

# LMB

## +105°C 3000 hour Snap-Mount Aluminum Electrolytic Capacitors



### FEATURES

- Long life (12000 hours @ +85°C)
- High ripple current ratings
- Multiple Case Size
- 2, 3 and 4 leads available
- Lead free leads
- PC board mountable

### SPECIFICATIONS

Capacitance Tolerance		±20% at 120Hz, 20°C											
Operating Temperature Range		-40°C to +105°C											
Surge Voltage	WVDC	16	25	35	50	63	100	160	200	250	350	400	450
	SVDC	20	32	44	63	79	125	200	250	300	400	450	500
Dissipation Factor 120Hz, 20°C	WVDC	16	25	35	50	50	63	63	80-100	80-100	160	200 to 450	
	Capacitance	all	all	all	≤6800	>6800	≤6800	>6800	≤3300	>3300	all	all	
	tan δ	.5	.4	.35	.3	.35	.25	.35	.2	.25	.15	.15	
Leakage Current	Time	5 minutes											
		.02CV or 3000µA, whichever is less											
Impedance Ratio 120Hz	WVDC	16	25	35	50	63	100	160	200	250	350	400	450
	-25°C/20°C	6	6	6	4	3	3	4	4	4	6	6	6
	-40°C/20°C	15	15	10	8	6	6	-	-	-	-	-	-
Load Life	3,000 hours at 105°C with rated WVDC and ripple current												
	Capacitance change Dissipation factor Leakage current						≤ 20% of initial measured value ≤175% of initial specified value ≤100% Initial specified value						
Shelf life	1,000 hours at 105°C with rated WVDC and ripple current												
	Capacitance change Dissipation factor Leakage current						≤ 20% of initial measured value ≤175% of initial specified value ≤The Initial specified value						
Ripple Current Multipliers	Voltage	Frequency (Hz)					Temperature (°C)						
		50	120	400	1k	10k+	105	85	70	60	≤45		
	≤100V	.8	1.0	1.1	1.2	1.2	1.25	1.8	2.0	2.2	2.5		
>100V	.8	1.0	1.1	1.3	1.4	1.5	1.8	2.0	2.2	2.5			

### SPECIAL ORDER OPTIONS

(See pages 33 thru 37)

- 3 and 4 leaded terminations
- Epoxy end sealed
- Special tolerances: ±10%(K), -10% + 30%(Q)
- Mylar sleeve

## PHYSICAL DIMENSIONS

WVDC (SV) μF	16 (20)	25 (32)	35 (44)	50 (63)	63 (79)	80 (100)	100 (125)	160 (200)	200 (250)	250 (300)	350 (400)	400 (450)	450 (500)
47													22x25
68												22x25	22x30 25x25
82											22x25	22x30 25x25	22x35 25x30
100											22x30 25x25	22x30 25x25	22x35 25x35 30x25
120											22x30 25x25	22x35 25x25 30x25	22x45 25x35 30x30 35x25
150											22x35 25x30 30x25	22x40 25x30 30x25	25x40 30x35 35x30
180											22x40 25x35 30x30	22x45 25x35 30x30 35x25	25x40 30x35 35x30
220								22x25	22x25 25x25	22x50 25x40 30x30 35x25	25x40 30x30 35x25	30x35 35x35	
270								22x25	22x35 25x25	25x45 30x35 35x30	25x45 30x35 35x30	35x35 30x45	
330								22x25	22x30 25x25 30x25	22x35 25x30 30x25	25x50 30x40 35x30	30x40 35x30	35x45
390								22x30 25x25	22x35 25x25	22x40 25x35 30x25	30x45 35x35	35x35	35x50
470								22x30 25x25	22x40 25x30 30x25	22x50 25x40 30x30 35x25	35x40	35x40	
560								22x35 25x30 30x25	22x40 25x35 30x30	25x45 30x35 35x25	35x45	35x45	
680								22x40 25x35 30x25	22x45 25x35 30x30 35x25	25x50 30x35 35x30			
820								22x45 25x35 30x30 35x25	25x45 30x30 35x30	30x45 35x35			

Convert to inches, divide by 25.4.

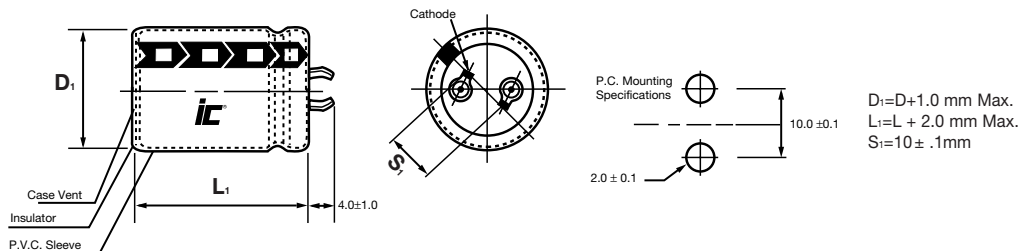
DxL(mm)

## PHYSICAL DIMENSIONS

WVDC (SV) μF	16 (20)	25 (32)	35 (44)	50 (63)	63 (79)	80 (100)	100 (125)	160 (200)	200 (250)	250 (300)	350 (400)	400 (450)	450 (500)
1000				→	22x25	22x25 25x25	22x30 25x25	25x45 30x35 35x25	25x50 30x35 35x30	35x40			
1200							→	25x50 30x35 35x30	30x40 35x35	35x45			
1500			→	22x25	22x30 25x25	22x35 25x30	22x40 25x35 30x25	30x45 35x35	35x45	35x50			
1800							→	35x40	35x50				
2200		→	22x25	22x30 25x25	22x35 25x30 30x25	22x50 25x35 30x30 35x25	25x45 30x35						
3300	→	22x25	22x25 25x25	22x35 25x30 30x25	22x45 25x35 30x30 35x25	25x45 30x35 35x30	30x45 35x35						
4700	22x25	22x25 25x25	22x35 25x25 30x25	22x45 25x35 30x30 35x25	25x50 30x35 35x30	30x50 35x40	35x45						
6800	22x25 25x30	22x30 25x25 30x25	22x40 25x35 30x30 35x25	25x45 30x35 35x30	30x45 35x40	35x50							
10000	22x30 25x25 30x25	22x40 25x35 30x30 35x25	25x45 30x35 35x30	30x45 35x40	35x50								
15000	25x35 30x30	25x45 30x35 35x30	30x45 35x40	35x50									
22000	30x35 35x30	30x45 35x35											
33000	35x35	35x50											

Convert to inches, divide by 25.4.

DxL(mm)



3 and 4 pin mounting styles available on special order. Contact I.C. for details

## STANDARD PART LISTING

Capacitance (µF)	WVDC	IC <sup>®</sup> PART NUMBER	Maximum ESR Ω 120Hz, +20°C	Maximum RMS Ripple Current (A) 120Hz, +105°C	Dimensions DxL (mm)
47	450	476LMB450M2BC	5.291	0.39	22x25
68	400	686LMB400M2BC	3.657	0.53	22x25
68	450	686LMB450M2BD	3.657	0.54	22x30
68	450	686LMB450M2CC	3.657	0.5	25x25
82	350	826LMB350M2BC	3.033	0.43	22x25
82	400	826LMB400M2BD	3.033	0.56	22x30
82	400	826LMB400M2CC	3.033	0.56	25x25
82	450	826LMB450M2BE	3.033	0.61	22x35
82	450	826LMB450M2CD	3.033	0.6	25x30
100	350	107LMB350M2BD	2.487	0.51	22x30
100	350	107LMB350M2CC	2.487	0.51	25x25
100	400	107LMB400M2BD	2.487	0.68	22x30
100	400	107LMB400M2CC	2.487	0.68	25x25
100	450	107LMB450M2BE	2.487	0.69	22x35
100	450	107LMB450M2CE	2.487	0.7	25x35
100	450	107LMB450M2DC	2.487	0.68	30x25
120	350	127LMB350M2BD	2.072	0.55	22x30
120	350	127LMB350M2CC	2.072	0.55	25x25
120	400	127LMB400M2BE	2.072	0.72	22x35
120	400	127LMB400M2CC	2.072	0.73	25x25
120	400	127LMB400M2DC	2.072	0.75	30x25
120	450	127LMB450M2BG	2.072	0.8	22x45
120	450	127LMB450M2CE	2.072	0.77	25x35
120	450	127LMB450M2DD	2.072	0.8	30x30
120	450	127LMB450M2EC	2.072	0.82	35x25
150	350	157LMB350M2BE	1.658	0.66	22x35
150	350	157LMB350M2CD	1.658	0.67	25x30
150	400	157LMB400M2BF	1.658	0.85	22x40
150	400	157LMB400M2CD	1.658	0.85	25x30
150	400	157LMB400M2DC	1.658	0.9	30x25
150	450	157LMB450M2CF	1.658	0.96	25x40
150	450	157LMB450M2DE	1.658	0.96	30x35
150	450	157LMB450M2ED	1.658	0.99	35x30
180	350	187LMB350M2BF	1.382	0.77	22x40
180	350	187LMB350M2CE	1.382	0.78	25x35
180	350	187LMB350M2DD	1.382	0.82	30x30
180	400	187LMB400M2BG	1.382	0.98	22x45
180	400	187LMB400M2CE	1.382	1	25x35
180	400	187LMB400M2DD	1.382	0.99	30x30
180	400	187LMB400M2EC	1.382	1.01	35x25
180	450	187LMB450M2CF	1.382	1.1	25x40

Capacitance (µF)	WVDC	IC <sup>®</sup> PART NUMBER	Maximum ESR Ω 120Hz, +20°C	Maximum RMS Ripple Current (A) 120Hz, +105°C	Dimensions DxL (mm)
180	450	187LMB450M2CF	1.382	1.1	25x40
180	450	187LMB450M2DE	1.382	1.05	30x35
220	200	227LMB200M2BC	1.130	0.97	22x25
220	250	227LMB250M2BC	1.130	0.94	22x25
220	250	227LMB250M2CC	1.130	0.91	25x25
220	350	227LMB350M2BH	1.130	0.94	22x50
220	350	227LMB350M2CF	1.130	0.91	25x40
220	350	227LMB350M2DD	1.130	0.9	30x30
220	350	227LMB350M2EC	1.130	0.92	35x25
220	400	227LMB400M2CF	1.130	1.15	25x40
220	400	227LMB400M2DD	1.130	1.1	30x30
220	400	227LMB400M2EC	1.130	1.1	35x25
220	450	227LMB450M2DE	1.130	1.22	30x35
220	450	227LMB450M2EE	1.130	1.27	35x35
270	200	277LMB200M2BC	0.921	1.04	22x25
270	250	277LMB250M2BE	0.921	1.13	22x35
270	250	277LMB250M2CC	0.921	1.11	25x25
270	350	277LMB350M2CG	0.921	1.07	25x45
270	350	277LMB350M2DE	0.921	1.06	30x35
270	350	277LMB350M2ED	0.921	1.1	35x30
270	400	277LMB400M2CG	0.921	1.3	25x45
270	400	277LMB400M2DE	0.921	1.26	30x35
270	400	277LMB400M2ED	0.921	1.27	35x30
270	450	277LMB450M2EE	0.921	1.49	35x35
270	450	277LMB450M2DG	0.921	1.48	30x45
330	160	337LMB160M2BC	0.754	1.16	22x25
330	200	337LMB200M2BD	0.754	1.21	22x30
330	200	337LMB200M2CC	0.754	1.44	25x25
330	250	337LMB250M2BE	0.754	1.23	22x35
330	250	337LMB250M2CD	0.754	1.28	25x30
330	250	337LMB250M2DC	0.754	1.24	30x25
330	350	337LMB350M2CH	0.754	1.23	25x50
330	350	337LMB350M2DF	0.754	1.24	30x40
330	350	337LMB350M2ED	0.754	1.21	35x30
330	400	337LMB400M2DF	0.754	1.5	30x40
330	400	337LMB400M2ED	0.754	1.5	35x30
330	450	337LMB450M2EG	0.754	1.72	35x45
390	160	397LMB160M2BD	0.638	1.27	22x30
390	160	397LMB160M2CC	0.638	1.03	25x25
390	200	397LMB200M2BE	0.638	1.31	22x35
390	200	397LMB200M2CC	0.638	1.29	25x25

## STANDARD PART LISTING

Capacitance (µF)	WVDC	IC PART NUMBER	Maximum ESR Ω 120Hz,+20°C	Maximum RMS Ripple Current (A) 120Hz,+105°C	Dimensions DxL (mm)
390	250	397LMB250M2BF	0.638	1.47	22x40
390	250	397LMB250M2CE	0.638	1.46	25x35
390	250	397LMB250M2DC	0.638	1.48	30x25
390	350	397LMB350M2DG	0.638	1.42	30x45
390	350	397LMB350M2EE	0.638	1.4	35x35
390	400	397LMB400M2EE	0.638	1.7	35x35
390	450	397LMB450M2EH	0.638	1.96	35x50
470	160	477LMB160M2BD	0.529	1.51	22x30
470	160	477LMB160M2CC	0.529	1.5	25x25
470	200	477LMB200M2BF	0.529	1.52	22x40
470	200	477LMB200M2CD	0.529	1.45	25x30
470	200	477LMB200M2DC	0.529	1.5	30x25
470	250	477LMB250M2BH	0.529	1.66	22x50
470	250	477LMB250M2CF	0.529	1.61	25x40
470	250	477LMB250M2DD	0.529	1.59	30x30
470	250	477LMB250M2EC	0.529	1.63	35x25
470	350	477LMB350M2EF	0.529	1.62	35x40
470	400	477LMB400M2EF	0.529	2.07	35x40
560	160	567LMB160M2BE	0.444	1.66	22x35
560	160	567LMB160M2CD	0.444	1.65	25x30
560	160	567LMB160M2DC	0.444	1.66	30x25
560	200	567LMB200M2BF	0.444	1.7	22x40
560	200	567LMB200M2CE	0.444	1.68	25x35
560	200	567LMB200M2DD	0.444	1.7	30x30
560	250	567LMB250M2CG	0.444	1.85	25x45
560	250	567LMB250M2DE	0.444	1.85	30x35
560	250	567LMB250M2EC	0.444	1.78	35x25
560	350	567LMB350M2EG	0.444	1.86	35x45
560	400	567LMB400M2EG	0.444	2.36	35x45
680	160	687LMB160M2BF	0.366	1.8	22x40
680	160	687LMB160M2CE	0.366	2	25x35
680	160	687LMB160M2DC	0.366	1.82	30x25
680	200	687LMB200M2BG	0.366	1.82	22x45
680	200	687LMB200M2CE	0.366	1.79	25x35
680	200	687LMB200M2DD	0.366	1.84	30x30
680	200	687LMB200M2EC	0.366	1.8	35x25
680	250	687LMB250M2CH	0.366	2.14	25x50
680	250	687LMB250M2DE	0.366	2.04	30x35
680	250	687LMB250M2ED	0.366	2.1	35x30
820	160	827LMB160M2BG	0.303	2.02	22x45
820	160	827LMB160M2CE	0.303	2	25x35
820	160	827LMB160M2DD	0.303	2.03	30x30

Capacitance (µF)	WVDC	IC PART NUMBER	Maximum ESR Ω 120Hz,+20°C	Maximum RMS Ripple Current (A) 120Hz,+105°C	Dimensions DxL (mm)
820	160	827LMB160M2EC	0.303	2	35x25
820	200	827LMB200M2CG	0.303	2.07	25x45
820	200	827LMB200M2DD	0.303	2.05	30x30
820	200	827LMB200M2ED	0.303	2.15	35x30
820	250	827LMB250M2DG	0.303	2.49	30x45
820	250	827LMB250M2EE	0.303	2.45	35x35
1000	63	108LMB063M2BC	0.414	0.91	22x25
1000	80	108LMB080M2BC	0.332	1.2	22x25
1000	80	108LMB080M2CC	0.332	0.99	25x25
1000	100	108LMB100M2BD	0.332	1.51	22x30
1000	100	108LMB100M2CC	0.332	1.55	25x25
1000	160	108LMB160M2CG	0.249	2.22	25x45
1000	160	108LMB160M2DE	0.249	2.21	30x35
1000	160	108LMB160M2EC	0.249	2.24	35x25
1000	200	108LMB200M2CH	0.249	2.53	25x50
1000	200	108LMB200M2DE	0.249	2.4	30x35
1000	200	108LMB200M2ED	0.249	2.58	35x30
1000	250	108LMB250M2EF	0.249	2.56	35x40
1200	160	128LMB160M2CH	0.207	2.43	25x50
1200	160	128LMB160M2DE	0.207	2.4	30x35
1200	160	128LMB160M2ED	0.207	2.41	35x30
1200	200	128LMB200M2DF	0.207	2.8	30x40
1200	200	128LMB200M2EE	0.207	2.85	35x35
1200	250	128LMB250M2EG	0.207	2.85	35x45
1500	50	158LMB050M2BC	0.332	1.05	22x25
1500	63	158LMB063M2BD	0.276	1.43	22x30
1500	63	158LMB063M2CC	0.276	1.42	25x25
1500	80	158LMB080M2BE	0.221	1.6	22x35
1500	80	158LMB080M2CD	0.221	1.63	25x30
1500	80	158LMB080M2DC	0.221	1.21	30x25
1500	100	158LMB100M2BF	0.221	1.94	22x40
1500	100	158LMB100M2CE	0.221	2.01	25x35
1500	100	158LMB100M2DC	0.221	1.98	30x25
1500	160	158LMB160M2DG	0.166	2.88	30x45
1500	160	158LMB160M2EE	0.166	2.84	35x35
1500	200	158LMB200M2EG	0.166	3.25	35x45
1500	250	158LMB250M2EH	0.166	3.28	35x50
1800	160	188LMB160M2EF	0.138	3.28	35x40
1800	200	188LMB200M2EH	0.138	3.68	35x50
2200	35	228LMB035M2BC	0.264	1.17	22x25
2200	50	228LMB050M2BD	0.226	1.31	22x30
2200	50	228LMB050M2CC	0.226	1.25	25x25

## STANDARD PART LISTING

Capacitance (µF)	WVDC	IC PART NUMBER	Maximum ESR Ω 120Hz, +20°C	Maximum RMS Ripple Current (A) 120Hz, +105°C	Dimensions DxL (mm)
2200	63	228LMB063M2BE	0.188	1.8	22x35
2200	63	228LMB063M2CD	0.188	1.35	25x30
2200	63	228LMB063M2DC	0.188	1.73	30x25
2200	80	228LMB080M2BH	0.151	2.04	22x50
2200	80	228LMB080M2CE	0.151	1.98	25x35
2200	80	228LMB080M2DD	0.151	2.05	30x30
2200	80	228LMB080M2EC	0.151	1.61	35x25
2200	100	228LMB100M2CG	0.151	2.55	25x45
2200	100	228LMB100M2DE	0.151	2.56	30x35
3300	25	338LMB025M2BC	0.201	1.34	22x25
3300	35	338LMB035M2BC	0.176	1.43	22x25
3300	35	338LMB035M2CC	0.176	1.36	25x25
3300	50	338LMB050M2BE	0.151	1.94	22x35
3300	50	338LMB050M2CD	0.151	1.98	25x30
3300	50	338LMB050M2DC	0.151	1.5	30x25
3300	63	338LMB063M2BG	0.126	2.31	22x45
3300	63	338LMB063M2CE	0.126	2.23	25x35
3300	63	338LMB063M2DD	0.126	2.19	30x30
3300	63	338LMB063M2EC	0.126	1.73	35x25
3300	80	338LMB080M2CG	0.100	2.74	25x45
3300	80	338LMB080M2DE	0.100	2.75	30x35
3300	80	338LMB080M2ED	0.100	2.70	35x30
3300	100	338LMB100M2DG	0.100	3.3	30x45
3300	100	338LMB100M2EE	0.100	3.28	35x35
4700	16	478LMB016M2BC	0.176	1.36	22x25
4700	25	478LMB025M2BC	0.141	1.58	22x25
4700	25	478LMB025M2CC	0.141	1.51	25x25
4700	35	478LMB035M2BE	0.123	2	22x35
4700	35	478LMB035M2CC	0.123	1.73	25x25
4700	35	478LMB035M2DC	0.123	1.56	30x25
4700	50	478LMB050M2BG	0.106	2.54	22x45
4700	50	478LMB050M2CE	0.106	2.58	25x35
4700	50	478LMB050M2DD	0.106	2.53	30x30
4700	50	478LMB050M2EC	0.106	1.86	35x25
4700	63	478LMB063M2CH	0.088	2.93	25x50
4700	63	478LMB063M2DE	0.088	2.9	30x35
4700	63	478LMB063M2ED	0.088	2.81	35x30
4700	80	478LMB080M2DH	0.071	3.5	30x50
4700	80	478LMB080M2EF	0.071	3.5	35x40
4700	100	478LMB100M2EG	0.088	4.12	35x45
6800	16	688LMB016M2BC	0.122	1.74	22x25
6800	16	688LMB016M2CD	0.122	1.67	25x30

Capacitance (µF)	WVDC	IC PART NUMBER	Maximum ESR Ω 120Hz, +20°C	Maximum RMS Ripple Current (A) 120Hz, +105°C	Dimensions DxL (mm)
6800	25	688LMB025M2BD	0.098	1.85	22x30
6800	25	688LMB025M2CC	0.098	1.88	25x25
6800	25	688LMB025M2DC	0.098	1.75	30x25
6800	35	688LMB035M2BF	0.085	2.35	22x40
6800	35	688LMB035M2CE	0.085	2.27	25x35
6800	35	688LMB035M2DD	0.085	2.3	30x30
6800	35	688LMB035M2EC	0.085	1.96	35x25
6800	50	688LMB050M2CG	0.073	3.32	25x45
6800	50	688LMB050M2DE	0.073	3.34	30x35
6800	50	688LMB050M2ED	0.073	3.25	35x30
6800	63	688LMB063M2EF	0.061	3.68	35x40
6800	63	688LMB063M2DG	0.061	3.71	30x45
6800	80	688LMB080M2EH	0.061	4.12	35x50
10000	16	109LMB016M2BD	0.083	2.09	22x30
10000	16	109LMB016M2CC	0.083	2.05	25x25
10000	16	109LMB016M2DC	0.083	1.77	30x25
10000	25	109LMB025M2BF	0.066	2.6	22x40
10000	25	109LMB025M2CE	0.066	2.55	25x35
10000	25	109LMB025M2DD	0.066	2.6	30x30
10000	25	109LMB025M2EC	0.066	2.15	35x25
10000	35	109LMB035M2CG	0.058	3	25x45
10000	35	109LMB035M2DE	0.058	2.95	30x35
10000	35	109LMB035M2ED	0.058	2.2	35x30
10000	50	109LMB050M2DG	0.058	4.04	30x45
10000	50	109LMB050M2EF	0.058	4.02	35x40
10000	63	109LMB063M2EH	0.058	4.64	35x50
15000	16	159LMB016M2CE	0.055	2.6	25x35
15000	16	159LMB016M2DC	0.055	2.5	30x25
15000	16	159LMB016M2ED	0.055	2.36	35x30
15000	25	159LMB025M2CG	0.044	3.25	25x45
15000	25	159LMB025M2DE	0.044	3.1	30x35
15000	25	159LMB025M2ED	0.044	3.25	35x30
15000	35	159LMB035M2DG	0.039	3.7	30x45
15000	35	159LMB035M2EF	0.039	3.65	35x40
15000	50	159LMB050M2EH	0.039	4.73	35x50
22000	16	229LMB016M2DE	0.038	3.35	30x35
22000	16	229LMB016M2ED	0.038	3.2	35x30
22000	25	229LMB025M2DG	0.030	2.44	30x45
22000	25	229LMB025M2EE	0.030	3.95	35x35
33000	16	339LMB016M2EE	0.025	4.21	35x35
33000	25	339LMB025M2EH	0.020	5.47	35x50