



# LB & LB-H Series

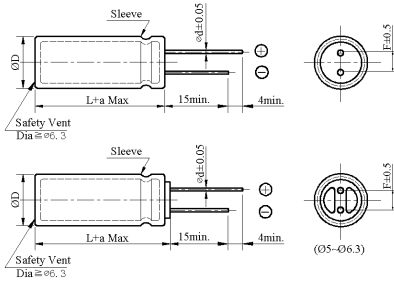


- Low leakage current at 85 °C & 105°C

◆ SPECIFICATIONS

Item	Performance Characteristics									
	LB					LB-H				
Series	LB					LB-H				
Category Temperature Range	-40 ~ +85°C					-40 ~ +105°C				
Working Voltage Range	6.3 ~ 100 Vdc									
Capacitance Range	0.47 ~ 4,700 µF									
Capacitance Tolerance	±20% (at 25°C and 120Hz)									
Dissipation Factor (tanδ) (at 25°C, 120Hz)	Rated Voltage (V)	6.3	10	16	25	35	50	63	80	100
	tanδ(Max)	0.22	0.19	0.16	0.14	0.12	0.10	0.10	0.10	0.10
The above values should be increased by 0.02 for every additional 1000µF										
Leakage Current	I=0.002CV or 0.4µA whichever is greater I : Leakage current (µA) C : Rated capacitance (µF) V : Rated voltage (V) Impress the rated voltage for 2 minutes									
Low Temperature Characteristics Impedance Ratio(MAX)	Rated voltage (V)	6.3	10	16	25	35	50	63	80	100
	Z(-40°C)/Z(+20°C)	12	10	8	5	4	3	3	3	3
(at 120Hz)										
Endurance	The following requirements shall be satisfied when the capacitor are restored to 25°C after the rated voltage applied for 2,000 hours at 85°C(LB) or 1,000 hours at 105°C(LB-H).									
	Capacitance change	≒ ±20% of the initial value								
	Dissipation factor(tanδ)	≒ 200% of the specified value								
	Leakage current	≒ specified value								
Shelf Life	The following requirements shall be satisfied when the capacitor are restored to 25°C after the rated voltage applied for 1,000 hours at 85°C(LB) or 500 hours at 105°C(LB-H) without voltage applied.									
	Capacitance change	≒ ±20% of the initial value								
	Dissipation factor(tanδ)	≒ 200% of the specified value								
	Leakage current	≒ 200% of the specified value								
Others	Conforms to JIS-C-5101-4 (1998), characteristic W									

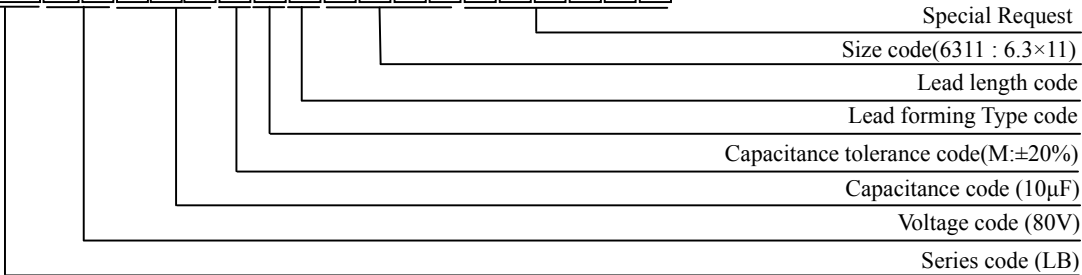
◆ DIMENSIONS (mm)



ΦD	5	6.3	8	10	12.5 L < 35	12.5 L ≥ 35	16	18
ΦD	ΦD + 0.5 Max							
Φd	0.5	0.5	0.6	0.6	0.6	0.8	0.8	0.8
F	2.0	2.5	3.5	5.0	5.0		7.5	7.5
a	L + 1.5 Max		≒ 35 L + 1.5 Max ≒ 40 L + 2.0 Max				L + 1.5 Max	

◆ PART NUMBER SYSTEM( Example : 80V 10µF )

L B 1 K 1 0 0 M N N 6 3 1 1





**LB Series**

◆ **Case size & Permissible rated ripple current: (mA rms) at 85°C / 120Hz**

uF \ Vdc	6.3		10		16		25		35	
	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC
15									5×11	48
22							5×11	60	6.3×11	72
33					5×11	66	6.3×11	82	6.3×11	88
47			5×11	72	6.3×11	90	6.3×11	96	8×11.5	120
68	5×11	86	6.3×11	104	6.3×11	122	8×11.5	132	8×11.5	162
100	5×11	114	6.3×11	120	8×11.5	156	8×11.5	162	10×12.5	204
150	6.3×11	146	8×11.5	160	8×11.5	210	10×12.5	238	10×16	285
220	6.3×11	180	8×11.5	204	10×12.5	270	10×16	312	10×20	366
330	8×11.5	270	10×12.5	294	10×16	360	10×20	414	12.5×20	498
470	10×12.5	318	10×16	396	10×16	468	12.5×20	552	12.5×25	642
680	10×16	384	10×20	504	12.5×20	636	12.5×20	780	12.5×25	864
1000	10×20	554	10×20	684	12.5×20	810	12.5×25	900	16×25	1044
1500	12.5×20	720	12.5×20	904	12.5×25	1032	16×31.5	1218	16×35.5	1338
2200	12.5×20	948	12.5×25	1152	16×25	1260	16×31.5	1482	18×35.5	1632
3300	16×25	1240	16×25	1434	16×31.5	1902	18×40	1956	18×40	2160
4700	16×31.5	1530	16×31.5	1700	18×35.5	2268	18×40	2568		

uF \ Vdc	50		63		80		100	
	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC	ΦD×L	RC
0.47							5×11	12
1.0							5×11	18
2.2	5×11	15	5×11	15	5×11	15	5×11	26
3.3	5×11	22	5×11	24	5×11	25	5×11	32
4.7	5×11	26	5×11	29	5×11	30	6.3×11	43
6.8	5×11	32	5×11	36	5×11	38	6.3×11	54
10	5×11	36	5×11	44	6.3×11	50	8×11.5	73
15	5×11	48	6.3×11	60	8×11.5	66	10×12.5	98
22	5×11	60	8×11.5	78	8×11.5	90	10×12.5	127
33	6.3×11	78	8×11.5	102	10×12.5	114	10×16	170
47	6.3×11	112	8×11.5	126	10×12.5	160	10×20	220
68	8×11.5	134	10×12.5	174	10×16	186	12.5×20	288
100	8×11.5	192	10×16	240	10×20	264	12.5×20	360
150	10×12.5	248	10×20	302	12.5×20	336	12.5×25	497
220	10×16	348	12.5×20	396	12.5×20	437	16×25	640
330	10×20	444	12.5×20	497	12.5×25	540	16×31.5	842
470	12.5×20	546	12.5×25	660	16×31.5	780	18×35.5	1068
680	16×25	782	16×25	870	16×35.5	966		
1000	16×25	1032	16×31.5	1200	18×35.5	1296		
1500	16×31.5	1224	18×35.5	1464				
2200	18×40	1584						
3300	18×40	1896						

◆ **RIPPLE CURRENT MULTIPLIERS**

**Frequency Multipliers**

Cap(uF)	Frequency (Hz)				
	50/60	120	1K	10K	100K
0.47 ~ 68	0.75	1.00	1.57	1.75	2.00
100 ~ 680	0.80	1.00	1.34	1.40	1.50
1000 ~ 4700	0.85	1.00	1.13	1.13	1.13