Type 930 Polypropylene Film Capacitors

Axial Leaded Metallized Polypropylene

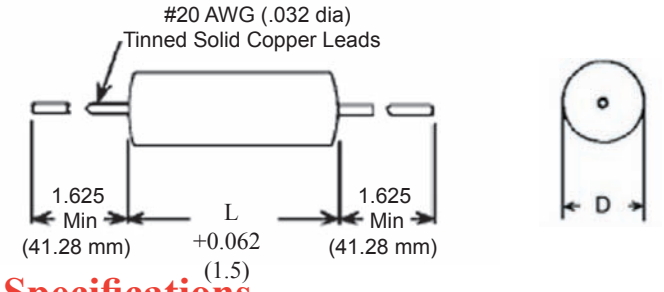


Type 930 axial-leaded, metallized polypropylene capacitors are available in a wide range of capacitance values in small case sizes with a flame-retardant tape wrap and epoxy end seals that provide moisture resistance. Type 930 is used most frequently in high-voltage/high-frequency switching power supplies where superior stability and AC performance characteristics are important. This film capacitor has Underwriters Laboratories, Inc. recognition for construction only under U.L. File Number E128034(N).

Highlights

- Small case sizes
- Ripple Current Capacity
- Suitable for high frequency operation

Outline Drawing



NOTE: Other capacitance values, sizes and performance specifications are available. Contact us.

Specifications

RoHS Compliant

Complies with the EU Directive 2002/95/EC requirement restricting the use of Lead (Pb), Mercury (Hg), Cadmium (Cd), Hexavalent chromium (Cr(VI)), PolyBrominated Biphenyls (PBB) and PolyBrominated Diphenyl Ethers (PBDE).

Capacitance Range:	.022 to 10.0 µF
Voltage Range:	100 to 630 Vdc (70 to 275 Vac 60 Hz)
Capacitance Tolerance:	±10% (K) Standard; ±5% (J) Optional
Operating Temperature Range:	–55 ºC to +105 ºC* *Full rated voltage at 85 ºC - derated linearly to 50% rated at 105 ºC
Dielectric Withstand voltage:	200% for 1 minute
Dissipation Factor (DF):	0.10% Max. (25 ºC, 1 kHz)
Insulation Resistance:	200,000 MΩ x µF 400,000 MΩ Min.
Life Test:	1,000 hours at 85 ºC at 125% rated voltage

Ratings

Cap. (µF)	Catalog Part Number	D Max. Inches	D Max. (mm)	L +0.062 (1.5) Inches	L +0.062 (1.5) (mm)	ESR 20-100 kHz (milliohms)	dV/dt (V/µs)	Maximum Ripple Current (Amps rms) at 20 kHz Case Temperature +25 ºC	+35 ºC	+45 ºC	+55 ºC	+65 ºC	+75 ºC	+85 ºC
100 Vdc (70 Vac)														
.22	930C1P22K–F	.275	(7.0)	.750	(19.0)	---	25							
.27	930C1P27K–F	.298	(7.6)	.750	(19.0)	---	25							
.33	930C1P33K–F	.324	(8.2)	.750	(19.0)	---	25							
.39	930C1P39K–F	.347	(8.8)	.750	(19.0)	---	25							
.47	930C1P47K–F	.376	(9.5)	.750	(19.0)	37	25	3.7	3.4	3.1	2.8	2.5	2.0	1.4
.56	930C1P56K–F	.321	(8.2)	1.000	(25.4)	35	14	3.9	3.6	3.3	2.9	2.6	2.1	1.5
.68	930C1P68K–F	.348	(8.8)	1.000	(25.4)	33	14	4.1	3.8	3.5	3.1	2.8	2.2	1.6
.82	930C1P82K–F	.377	(9.6)	1.000	(25.4)	31	14	4.3	4.0	3.6	3.2	2.9	2.3	1.7
1.00	930C1W1K–F	.421	(10.7)	1.000	(25.4)	26	14	5.5	5.1	4.7	4.2	3.6	2.8	2.6

Type 930 Polypropylene Film Capacitors

Cap. (µF)	Catalog Part Number	D Max. Inches	D Max. (mm)	L +0.062 Inches	L (1.5) (mm)	ESR 20-100 kHz (milliohms)	dV/dt (V/µs)	Maximum Ripple Current (Amps rms) at 20 kHz Case Temperature +25 ºC	+35 ºC	+45 ºC	+55 ºC	+65 ºC	+75 ºC	+85 ºC
100 Vdc (70 Vac)														
1.20	930C1W1P2K–F	.454	(11.5)	1.000	(25.4)	24	14	5.7	5.3	4.9	4.4	3.8	3.0	2.8
1.50	930C1W1P5K–F	.500	(12.7)	1.000	(25.4)	20	14	6.1	5.5	5.1	4.6	4.0	3.2	3.1
1.80	930C1W1P8K–F	.541	(13.7)	1.000	(25.4)	19	14	6.3	5.7	5.3	4.8	4.1	3.4	3.0
2.00	930C1W2K–F	.486	(12.3)	1.250	(31.7)	18	10	6.5	6.0	5.5	4.9	4.2	3.5	3.2
2.20	930C1W2P2K–F	.507	(12.9)	1.250	(31.7)	18	10	6.8	6.3	5.7	2.1	4.4	3.6	3.3
2.70	930C1W2P7K–F	.554	(14.1)	1.250	(31.7)	17	10	7.1	6.5	6.0	5.3	4.6	3.7	3.4
3.00	930C1W3K–F	.581	(14.8)	1.250	(31.7)	16	10	7.3	6.7	6.2	5.5	4.8	3.9	3.5
3.30	930C1W3P3K–F	.606	(15.4)	1.250	(31.7)	16	10	7.4	6.8	6.4	5.6	4.9	4.0	3.6
3.90	930C1W3P9K–F	.654	(16.6)	1.250	(31.7)	15	10	7.6	6.9	6.6	5.8	5.1	4.1	3.7
4.00	930C1W4K–F	.537	(13.6)	1.750	(44.4)	15	6	7.8	7.0	6.7	5.9	5.2	4.2	3.8
4.70	930C1W4P7K–F	.577	(14.7)	1.750	(44.4)	15	6	8.1	7.4	6.8	6.0	5.3	4.3	3.9
5.00	930C1W5K–F	.593	(15.1)	1.750	(44.4)	14	6	8.3	7.6	7.0	6.2	5.4	4.4	4.0
5.60	930C1W5P6K–F	.624	(15.8)	1.750	(44.4)	14	6	8.4	7.7	7.1	6.4	5.5	4.5	4.1
6.00	930C1W6K–F	.644	(16.4)	1.750	(44.4)	14	6	8.5	7.8	7.2	6.5	5.6	4.6	4.2
6.80	930C1W6P8K–F	.682	(17.3)	1.750	(44.4)	13	6	8.5	8.0	7.4	6.7	5.7	4.7	4.3
8.00	930C1W8K–F	.735	(18.7)	1.750	(44.4)	13	6	8.6	8.3	7.7	6.8	6.0	4.8	4.4
8.20	930C1W8P2K–F	.743	(18.9)	1.750	(44.4)	13	6	8.8	8.6	8.0	7.0	6.1	4.9	4.5
10.00	930C1W10K–F	.815	(20.7)	1.750	(44.4)	12	6	9.0	9.0	8.5	7.6	6.6	5.4	4.9
250 Vdc (175 Vac)														
.10	930C2P1K–F	.315	(8.0)	.750	(19.0)	---	37							
.12	930C2P12K–F	.315	(8.0)	.750	(19.0)	---	37							
.15	930C2P15K–F	.335	(8.5)	.750	(19.0)	---	37							
.18	930C2P18K–F	.353	(9.0)	.750	(19.0)	---	37							
.22	930C2P22K–F	.335	(8.5)	1.000	(25.4)	---	21							
.27	930C2P27K–F	.335	(8.5)	1.000	(25.4)	---	21							
.33	930C2P33K–F	.362	(9.2)	1.000	(25.4)	---	21							
.39	930C2P39K–F	.389	(9.9)	1.000	(25.4)	---	21							
.47	930C2P47K–F	.422	(10.7)	1.000	(25.4)	35	21	3.8	3.7	3.6	3.4	2.9	2.4	1.7
.56	930C2P56K–F	.464	(11.8)	1.000	(25.4)	33	21	3.9	3.8	3.7	3.5	3.1	2.5	1.8
.68	930C2P68K–F	.472	(12.0)	1.250	(31.7)	32	15	4.0	3.9	3.8	3.7	3.2	2.6	1.9
.82	930C2P82K–F	.471	(12.0)	1.250	(31.7)	31	15	4.2	4.1	4.0	3.9	3.4	2.8	2.0
1.00	930C2W1K–F	.513	(13.0)	1.260	(32.0)	28	15	4.4	4.4	4.4	4.4	4.3	3.5	3.2
1.20	930C2W1P2K–F	.554	(14.1)	1.260	(32.0)	27	15	4.7	4.6	4.5	5.0	4.5	3.7	3.3
1.50	930C2W1P5K–F	.613	(15.6)	1.260	(32.0)	26	15	5.1	5.0	4.9	4.4	4.7	3.9	3.5
1.80	930C2W1P8K–F	.667	(16.9)	1.250	(31.7)	25	15	5.9	5.8	5.7	5.7	5.0	4.1	3.7
2.00	930C2W2K–F	.700	(17.8)	1.250	(31.7)	21	15	7.2	7.2	6.8	6.0	5.2	4.3	3.9
2.20	930C2W2P2K–F	.650	(16.5)	1.750	(44.4)	20	9	8.4	7.5	7.0	6.3	5.4	4.5	4.1
2.70	930C2W2P7K–F	.669	(17.0)	1.750	(44.4)	19	9	8.6	7.8	7.3	6.6	5.7	4.7	4.3
3.00	930C2W3K–F	.703	(17.8)	1.750	(44.4)	18	9	9.0	8.3	7.6	6.8	5.9	4.8	4.4
3.30	930C2W3P3K–F	.734	(18.6)	1.750	(44.4)	18	9	9.0	8.4	7.8	7.0	6.0	4.9	4.5
3.90	930C2W3P9K–F	.794	(20.2)	1.750	(44.4)	17	9	9.0	8.5	8.0	7.2	6.2	5.0	4.6
4.00	930C2W4K–F	.803	(20.4)	1.750	(44.4)	16	9	9.0	8.5	8.2	7.4	6.3	5.1	4.7
4.70	930C2W4P7K–F	.866	(22.0)	1.750	(44.4)	16	9	9.0	8.8	8.5	7.7	6.6	5.3	4.9
5.00	930C2W5K–F	.892	(22.6)	1.750	(44.4)	15	9	9.0	9.0	8.8	7.9	6.8	5.6	5.1
5.60	930C2W5P6K–F	.941	(23.9)	1.750	(44.4)	15	9	9.0	9.0	8.9	8.0	7.0	5.8	5.3
6.00	930C2W6K–F	.972	(24.7)	1.750	(44.4)	15	9	9.0	9.0	9.0	8.2	7.2	5.9	5.5
6.80	930C2W6P8K–F	.882	(22.4)	2.250	(57.1)	15	9	9.0	9.0	9.0	8.4	7.4	6.0	5.6
8.00	930C2W8K–F	.953	(24.2)	2.250	(57.1)	14	9	9.0	9.0	9.0	8.7	7.8	6.3	5.8
8.20	930C2W8P2K–F	.964	(24.5)	2.250	(57.1)	14	9	9.0	9.0	9.0	8.8	7.9	6.4	5.9
10.00	930C2W10K–F	1.060	(26.9)	2.250	(57.1)	13	9	9.0	9.0	9.0	9.0	8.3	6.8	6.2

Cap. (µF)	Catalog Part Number	D Max. Inches	D Max. (mm)	L +0.062 (1.5) Inches	L +0.062 (1.5) (mm)	ESR 20-100 kHz (milliohms)	dV/dt (V/µs)	Maximum Ripple Current (Amps rms) at 20 kHz Case Temperature +25 ºC	+35 ºC	+45 ºC	+55 ºC	+65 ºC	+75 ºC	+85 ºC
400 Vdc (250 Vac)														
.047	930C4S47K–F	.315	(8.0)	.750	(19.0)	---	49							
.056	930C4S56K–F	.315	(8.0)	.750	(19.0)	---	49							
.068	930C4S68K–F	.315	(8.0)	.750	(19.0)	---	49							
.082	930C4S82K–F	.320	(8.1)	.750	(19.0)	---	49							
.10	930C4P1K–F	.348	(8.8)	.750	(19.0)	---	49							
.12	930C4P12K–F	.299	(7.6)	1.000	(25.4)	---	28							
.15	930C4P15K–F	.335	(8.5)	1.000	(25.4)	---	28							
.18	930C4P18K–F	.353	(9.0)	1.000	(25.4)	---	28							
.22	930C4P22K–F	.385	(9.8)	1.000	(25.4)	---	28							
.27	930C4P27K–F	.421	(10.7)	1.000	(25.4)	---	28							
.33	930C4P33K–F	.469	(11.9)	1.000	(25.4)	---	28							
.39	930C4P39K–F	.503	(12.8)	1.000	(25.4)	---	28							
.47	930C4P47K–F	.545	(13.8)	1.000	(25.4)	32	20	5.7	5.5	5.0	4.4	3.8	3.2	2.2
.56	930C4P56K–F	.503	(12.8)	1.260	(32.0)	31	20	5.7	5.7	5.3	4.4	4.1	3.3	2.3
.68	930C4P68K–F	.551	(14.0)	1.260	(32.0)	30	20	5.7	5.7	5.5	4.8	4.3	3.5	2.4
.82	930C4P82K–F	.599	(15.2)	1.260	(32.0)	28	20	5.7	5.7	5.6	5.3	4.5	3.7	2.6
1.00	930C4W1K–F	.655	(16.6)	1.260	(32.0)	27	20	5.7	5.7	5.7	5.7	5.7	4.7	4.3
1.20	930C4W1P2K–F	.712	(18.1)	1.260	(32.0)	26	20	6.3	6.2	6.0	5.9	5.8	4.9	4.5
1.50	930C4W1P5K–F	.709	(18.0)	1.750	(44.4)	25	13	7.0	6.9	6.7	6.6	6.5	5.2	4.7
1.80	930C4W1P8K–F	.716	(18.2)	1.750	(44.4)	23	13	8.0	7.9	7.8	7.7	6.8	5.5	5.0
2.00	930C4W2K–F	.752	(19.1)	1.750	(44.4)	21	13	9.0	9.0	9.0	8.0	7.0	5.7	5.2
2.20	930C4W2P2K–F	.827	(21.0)	1.750	(44.4)	20	13	9.0	9.0	9.0	8.3	7.4	5.9	5.4
2.70	930C4W2P7K–F	.865	(22.0)	1.750	(44.4)	19	13	9.0	9.0	9.0	8.6	7.6	6.0	5.6
3.00	930C4W3K–F	.909	(23.1)	1.750	(44.4)	17	13	9.0	9.0	9.0	9.0	7.9	6.4	5.9
3.30	930C4W3P3K–F	.951	(24.1)	1.750	(44.4)	16	13	9.0	9.0	9.0	9.0	8.1	6.6	6.3
3.90	930C4W3P9K–F	1.031	(26.2)	1.750	(44.4)	15	13	9.0	9.0	9.0	9.0	8.3	6.8	6.5
630 Vdc (275 Vac)														
.022	930C6S22K–F	.315	(8.0)	.750	(19.0)	---	74							
.027	930C6S27K–F	.315	(8.0)	.750	(19.0)	---	74							
.033	930C6S33K–F	.334	(8.5)	.750	(19.0)	---	74							
.039	930C6S39K–F	.358	(9.1)	.750	(19.0)	---	74							
.047	930C6S47K–F	.388	(9.9)	.750	(19.0)	---	74							
.056	930C6S56K–F	.418	(10.6)	.750	(19.0)	---	74							
.068	930C6S68K–F	.354	(9.0)	1.000	(25.4)	---	43							
.082	930C6S82K–F	.374	(9.5)	1.000	(25.4)	---	43							
.10	930C6P1K–F	.433	(11.0)	1.000	(25.4)	---	43							
.12	930C6P12K–F	.443	(11.2)	1.000	(25.4)	---	43							
.15	930C6P15K–F	.512	(13.0)	1.260	(32.0)	---	30							
.18	930C6P18K–F	.538	(13.7)	1.260	(32.0)	---	30							
.22	930C6P22K–F	.496	(12.6)	1.260	(32.0)	---	30							
.27	930C6P27K–F	.542	(13.8)	1.260	(32.0)	---	30							
.33	930C6P33K–F	.593	(15.1)	1.260	(32.0)	---	30							
.39	930C6P39K–F	.639	(16.2)	1.260	(32.0)	---	30							
.47	930C6P47K–F	.696	(17.7)	1.457	(37.0)	28	20	6.8	6.3	5.8	5.2	4.5	3.6	2.6
.56	930C6P56K–F	.608	(15.4)	1.750	(44.4)	26	19	7.4	6.9	6.3	5.6	4.8	4.0	2.8
.68	930C6P68K–F	.709	(18.0)	1.750	(44.4)	25	19	7.8	7.2	6.6	5.9	5.1	4.2	2.9
.82	930C6P82K–F	.724	(18.4)	1.750	(44.4)	22	19	8.1	7.5	6.9	6.2	5.3	4.3	3.1
1.00	930C6W1K–F	.794	(20.2)	1.850	(47.0)	18	19	8.6	7.9	7.3	6.5	5.6	4.6	3.6