA850K	600	14	3.3	25x46
1	1000	105PPA102K	680	14	3.2	28x46
1	1200	105PPA122KR	550	14	4	27x55
1	1200	105PPA122KS	350	14	4.5	25.5x59
1	1200	105PPA122K	780	14	3.4	32x46
1	1500	105PPA152KS	625	14	4.2	30.5x59
1	1500	105PPA152K	675	14	3.7	31.5x55
1	1500	105PPA152KD37	980	14	3.2	37x46
1	2000	105PPA202KS	800	14	3.7	37x59
1	2000	105PPA202K	875	14	3.3	39x55
1.2	1200	125PPA122K	550	14	3.4	29.5x55
1.2	1200	125PPA122KS	500	14	3.8	28x59
1.2	1200	125PPA122KD35	780	14	3	34.5x46
1.2	1500	125PPA152K	675	14	3.4	35.5x55
1.2	1500	125PPA152KS	625	14	3.7	33.5x59
1.2	2000	125PPA202KS	800	14	3.4	40.5x59
1.5	700	155PPA700K	475	14	3.3	25.5x46
1.5	850	155PPA850K	600	14	2.8	29.5x46
1.5	1000	155PPA102KS	425	14	3.6	28x59
1.5	1000	155PPA102K	475	14	3.2	29.5x55
1.5	1000	155PPA102KD34	680	14	2.6	33.5x46
1.5	1200	155PPA122KD37	780	14	2.7	37x46
1.5	1200	155PPA122KS	500	14	3.4	31x59
1.5	1200	155PPA122K	550	14	3	33x55
1.5	1500	155PPA152KS	625	14	3.2	37x59
1.5	1500	155PPA152K	675	14	2.9	40x55
2	700	205PPA700KN	475	14	3	29x46
2	850	205PPA850KS	275	14	3.4	28x59
2	850	205PPA850KD34	600	14	2.4	33.5x46
2	850	205PPA850K	425	14	3	29x55
2	1000	205PPA102KR	475	14	2.9	33.5x55
2	1000	205PPA102KS	425	14	3.2	31.5x59
2	1200	205PPA122KR	550	14	2.6	37.5x55
2	1200	205PPA122KS	500	14	2.9	35.5x59
2	1200	205PPA122K	400	12	2.6	39x55

Capacitance (μF)	WVDC	IC PART NUMBER	dv/dt (v/μ sec.)	Maximum RMS Ripple Current (A) 100 kHz, +70°C	Typical ESR (mΩ) 100 kHz, +25°C	Dims DxL (mm)
2	1500	205PPA152KS	625	14	2.8	42x59
2.2	700	225PPA700KS	300	14	4.2	25.5x59
2.2	700	225PPA700KD27	350	14	3.8	27x55
2.2	700	225PPA700K	475	14	2.9	30x46
2.2	850	225PPA850K	425	14	2.8	30.5x55
2.2	850	225PPA850KD35	600	14	2.3	35x46
2.2	850	225PPA850KS	375	14	3.2	29.5x59
2.2	1000	225PPA102KS	425	14	3	33x59
2.2	1000	225PPA102K	475	14	2.7	35x55
2.2	1200	225PPA122KS	500	14	2.8	37x59
2.2	1200	225PPA122K	550	14	2.5	39x55
2.5	700	255PPA700KS	300	14	3.9	27.5x59
2.5	700	255PPA700KN	475	14	2.8	32x46
2.5	700	255PPA700KR	350	14	3.5	29x55
2.5	850	255PPA850KN	600	14	2.6	36.5x46
2.5	850	255PPA850KS	375	14	2.5	31x59
2.5	850	255PPA850K	425	14	2.2	32x55
2.5	1200	255PPA122KR	550	14	2.3	41x55
2.5	1200	255PPA122KS	500	14	2.6	39x59
3	700	305PPA700KN	475	14	2.6	35x46
3	700	305PPA700KR	350	14	3.2	31x55
3	700	305PPA700KS	300	14	3.6	29.5x59
3	850	305PPA850KR	425	14	2.5	36x55
3	850	305PPA850KS	375	14	2.8	34x59
3	1000	305PPA102KR	475	14	2.4	40.5x55
3	1000	305PPA102KS	425	14	2.6	38x59
3	1200	305PPA122KS	500	14	2.4	42x59
3.3	700	335PPA700KS	300	14	3.5	30.5x59
3.3	700	335PPA700KD32	350	14	3.1	32x55
3.3	700	335PPA700K	475	14	2.5	36x46
3.3	850	335PPA850K	425	14	2.4	37x55
3.3	850	335PPA850KS	375	14	2.7	35x59
3.3	1000	335PPA102KS	425	14	2.5	40x59
4	700	405PPA700KR	350	14	2.8	34.5x59
4	700	405PPA700KS	300	14	3.1	33x59
4	850	405PPA850KR	425	14	2.3	40.5x55
4	850	405PPA850KS	375	14	2.6	38.5x59
4.7	700	475PPA700KS	300	14	2.9	35.5x59
4.7	700	475PPA700K	350	14	2.6	37.5x55
4.7	850	475PPA850KS	375	14	2.4	41.5x59
5.6	700	565PPA700KS	300	14	2.6	38.5x59
5.6	700	565PPA700K	350	14	2.3	41x55
6.8	700	685PPA700KS	300	14	2.4	42x59