

Type LP Radial Snap-In Capacitors

MALLORY



- 105°C - Long Life
- 22 to 35 mm Diameters
10 mm Lead Spacing
- High Reliability
- Stable ESR
- Ideally Suited for Use in
Switchable Power Supplies

GENERAL SPECIFICATIONS

Operating Temperature:
-40°C to +105°C

Voltage Range:
16 WVDC to 250 WVDC

Capacitance Range:
100 μ F to 47,000 μ F

Capacitance Tolerance:
 $\pm$ 20% (Standard)

DC Leakage Current:
 $I = .02 CV$

C = Capacitance in μ F

V = Rated Voltage

I = Leakage Current in μ A

QA Stability Test:

Load Life: Apply WVDC for
1,000 hrs at 105°C

- Capacitance change $\pm$ 20%
from initial limits
- DC leakage current meets
initial limits
- ESR $\leq$ 200% of initial
measured value

Shelf Life: 500 hrs, No Voltage
Applied @ 105°C

- Capacitance change $\pm$ 20%
from initial limits
- DC leakage current $\leq$ 200%
of initial measured value
- ESR $\leq$ 200% of initial
measured value

The maximum ripple current at 105°C and 120 Hz for LP capacitors is shown in the Standard Rating Table. Maximum ripple current may be adjusted by the multipliers in the following tables.

Rated WVDC	Ripple Multipliers					
	50 Hz	1000Hz	300Hz	1000Hz	10kHz	100kHz
10 to 50	.90	1.0	1.03	1.05	1.10	1.10
63 to 100	.85	1.0	1.07	1.13	1.19	1.20
160 to 250	.80	1.0	1.15	1.25	1.35	1.40

Cap μF	Max ESR Ohms @120Hz 25°C	Max Ripple Amps @120Hz 105°C	Size (inches)		Size (millimeters)		Catalog Number
			D	L	D	L	
16 WVDC; 25 VDC Surge							
4,700	.141	1.200	.866	.984	22	25	LP472M016A1P3
5,600	.120	1.429	.984	.984	25	25	LP562M016C1P3
8,200	.081	1.820	.866	1.378	22	35	LP822M016A5P3
8,200	.080	1.771	1.181	.984	30	25	LP822M016E1P3
12,000	.055	2.380	1.181	1.181	30	30	LP123M016E3P3
15,000	.046	3.000	1.378	1.181	35	30	LP153M016H3P3
22,000	.030	3.530	1.181	1.575	30	40	LP223M016E7P3
27,000	.025	4.270	1.378	1.575	35	40	LP273M016H7P3
33,000	.020	5.000	1.378	1.969	35	50	LP333M016H9P3

25 WVDC; 32 VDC Surge							
2,700	.180	1.000	.984	.984	25	25	LP272M025C1P3
3,300	.151	1.160	.866	.984	22	25	LP332M025A1P3
3,300	.150	1.143	.984	.984	25	25	LP332M025C1P3
4,700	.106	1.480	.984	.984	25	25	LP472M025C1P3
5,600	.090	1.857	1.181	.984	30	25	LP562M025E1P3
5,600	.089	1.730	.984	1.181	25	30	LP562M025C3P3
6,800	.073	1.940	.984	1.378	25	35	LP682M025C5P3
10,000	.050	3.333	1.378	1.181	35	30	LP103M025H3P3
12,000	.041	2.970	1.378	1.181	35	30	LP123M025H3P3
15,000	.033	3.360	1.181	1.575	30	40	LP153M025E7P3
22,000	.023	4.857	1.378	1.969	35	50	LP223M025H9P3

35 WVDC; 44 VDC Surge							
1,800	.188	1.040	.866	.984	22	25	LP182M035A1P3
2,700	.155	1.257	.984	.984	25	25	LP272M035C1P3
3,900	.108	1.571	1.181	.984	30	25	LP392M035E1P3
5,600	.074	2.050	1.181	1.181	30	30	LP562M035E3P3
6,800	.060	2.286	1.181	1.378	30	35	LP682M035E5P3
6,800	.061	2.320	.984	1.575	25	40	LP682M035C7P3
8,200	.051	2.690	1.378	1.181	35	30	LP822M035H3P3
10,000	.041	3.000	1.181	1.575	30	40	LP103M035E7P3
12,000	.035	3.590	1.378	1.575	35	40	LP123M035H7P3
15,000	.028	4.000	1.378	1.969	35	50	LP153M035H9P3

Ambient Temperature	Ripple Multiplier
+85°C	1.65
+65°C	2.25
+45°C	2.55

Dissipation Factor @ 120Hz, 25°C				
WV	16	25 - 35	50 - 63	100 - 250
DF(%)	30	25	20	15

For capacitors whose capacitance value exceeds 1000 μ F, the value of DF(%) is increased 2% for every additional 1000 μ F.

Cap μF	Max ESR Ohms @120Hz 25°C	Max Ripple Amps @120Hz 105°C	Size (inches)		Size (millimeters)		Catalog Number
			D	L	D	L	
50 WVDC; 63 VDC Surge							
1,200	.280	.860	.866	.984	22	25	LP122M050A1P3
1,500	.225	.983	.866	.984	22	25	LP152M050A1P3
2,200	.151	1.330	.866	1.378	22	35	LP222M050A5P3
2,200	.150	1.429	1.181	.984	30	25	LP222M050E1P3
3,300	.101	1.76	1.181	1.181	30	30	LP332M050E3P3
3,300	.101	1.710	.984	1.378	25	35	LP332M050C5P3
3,300	.101	1.710	.984	1.181	25	30	LP332M050C3P3
3,900	.085	1.970	.984	1.575	25	40	LP392M050C7P3
4,700	.071	2.270	1.378	1.181	35	30	LP472M050H3P3
5,600	.059	2.600	1.378	1.378	35	35	LP562M050H5P3
6,800	.049	3.160	1.181	1.575	30	40	LP682M050E7P3
6,800	.049	3.160	1.181	1.969	30	50	LP682M050E9P3
8,200	.040	3.429	1.378	1.969	35	50	LP822M050H9P3

63 WVDC; 75 VDC Surge							
820	.300	.770	.866	.984	22	25	LP821M063A1P3
1,200	.210	.990	.984	.984	25	25	LP122M063C1P3
1,800	.138	1.340	.866	1.575	22	40	LP182M063A7P3
1,800	.140	1.371	1.181	.984	30	25	LP182M063E1P3
2,200	.113	1.550	1.181	1.181	30	30	LP222M063E3P3
3,300	.076	1.200	1.378	1.181	35	30	LP332M063H3P3
4,700	.053	2.840	1.181	1.969	30	50	LP472M063E9P3
6,800	.037	3.360	1.378	1.969	35	50	LP682M063H9P3

100 WVDC; 125 VDC Surge							
820	.300	.980	1.181	.984	30	25	LP821M100E1P3
2,200	.113	2.030	1.378	1.575	35	40	LP222M100H7P3
2,700	.092	2.320	1.378	1.969	35	50	LP272M100H9P3
2,700	.092	2.320	1.378	1.575	35	40	LP272M100H7P3

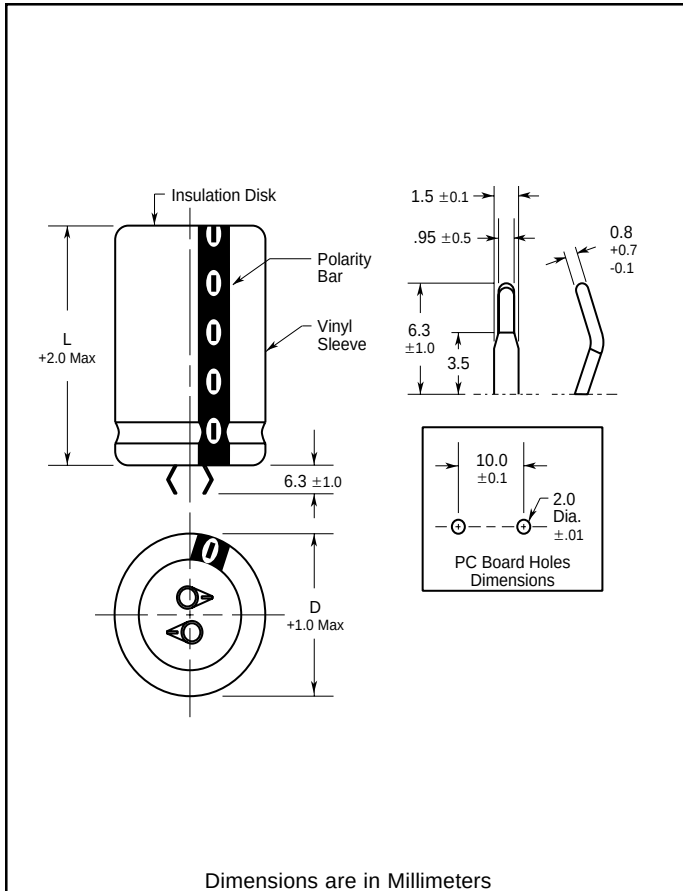
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Cap μF	Max ESR Ohms @120Hz 25°C	Max Ripple Amps @120Hz 105°C	Size (inches)		Size (millimeters)		Catalog Number
			D	L	D	L	
200 WVDC; 250 VDC Surge							
150	1.650	.509	.984	.984	25	25	LP151M200C1P3
150	1.650	.509	.866	.984	22	25	LP151M200A1P3
180	1.400	.571	.984	.984	25	25	LP181M200C1P3
220	1.100	.646	.984	.984	25	25	LP221M200C1P3
220	1.100	.646	1.181	.984	30	25	LP221M200E1P3
220	1.130	.660	.866	1.181	22	30	LP221M200A3P3
270	.920	.790	1.181	.984	30	25	LP271M200E1P3
270	.920	.790	.984	1.181	25	30	LP271M200C3P3
330	.750	.886	1.181	1.181	30	30	LP331M200E3P3
390	.640	.980	.984	1.378	25	35	LP391M200C5P3
470	.540	1.143	1.181	1.378	30	35	LP471M200E5P3
470	.540	1.140	1.181	.984	30	25	LP471M200E1P3
470	.540	1.143	1.378	1.181	35	30	LP471M200H3P3
560	.440	1.310	1.378	1.181	35	30	LP561M200H3P3
680	.370	1.520	1.181	1.181	30	30	LP681M200E3P3
680	.370	1.510	1.181	1.378	30	35	LP681M200E5P3
680	.370	1.510	1.378	.984	35	25	LP681M200H1P3
820	.300	1.750	1.378	1.575	35	40	LP821M200H7P3
820	.300	1.750	1.378	1.181	35	30	LP821M200H3P3
1,000	.250	2.114	1.378	1.969	35	50	LP102M200H9P3
1,000	.250	2.114	1.378	1.378	35	35	LP102M200H5P3
1,200	.165	2.810	1.181	1.969	30	50	LP122M200E9P3
1,200	.165	2.740	1.378	1.378	35	35	LP122M200H5P3
1,500	.134	3.330	1.378	1.772	35	45	LP152M200H4P3
1,800	.112	3.800	1.378	1.969	35	50	LP182M200H9P3

Cap μ F	Max ESR Ohms @120Hz 25°C	Max Ripple Amps @120Hz 105°C	Size (inches)		Size (millimeters)		Catalog Number
			D	L	D	L	
250 WVDC; 300 VDC Surge							
100	2.500	.410	.866	.984	22	25	LP101M250A1P3
150	1.660	.540	.984	.984	25	25	LP151M250C1P3
180	1.400	.686	.984	1.181	25	30	LP181M250C3P3
220	1.130	.710	1.181	.984	30	25	LP221M250E1P3
270	.922	.840	.984	1.181	25	30	LP271M250C3P3
330	.750	.914	1.181	1.181	30	30	LP331M250E3P3
390	.640	1.090	1.378	1.181	35	30	LP391M250H3P3
470	.530	1.260	1.181	1.575	30	40	LP471M250E7P3
470	.530	1.260	1.378	.984	35	25	LP471M250H1P3
560	.347	1.800	1.378	1.181	35	30	LP561M250H3P3
680	.370	1.920	1.181	1.969	30	50	LP681M250E9P3
680	.370	2.070	1.378	1.378	35	35	LP681M250H5P3
820	.243	2.400	1.378	1.575	35	40	LP821M250H7P3
1,000	.200	2.720	1.378	1.772	35	45	LP102M250H4P3
1,200	.165	3.100	1.378	1.969	35	50	LP122M250H9P3

Outline Dimensions



Part Number Nomenclature

NACC Catalog Number: LP 562 M 016 C1 P 3

TYPE NUMBER: _____
Identifies the basic type

CAPACITANCE: _____
Expressed in microfarads
The first two digits are significant figures
The third digit is the number of zeros

CAPACITANCE TOLERANCE: _____
M = $\pm 20\%$

DC VOLTAGE RATING: _____
Zeros are used to precede the voltage rating where necessary to complete the three digit block
The letter 'R' indicates a decimal point

CASE CODE: _____
See chart

POLARITY: _____

INSULATING SLEEVE: _____
3 = PVC Sleeve

Case Code Chart

Millimeters
(Inches)

Diameter mm (Inches)	Length					
	25 (1.00)	30 (1.18)	35 (1.38)	40 (1.57)	45 (1.77)	50 (2.00)
22 (.87)	A1	A3	A5	A7	A4	A9
25 (1.00)	C1	C3	C5	C7	C4	C9
30 (1.18)	E1	E3	E5	E7	E4	E9
35 (1.38)	H1	H3	H5	H7	H4	H9