Type LPW 85 °C Snap-In Aluminum Electrolytic Capacitors

Low Voltage, High Value Capacitors



Type LPW radial leaded snap-in aluminum electrolytic capacitors are a compact design for high density packaging and is ideal for low voltage, general purpose input filtering applications.

Highlights

- Low voltage
- High Capacitance
- 85 °C
- Good for input filtering in consumer applications
- 22 to 35 mm diameter with 10 mm lead spacing

Specifications

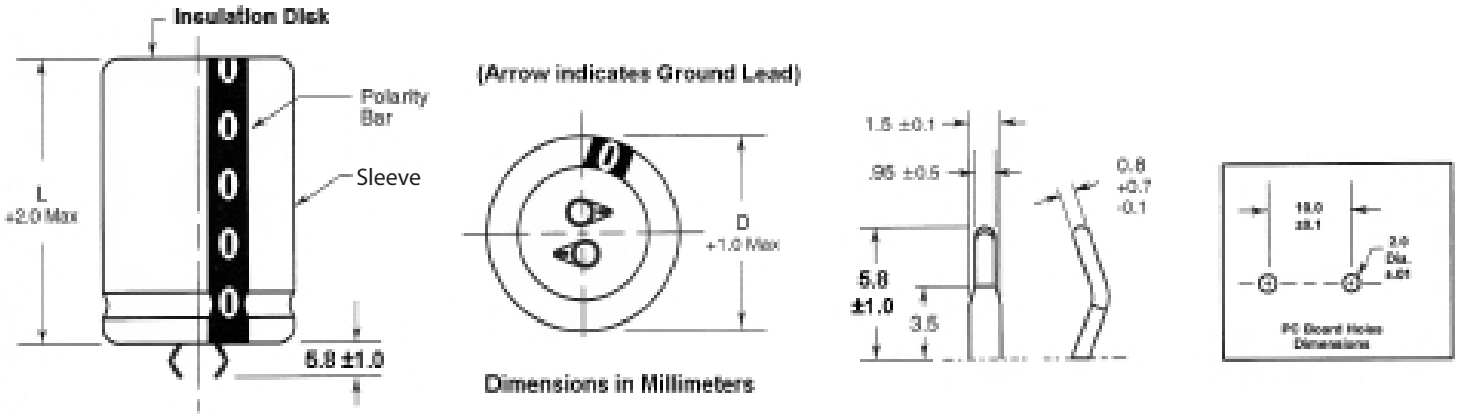
Capacitance Range	820 to 22,000 µF
Capacitance Tolerance	±20%
Rated Voltage	10 to 100 Vdc
Operating Temperature Range	–40 °C to +85 °C
DC Leakage Test	I ≤.03CV ir 3 mA C = capacitance in µF V = rated voltage I = leakage current in µA
Dissipation Factor	**DF at 120 Hz, +25 °C** **Vdc**: 10 - 16 | 25 - 35 | 50 - 63 | 100 **DF %**: 30 | 25 | 20 | 15 For values that are >1000 µF, the DF (%) increases 2% for every additional 1000 µF
Temperature Ripple Multipliers	**Temperature** / **Ripple Multiplier** +70 °C: 1.20 +60 °C: 1.30 +45 °C: 1.55
Voltage/Frequency Ripple Multipliers	**Rated Vdc** / **Ripple Multipliers**: 60 Hz | 120 Hz | 1 kHz | 10 kHz | 100 kHz 10 to 35: 0.90 | 1.00 | 1.05 | 1.10 | 1.10 50 to 100: 0.90 | 1.00 | 1.15 | 1.20 | 1.20 160 to 250: 0.80 | 1.00 | 1.15 | 1.25 | 1.35
Regulatory Information	

Part Numbering System

LPW	332	M	1J	Q	25	V-W
Type	Cap	Tolerance	Voltage	Case Diameter Code	Case Length	Case Type & Terminals
LPW	821 = 820 µF 332 = 3300 µF 103 = 10,000 µF	±20%	1A = 10 Vdc 1C = 16 Vdc 1E = 25 Vdc 1V = 35 Vdc 1H = 50 Vdc 1J = 63 Vdc 2A = 100 Vdc	N = 22 mm O = 25 mm P = 30 mm Q = 35 mm	25 = 25 mm	V = Vented Case — = Dash W = Snap-In

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Outline Drawing



Ratings

Cap (µF)	Catalog Part Number	Max ESR @ 120 Hz +25 °C (Ω)	Max Ripple @ 120 Hz +85 °C (A)	Size (Inches) D	Size (Inches) L	Size (mm) D	Size (mm) L
10 Vdc; 13 Vdc Surge							
8,200	LPW822M1AN25V-W	0.101	2.39	0.866	0.984	22	25
8,200	LPW822M1AO25V-W	0.101	2.46	0.984	0.984	25	25
10,000	LPW103M1AN30V-W	0.083	2.69	0.866	1.181	22	30
10,000	LPW103M1AO25V-W	0.083	2.57	0.984	0.984	25	25
12,000	LPW123M1AN30V-W	0.083	2.81	0.866	1.181	22	30
12,000	LPW123M1AP25V-W	0.083	2.84	1.181	0.984	30	25
15,000	LPW153M1AN35V-W	0.066	3.14	0.866	1.378	22	35
15,000	LPW153M1AP25V-W	0.066	2.97	1.181	0.984	30	25
22,000	LPW223M1AN45V-W	0.045	3.79	0.866	1.772	22	45
22,000	LPW223M1AP30V-W	0.045	3.45	1.181	1.181	30	30
16 Vdc; 20 Vdc Surge							
4,700	LPW472M1CN25V-W	0.141	1.81	0.866	0.984	22	25
4,700	LPW472M1CO25V-W	0.141	2.21	0.984	0.984	25	25
6,800	LPW682M1CN25V-W	0.122	2.40	0.866	0.984	22	25
6,800	LPW682M1CO25V-W	0.122	2.47	0.984	0.984	25	25
8,200	LPW822M1CN30V-W	0.101	2.70	0.866	1.181	22	30
8,200	LPW822M1CP25V-W	0.101	2.73	1.181	0.984	30	25
10,000	LPW103M1CN35V-W	0.083	3.00	0.866	1.378	22	35
10,000	LPW103M1CP25V-W	0.083	2.84	1.181	0.984	30	25
12,000	LPW123M1CN40V-W	0.069	3.30	0.866	1.575	22	40
12,000	LPW123M1CP30V-W	0.069	3.16	1.181	1.181	30	30
15,000	LPW153M1CN45V-W	0.055	3.62	0.866	1.772	22	45
15,000	LPW153M1CQ25V-W	0.055	3.55	1.378	0.984	35	25
22,000	LPW223M1CO45V-W	0.038	4.25	0.984	1.772	25	45
22,000	LPW223M1CQ30V-W	0.038	4.37	1.378	1.181	35	30
25 Vdc; 32 Vdc Surge							
3,300	LPW332M1EN25V-W	0.176	2.03	0.866	0.984	22	25
3,300	LPW332M1EO25V-W	0.176	2.09	0.984	0.984	25	25
4,700	LPW472M1EN30V-W	0.159	2.49	0.866	1.181	22	30
4,700	LPW472M1EO25V-W	0.159	2.31	0.984	0.984	25	25
6,800	LPW682M1EN35V-W	0.110	2.87	0.866	1.378	22	35

Cap (µF)	Catalog Part Number	Max ESR @ 120 Hz +25 °C (Ω)	Max Ripple @ 120 Hz +85 °C (A)	Size (Inches) D	Size (Inches) L	Size (mm) D	Size (mm) L
25 Vdc; 32 Vdc Surge							
6,800	LPW682M1EP25V-W	0.110	2.72	1.181	0.984	30	25
8,200	LPW822M1EN40V-W	0.091	3.16	0.866	1.575	22	40
8,200	LPW822M1EP30V-W	0.091	3.03	1.181	1.181	30	30
10,000	LPW103M1EN45V-W	0.075	3.45	0.866	1.772	22	45
10,000	LPW103M1EP30V-W	0.075	3.14	1.181	1.181	30	30
12,000	LPW123M1EN50V-W	0.062	3.74	0.866	1.969	22	50
12,000	LPW123M1EQ30V-W	0.062	3.75	1.378	1.181	35	30
15,000	LPW153M1EO45V-W	0.050	3.78	0.984	1.772	25	45
15,000	LPW153M1EQ30V-W	0.050	3.89	1.378	1.181	35	30
22,000	LPW223M1EP50V-W	0.034	4.94	1.181	1.969	30	50
35 Vdc; 44 Vdc Surge							
3,300	LPW332M1VN25V-W	0.176	2.04	0.866	0.984	22	25
3,300	LPW332M1VO25V-W	0.176	2.10	0.984	0.984	25	25
4,700	LPW472M1VN30V-W	0.123	2.41	0.866	1.181	22	30
4,700	LPW472M1VP25V-W	0.123	2.44	1.181	0.984	30	25
6,800	LPW682M1VN40V-W	0.085	2.98	0.866	1.575	22	40
6,800	LPW682M1VP30V-W	0.085	2.86	1.181	1.181	30	30
8,200	LPW822M1VN45V-W	0.071	3.25	0.866	1.772	22	45
8,200	LPW822M1VQ30V-W	0.071	3.42	1.378	1.181	35	30
10,000	LPW103M1VO45V-W	0.058	3.41	0.984	1.772	25	45
10,000	LPW103M1VQ30V-W	0.058	3.51	1.378	1.181	35	30
12,000	LPW123M1VO50V-W	0.048	3.68	0.984	1.969	25	50
12,000	LPW123M1VQ35V-W	0.048	3.84	1.378	1.378	35	35
15,000	LPW153M1VP45V-W	0.039	4.08	1.181	1.772	30	45
50 Vdc; 63 Vdc Surge							
2,200	LPW222M1HN25V-W	0.226	1.92	0.866	0.984	22	25
2,200	LPW222M1HO25V-W	0.226	1.98	0.984	0.984	25	25
3,300	LPW332M1HN35V-W	0.151	2.51	0.866	1.378	22	35
3,300	LPW332M1HP25V-W	0.151	2.38	1.181	0.984	30	25
4,700	LPW472M1HN40V-W	0.106	2.89	0.866	1.575	22	40
4,700	LPW472M1HQ25V-W	0.106	2.99	1.378	0.984	35	25

Cap (µF)	Catalog Part Number	Max ESR @ 120 Hz +25 °C (Ω)	Max Ripple @ 120 Hz +85 °C (A)	Size (Inches) D	Size (Inches) L	Size (mm) D	Size (mm) L
50 Vdc; 63 Vdc Surge							
6,800	LPW682M1HO45V-W	.073	3.37	0.984	1.772	25	45
6,800	LPW682M1HQ30V-W	0.073	3.46	1.378	1.181	35	30
8,200	LPW822M1HO50V-W	0.061	3.62	0.984	1.969	25	50
8,200	LPW822M1HQ35V-W	0.061	3.79	1.378	1.378	35	35
10,000	LPW103M1HP45V-W	0.050	3.72	1.181	1.772	30	45
63 Vdc; 79 Vdc Surge							
1,000	LPW102M1JN25V-W	0.414	1.42	0.866	0.984	22	25
1,000	LPW102M1JO25V-W	0.414	1.46	0.984	0.984	25	25
1,500	LPW152M1JN25V-W	0.276	1.74	0.866	0.984	22	25
1,500	LPW152M1JP25V-W	0.276	1.81	1.181	0.984	30	25
2,200	LPW222M1JN30V-W	0.226	2.08	0.866	1.181	22	30
2,200	LPW222M1JP25V-W	0.226	2.10	1.181	0.984	30	25
3,300	LPW332M1JN45V-W	0.151	2.81	0.866	1.772	22	45
3,300	LPW332M1JQ25V-W	0.151	2.76	1.378	0.984	35	25
4,700	LPW472M1JO45V-W	0.106	3.11	0.984	1.772	25	45
4,700	LPW472M1JQ30V-W	0.106	3.20	1.378	1.181	35	30
6,800	LPW682M1JP45V-W	0.073	3.54	1.181	1.772	30	45

Cap (µF)	Catalog Part Number	Max ESR @ 120 Hz +25 °C (Ω)	Max Ripple @ 120 Hz +85 °C (A)	Size (Inches) D	Size (Inches) L	Size (mm) D	Size (mm) L
100 Vdc; 125 Vdc Surge							
820	LPW821M2AN30V-W	0.404	1.55	0.866	1.181	22	30
820	LPW821M2AO25V-W	0.404	1.54	0.984	0.984	25	25
1,000	LPW102M2AN30V-W	0.332	1.71	0.866	1.181	22	30
1,000	LPW102M2AP25V-W	0.332	2.20	1.181	0.984	30	25
1,500	LPW152M2AN40V-W	0.276	2.38	0.866	1.575	22	40
1,500	LPW152M2AQ30V-W	0.276	2.54	1.378	1.181	35	30
2,200	LPW222M2AO45V-W	0.188	2.77	0.984	1.772	25	45
2,200	LPW222M2AQ30V-W	0.188	3.07	1.378	1.181	35	30
3,300	LPW332M2AP45V-W	0.126	3.27	1.181	1.772	30	45

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