

PPS

Axial leaded metallized polypropylene film capacitors for power semiconductors



Features

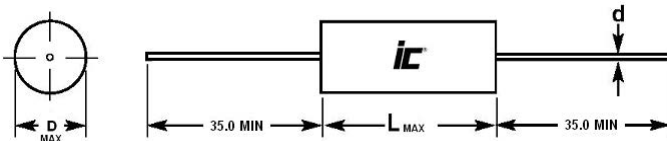
- Self Healing
- High dvdt
- Stable with frequency and temperature
- Good pulse current ratings

Applications

- Power semiconductor circuits
- Inverter/ Converters
- Switching power supplies
- Induction Heating

Specifications

Operating Temperature Range	-55°C to +85°C								
Capacitance Tolerance	±10% at 1 kHz, 25°C +5% optional								
Surge Voltage(SVDC)	WVDC	700	850	1000	1200	1500	2000	2500	3000
	SVDC	1100	1300	1550	1750	2200	2600	300	4000
AC voltage (50/60 Hz)	WVDC	700	850	1000	1200	1500	2000	2500	3000
	VAC	420	500	525	550	600	650	700	750
Dissipation Factor (MAX) 25°C	Frequency (kHz)	C≤0.1uF		C>1uF					
	1	0.05%		0.07%					
Insulation Resistance @25°C (<70% RH)for 1 minute at 100VDC applied	30000 MΩμF (not to exceed 30GΩ)								
Self Inductance	<1 nano-Henry per mm of lead spacing								
Capacitance Drift Factor	<0.5% after 2 years at 40°C								
Life Expectancy	30000 hours @VAC, 70°C 100000 hours @VDC, 70°C								
	Capacitance Change	≤3% of initially measured value							
Failure Quota	300/ billion component hours								
Damp Heat test	56 days at 40°C with 90 to 95%RH, +40°C and no voltage applied								
	Capacitance Change	≤2% of initially measured value							
	Dissipation Factor	≤0.0001 at 1kHz and 25°C							
	Insulation Resistance	≥50% of maximum specified value							
Self Inductance	<1 nano-Henry per mm of body length and lead length								
Capacitance Drift Factor	<1.0% after 2 years at 40°C								
Capacitance Temperature Coefficient	-200 ppm/°C, ±100ppm/°C								
Dielectric Strength	Terminal to Terminal				Terminal to case				
	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				
Dielectric	Polypropylene								
Construction	Metallized film with internal series connections								
Coating	Flame Retardant polyester tape wrap (UL 501) with epoxy resin end fill(UL94V0)								
Leads	Lead free tinned copper leads								



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



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High Voltage, high dvdt Axial Lead

Capacitance (µF)	VWDC	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)
0.0068	3000	682PPS302KG	1500	1	75	12x29
0.01	1500	103PPS252KG	1050	1.5	58	11.5x29
0.01	3000	103PPS302KG	1500	1.5	56	14x29
0.01	3000	103PPS302K	1200	1.5	68	11.5x34
0.015	2500	153PPS252KG	1050	2	42	13x29
0.015	3000	153PPS302KG	1500	2.5	39	16x29
0.015	3000	153PPS302K	1200	2	43	14x34
0.022	2000	223PPS202KG	810	2.5	33	12x29
0.022	2500	223PPS252KG	1050	2.5	30.5	15x29
0.022	3000	223PPS302K	1200	3	31.5	15.5x34
0.033	1500	333PPS152KG	610	2.5	26	11.5x29
0.033	2000	333PPS202K	635	4	27.5	13x34
0.033	2500	333PPS252K	870	3	26	13.5x34
0.033	2500	333PPS252KG	1050	3.5	22.5	17.5x29
0.033	3000	333PPS302K	1200	4	22	18x34
0.047	1200	473PPS122KG	480	2.5	20.5	11x29
0.047	1500	473PPS152KG	610	3	19.5	13x29
0.047	2000	473PPS202KG	810	3.5	18.5	15.5x29
0.047	2000	473PPS202K	650	3	20.5	13x34
0.047	2500	473PPS252K	870	4	19.1	15.5x34
0.047	3000	473PPS302K	1200	5	16	21x34
0.068	1000	683PPS102KG	425	3	16.7	11.5x29
0.068	1200	683PPS122KG	480	3	15.8	12.5x29
0.068	1500	683PPS152KG	610	3.5	14.5	14.5x29
0.068	1500	683PPS152KJ	490	3.5	16.1	12.5x34
0.068	2000	683PPS202KG	810	4.5	13.8	17.5x29
0.068	2000	683PPS202K	650	4	15	15x34
0.068	2500	683PPS252K	870	5	14.5	18x34
0.068	3000	683PPS302KD20	750	6	15	20x46
0.068	3000	683PPS302K	1200	7	12	25x34
0.1	850	104PPS850KG	375	3.5	12.9	11.5x29
0.1	1000	104PPS102KG	425	3.5	12.4	13x29
0.1	1200	104PPS122KG	480	4.5	12	14.5x29
0.1	1200	104PPS122KJ	390	4	13.5	12.5x34
0.1	1500	104PPS152KG	610	5	10.9	17.5x29
0.1	1500	104PPS152K	490	4.5	12	14.5x34
0.1	2000	104PPS202K	650	5.5	11.6	17.5x34
0.1	2500	104PPS252K	870	7	11	22x34
0.1	2500	104PPS252KD17	550	6	14.2	17.5x46
0.1	3000	104PPS302K	750	7.5	11	23.5x46
0.15	700	154PPS700KG	235	3.5	11	11.5x29
0.15	850	154PPS850KG	375	4.5	9.8	13x29
0.15	850	154PPS850K	300	4.5	10.8	12x34
0.15	1000	154PPS102KG	425	5	9.3	15x29
0.15	1000	154PPS102KJ	340	4.5	10.3	13x34
0.15	1200	154PPS122KG	485	5.5	8.8	17x29
0.15	1200	154PPS122K	390	5	9.8	14.5x34
0.15	1500	154PPS152K	490	6	8.7	17.5x34
0.15	2000	154PPS202KD17	410	6.5	10	17.5x46
0.15	2000	154PPS202K	650	7.5	8.2	21.5x34
0.15	2500	154PPS252K	870	8.5	7.6	26x34
0.15	2500	154PPS252KD21	550	7.5	9.3	21.5x46
0.15	3000	154PPS302K	750	10	8	28.5x46
0.22	700	224PPS700KG	235	4.5	8.7	13x29
0.22	850	224PPS850KG	375	5.5	7.7	15x29
0.22	850	224PPS850K	300	5.5	8.4	13.5x34
0.22	1000	224PPS102K	340	5.5	7.7	15x34
0.22	1000	224PPS102KG	425	6.5	7	17x29

Capacitance (µF)	VWDC	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)
0.22	1200	224PPS122K	390	6.5	7.1	17x34
0.22	1500	224PPS152K	490	8	6.5	20.5x34
0.22	1500	224PPS152KD17	320	7.5	8.5	17x46
0.22	2000	224PPS202K	650	9.5	5.7	25.5x34
0.22	2000	224PPS202KD21	410	9	7.2	21x46
0.22	2500	224PPS252K	550	10	6.8	25x46
0.22	3000	224PPS302KD29	500	12	6.8	29x55
0.22	3000	224PPS302K	750	13	6	34x46
0.22	3000	224PPS302KS	370	11	7.7	27.5x55
0.33	700	334PPS700KG	235	5.5	6.7	15x29
0.33	700	334PPS700KJ	185	5.5	7.4	13x34
0.33	850	334PPS850KG	375	7	5.9	17.5x29
0.33	850	334PPS850K	300	7	6.6	16x34
0.33	1000	334PPS102K	340	7.5	5.8	17.5x34
0.33	1200	334PPS122K	390	8.5	5.3	20.5x34
0.33	1200	334PPS122KD17	255	8	6.7	17x46
0.33	1500	334PPS152KD20	320	9	6.4	20.5x46
0.33	1500	334PPS152K	490	10	4.8	24.5x34
0.33	2000	334PPS202K	410	11.5	5.5	25x46
0.33	2500	334PPS252K	550	13	5.2	30x46
0.33	2500	334PPS252KD26	375	12	6.3	26x55
0.33	2500	334PPS252KS	280	11	7.3	25x59
0.33	3000	334PPS302K	500	14	5.5	34x55
0.33	3000	334PPS302KS	370	14	6.2	32.5x59
0.47	700	474PPS700K	185	6.5	5.9	15x34
0.47	700	474PPS700KG	235	7	5.3	17.5x29
0.47	850	474PPS850K	300	9	5.4	18.5x34
0.47	1000	474PPS102K	340	9.5	4.6	21x34
0.47	1000	474PPS102KD17	225	9	5.8	17.5x46
0.47	1200	474PPS122K	390	10.5	3.7	23.5x34
0.47	1200	474PPS122KD20	255	9.5	5.6	20x46
0.47	1500	474PPS152K	320	11.5	5.1	24x46
0.47	2000	474PPS202K	410	13.5	4.5	29x46
0.47	2500	474PPS252KD30	375	14	5.1	30.5x55
0.47	2500	474PPS252K	550	14	4.2	35.5x46
0.47	2500	474PPS252KS	280	13.5	5.8	29.5x59
0.47	3000	474PPS302KS	370	14	5.5	39x59
0.47	3000	474PPS302K	500	14	4.9	41x55
0.56	3000	564PPS302KS	370	14	5.1	42x59
0.68	700	684PPS700K	185	8	4.9	17.5x34
0.68	850	684PPS850K	300	9	4.3	21.5x34
0.68	850	684PPS850KD18	200	9	5.4	18x46
0.68	1000	684PPS102K	340	10.5	3.9	24.5x34
0.68	1000	684PPS102KD20	225	10.5	4.9	20.5x46
0.68	1200	684PPS122K	255	10.5	4.9	23x46
0.68	1500	684PPS152K	320	13.5	4.4	28x46
0.68	2000	684PPS202K	410	114	3.7	34.5x46
0.68	2000	684PPS202KR	300	14	4.7	30x55
0.68	2000	684PPS202KS	225	14	5.4	28.5x59
0.68	2500	684PPS252KS	280	14	4.8	35x59
0.68	2500	684PPS252K	375	14	4.2	36.5x55
0.68	2500	684PPS202KD30	300	14	4.7	30x55
0.82	2500	824PPS252K	375	14	3.7	40x55
0.82	2500	824PPS252KS	280	14	4.2	38.5x59
1	700	105PPS700K	185	10	4.1	21x34
1	700	105PPS700KD17	130	10	4.8	17.5x46
1	850	105PPS850KD21	200	10.5	4.3	21.5x46
1	850	105PPS850K	300	13	3.3	26x34

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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)
1	1000	105PPS102K	225	13	3.9	24.5x46
1	1200	105PPS122K	255	13.5	4.1	27.5x46
1	1500	105PPS152K	320	14	3.3	33.5x46
1	1500	105PPS152KD29	235	14	4.5	29x55
1	1500	105PPS152KS	175	13.5	5.1	28x59
1	2000	105PPS202KS	225	14	4.3	33.5x59
1	2000	105PPS202K	300	14	3.8	35.5x55
1	2500	105PPS252KS	280	14	3.9	42x59
1.2	1200	125PPS122K	255	14	3.7	30x46
1.2	1500	125PPS152K	235	14	4	31.5x55
1.2	1500	125PPS152KS	175	4.5	4.5	28x59
1.3	2000	135PPS202K	300	14	3.3	40.5x55
1.3	2000	135PPS202KS	225	14	3.7	38x59
1.5	700	155PPS700KD21	130	10.5	4.3	21x46
1.5	700	155PPS700K	185	10.5	3.5	25x34
1.5	850	155PPS850K	200	14	3.5	25.5x46
1.5	1000	155PPS102KD25	165	14	4.1	25.5x55
1.5	1000	155PPS102K	225	14	3.1	29.5x46
1.5	1000	155PPS102KS	135	14	4.7	24.5x59
1.5	1200	155PPS122KS	150	14	4.2	27x59
1.5	1200	155PPS122K	255	14	3.2	33.5x46
1.5	1200	155PPS122KD29	190	14	3.7	29x55
1.5	1500	155PPS152K	235	14	3.5	35.5x55
1.5	1500	155PPS152KS	175	14	3.9	33.5x59
1.5	2000	155PPS202KS	225	14	3.5	40.5x59
2	700	205PPS700KN	130	10.5	4	24x46
2	850	205PPS850K	200	14	2.9	29x46
2	1000	205PPS102K	225	14	2.6	33x46
2	1000	205PPS102KD29	165	14	3.5	29x55
2	1000	205PPS102KS	135	14	3.9	27.5x59
2	1200	205PPS122KS	150	14	3.6	31x59
2	1200	205PPS122K	190	14	3.2	33x55
2	1500	205PPS152K	235	14	3	40.5x55
2	1500	205PPS152KS	175	14	3.3	38x59
2.2	700	225PPS700K	130	10.5	3.9	25x46
2.2	850	225PPS850K	200	14	2.9	30x46
2.2	850	225PPS850KR	125	14	3.8	26.5x55
2.2	850	225PPS850KS	110	14	4.3	25x59
2.2	1000	225PPS102KS	135	14	3.8	28.5x59
2.2	1000	225PPS102K	165	14	3.4	30.5x55
2.2	1200	225PPS122K	190	14	3	34.5x55
2.2	1200	225PPS122KS	150	14	3.4	32.5x59
2.2	1500	225PPS152KR	235	14	2.9	41.5x55
2.2	1500	225PPS152KS	175	14	3.2	40x59
2.5	700	255PPS700K	130	14	3.5	26.5x46
2.5	850	255PPS850K	200	14	2.7	32x46

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)
2.5	850	255PPS850KS	110	14	4.1	26.5x59
2.5	850	255PPS850KD28	125	12	3.6	28x55
2.5	1000	255PPS102KS	135	14	3.5	31x59
2.5	1000	255PPS102K	165	14	3.1	33x55
2.5	1200	255PPS122K	190	14	2.7	36.5x55
2.5	1200	255PPS122KS	150	14	3	34.5x59
3	700	305PPS700KN	130	14	3.3	29x46
3	850	305PPS850KS	110	14	3.6	29x59
3	850	305PPS850K	200	14	2.4	34.5x46
3	850	305PPS850KD30	125	14	3.2	30.5x55
3	1000	305PPS102KR	165	14	2.8	35.5x55
3	1000	305PPS102KS	135	14	3.1	33x59
3	1200	305PPS122KS	150	14	2.7	37.5x59
3	1200	305PPS122K	190	14	2.4	40x55
3.3	700	335PPS700K	130	14	3.1	30x46
3.3	700	335PPS700KD26	110	14	3.9	26.5x55
3.3	700	335PPS700KS	90	13.5	4.4	25x59
3.3	850	335PPS850KS	110	14	3.5	30x59
3.3	850	335PPS850K	125	14	3.1	32x55
3.3	1000	335PPS102K	165	14	2.7	36.5x55
3.3	1000	335PPS102KS	135	14	3	34.5x59
3.3	1200	335PPS122KS	150	14	2.6	39x59
3.3	1200	335PPS122K	190	14	2.3	41.5x55
4	700	405PPS700KD28	110	14	3.6	28.5x55
4	700	405PPS700K	130	14	2.8	32.5x46
4	700	405PPS700KS	90	14	4.1	27x59
4	850	405PPS850KS	110	14	3.1	33x59
4	850	405PPS850K	125	14	2.8	35x55
4	1000	405PPS102K	165	14	2.4	40x55
4	1000	405PPS102KS	135	14	2.7	38x59
4.7	700	475PPS700KS	90	14	3.7	29x59
4.7	700	475PPS700K	110	14	3.3	31x55
4.7	850	475PPS850K	125	14	2.5	37x55
4.7	850	475PPS850KS	110	14	2.8	35.5x59
4.7	1000	475PPS102KS	135	14	2.4	40.5x59
5	700	505PPS700K	110	12	3.2	32x55
5	700	505PPS700KS	90	14	3.6	30x59
5	850	505PPS850KS	110	14	2.7	36.5x59
5	850	505PPS850K	125	14	2.4	38x55
5.6	850	565PPS850K	125	12	2.2	40.5x55
6.8	700	685PPS700K	110	14	2.7	37x55
6.8	700	685PPS700KS	90	14	3.1	34.5x59
6.8	850	685PPS850KS	110	14	2.3	41.5x59
8.2	700	825PPS700KS	90	14	2.7	38x59
8.2	700	825PPS700K	110	14	2.4	40.5x55
10	700	106PPS700KS	90	14	2.5	41.5x59