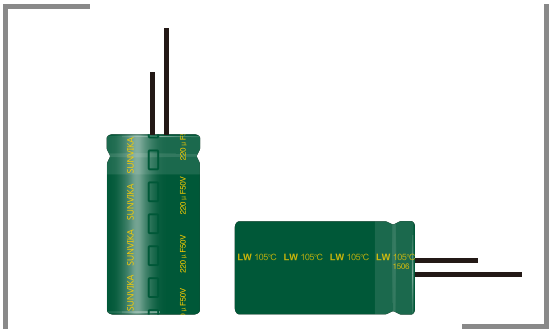
LW 系 列 SERIES

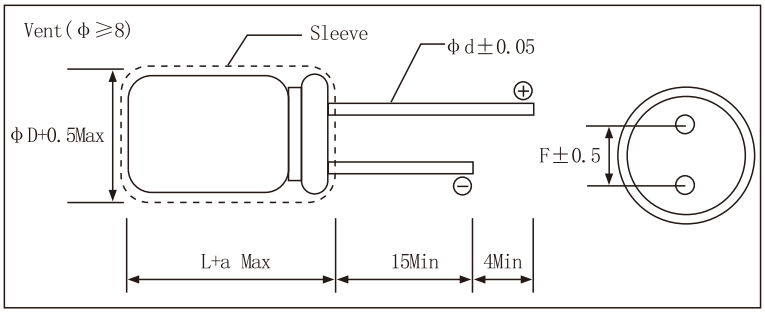
- 2000-5000h at 105℃
- Miniatured
- Low Impedance ,High Current
- Switching Power Supply



◆ SPECIFICATION

Items	Characteristics
Operating Temperature Range(℃)	−40～+105℃
Voltage range（V）	6.3～100V
Capacitance Range（μF）	0.47～18000μF
Capacitance Tolerance	±20%　　（at20℃,120Hz）
leakage current（μA）	After 2 minute at 20℃ application of rated voltage, leakage current is not more than 0.01CV or 3μA,whichever is greater C:Nominal Capacitance（μF）　　V :Rated Voltage (V)
Dissipation Factor(Tan δ)	WV(V): 6.3 / 10 / 16 / 25 / 35 / 50 / 63 / 100 Tan δ (max): 0.18 / 0.16 / 0.14 / 0.12 / 0.10 / 0.09 / 0.08 / 0.08 For Capacitances ＞1000μF add 0.02 to every 1000μF.（at 20℃,120Hz）
Low Temperature Characteristics	Rated Voltage (V): 6.3～100V Z−40℃/Z+20℃: 3 （at 120Hz）
Load Life	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjected to DCvoltage with the rated rippled current is applied for 2000−5000 hours at 105℃ Capacitance change: Within± 20%initial value D.F.(Tan δ): Not more than 200% of specified value leakage current: Not more than specified value Case Dia / Life time(hours): ΦD≤6.3: 2000; ΦD=8: 3000; ΦD=10: 4000; ΦD>10: 5000
Shelf Life	The following specifications shall be satisfied when the capacilors are restored to 20℃ after exposing them for 1,000 hours at 105℃ without voltage applied .Before the measurement , the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4. Capacitance change: Within± 20%initial value D.F.(Tan δ): Not more than 200% of specified value leakage current: Not more than 200% of specified value

◆ DIMENSIONS(mm)



ΦD	5	6.3	8	10	13	16	18
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
Φd	0.5	0.5	0.5	0.6	0.6	0.8	0.8
	1.5	1.5	1.5	2.0	2.0	2.0	2.0

◆ Frequency Coefficient

Frequency / Cap(μF)	120Hz	1KHz	10KHz	100KHz
0.47~180	0.40	0.75	0.90	1.00
220~560	0.50	0.83	0.93	1.00
680~1800	0.60	0.86	0.95	1.00
2200~3900	0.75	0.90	0.97	1.00
4700~18000	0.85	0.95	0.98	1.00

◆ Temperature Coefficient

Temperature(℃)	+70	+85	+105
Coefficient	1.96	1.68	1.00

LW 系列 SERIES

◆ STANDARD RATINGS

UR (Surge Voltage) Code	Rated Capaci-tance	Max ESR 20℃100KHz	Rated Ripple Current 105℃100KHz	Size φD×L
(V)	(μF)	(Ω)	(mA rms)	(mm)
6.3 (8)	150	0.75	175	5×11
	330	0.33	290	6.3×12
	470	0.18	400	6.3×15
	680	0.12	555	8×12
	820	0.090	760	10×12.5
	1000	0.090	730	8×16
	1200	0.080	810	8×20
		0.068	1050	10×16
	1500	0.052	1220	10×20
	2200	0.045	1440	10×25
	2700	0.037	1690	10×30
	3300	0.038	1660	13×20
	3900	0.030	1950	13×25
	4700	0.025	2310	13×30
	5600	0.022	2510	13×35
		0.029	2210	16×20
	6800	0.017	2870	13×40
		0.022	2560	16×25
		0.028	2490	18×20
	8200	0.019	3010	16×31.5
	10000	0.017	3150	16×35.5
		0.020	2740	18×25
	12000	0.015	3710	16×40
		0.018	3330	18×31.5
	15000	0.016	3680	18×35.5
	18000	0.015	3800	18×40
10 (13)	100	0.65	175	5×11
	220	0.32	290	6.3×12
	330	0.22	400	6.3×15
	470	0.13	555	8×12
	680	0.090	730	8×16
		0.090	760	10×12.5
	1000	0.080	810	8×20
		0.068	1050	10×16
	1200	0.052	1220	10×20
	1500	0.045	1440	10×25
	1800	0.037	1690	10×30
	2200	0.038	1660	13×20
	3300	0.030	1950	13×25
	3900	0.025	2310	13×30
		0.029	2210	16×20
	4700	0.022	2510	13×35
	5600	0.017	2870	13×40
		0.022	2560	16×25
		0.028	2490	18×20
	6800	0.019	3010	16×31.5
		0.02	2740	18×25
	8200	0.017	3150	16×35.5
		0.018	3330	18×31.5
	10000	0.015	3710	16×40
		0.016	3680	18×35.5
	12000	0.015	3800	18×40

LW 系列 SERIES

◆ STANDARD RATINGS

UR (Surge Voltage) Code	Rated Capaci-tance	Max ESR 20℃100KHz	Rated Ripple Current 105℃100KHz	Size φD×L
(V)	(μF)	(Ω)	(mA rms)	(mm)
16 (20)	47	0.85	175	5×11
	100	0.4	290	6.3×12
	220	0.22	400	6.3×15
	330	0.12	555	8×12
	470	0.090	730	8×16
		0.090	760	10×12.5
	560	0.080	810	8×20
	680	0.068	1050	10×16
	1000	0.052	1220	10×20
	1200	0.045	1440	10×25
	1500	0.037	1690	10×30
		0.038	1660	13×20
	2200	0.030	1950	13×25
	2700	0.025	2310	13×30
		0.029	2210	16×20
	3300	0.022	2510	13×35
	3900	0.017	2870	13×40
		0.022	2560	16×25
		0.028	2490	18×20
	4700	0.019	3010	16×31.5
		0.020	2740	18×25
	5600	0.017	3150	16×35.5
		0.018	3330	18×31.5
	6800	0.015	3710	16×40
	8200	0.016	3680	18×35.5
	10000	0.015	3800	18×40
25 (32)	47	0.80	175	5×11
	100	0.32	290	6.3×12
	150	0.22	400	6.3×15
	220	0.13	555	8×12
	330	0.090	730	8×16
		0.090	760	10×12.5
	390	0.080	810	8×20
	470	0.068	1050	10×16
	680	0.052	1220	10×20
	820	0.045	1440	10×25
	1000	0.037	1690	10×30
		0.038	1660	13×20
	1500	0.030	1950	13×25
	1800	0.025	2310	13×30
		0.029	2210	16×20
	2200	0.022	2510	13×35
		0.028	2490	18×20
	2700	0.017	2870	13×40
		0.022	2560	16×25
	3300	0.019	3010	16×31.5
		0.020	2740	18×25
	3900	0.017	3150	16×35.5
		0.018	3330	18×31.5
	4700	0.015	3710	16×40
		0.016	3680	18×35.5
	5600	0.015	3800	18×40

LW 系列 SERIES

◆ STANDARD RATINGS

UR (Surge Voltage) Code	Rated Capaci-tance	Max ESR 20℃100KHz	Rated Ripple Current 105℃100KHz	Size φD×L
(V)	(μF)	(Ω)	(mA rms)	(mm)
35 (44)	33	0.80	175	5×11
	56	0.4	290	6.3×12
	100	0.21	400	6.3×15
	150	0.13	555	8×12
	220	0.090	730	8×16
		0.090	760	10×12.5
	270	0.080	810	8×20
	330	0.068	1050	10×16
	470	0.052	1220	10×20
	560	0.045	1440	10×25
	680	0.037	1690	10×30
		0.038	1660	13×20
	1000	0.030	1950	13×25
	1200	0.025	2310	13×30
		0.029	2210	16×20
	1500	0.022	2510	13×35
	1800	0.017	2870	13×40
		0.022	2560	16×25
		0.028	2490	18×20
	2200	0.019	3010	16×31.5
		0.020	2740	18×25
	2700	0.017	3150	16×35.5
		0.018	3330	18×31.5
	3300	0.015	3710	16×40
		0.016	3680	18×35.5
	3900	0.015	3800	18×40
50 (63)	0.47	5.50	17	5×11
	1	4	30	5×11
	2.2	2.5	43	5×11
	3.3	2.2	53	5×11
	4.7	1.9	88	5×11
	10	1.5	100	5×11
	22	0.9	155	5×11
	33	0.62	230	6.3×12
	47	0.45	260	6.3×12
	68	0.31	360	6.3×15
	100	0.22	485	8×12
	120	0.160	635	8×16
		0.160	620	10×12.5
	180	0.120	730	8×20
	220	0.088	1050	10×16
	270	0.082	1120	10×20
	330	0.073	1250	10×25
	390	0.054	1500	10×30
	470	0.048	1660	13×20
	560	0.044	1840	13×25
	680	0.039	2220	13×30
	820	0.033	2290	13×35
		0.042	1980	16×20
	1000	0.029	2500	13×40
		0.034	2240	16×25
	1200	0.028	2700	16×30
		0.029	2610	18×25
	1500	0.025	2800	16×35.5
	1800	0.021	3200	16×40
		0.025	3000	18×31.5
	2200	0.023	3100	18×35.5
	2700	0.02	3400	18×40

LW 系列 SERIES

◆ STANDARD RATINGS

UR (Surge Voltage) Code	Rated Capaci-tance	Max ESR 20℃100KHz	Rated Ripple Current 105℃100KHz	Size φD×L
(V)	(μF)	(Ω)	(mA rms)	(mm)
63 (79)	12	1.9	145	5×11
	22	1.0	240	6.3×12
	39	0.61	330	6.3×15
	68	0.34	405	8×12
	100	0.27	535	8×16
		0.255	540	10×12.5
	120	0.190	600	10×16
	150	0.210	690	8×20
	180	0.145	890	10×20
	220	0.130	1050	10×25
	330	0.090	1300	10×30
		0.085	1290	13×20
	390	0.070	1720	13×25
	470	0.055	2090	13×30
		0.059	1770	16×20
	680	0.047	2270	13×35
		0.050	2160	16×25
		0.055	2290	18×20
	820	0.042	2560	13×40
		0.043	2670	16×31.5
		0.043	2590	18×25
	1000	0.036	2770	16×35.5
	1200	0.030	2850	16×40
		0.032	2950	18×31.5
	1500	0.030	3100	18×31.5
	1800	0.025	3210	18×40
100 (125)	5.6	1.9	57	5×11
	8.2	1.3	74	6.3x12
	12	1.1	78	6.3×12
	18	0.62	85	6.3×15
	22	0.53	275	8×12
	27	0.47	319	10×12.5
	33	0.35	360	8×16
		0.32	424	10×16
	39	0.27	490	8×20
	56	0.25	499	10×20
	68	0.18	634	10×25
		0.20	613	13×15
	100	0.15	739	10×30
		0.13	805	13×20
	120	0.11	857	13×25
		0.13	706	16×15
	150	0.12	871	18×15
	180	0.090	1120	13×30
		0.110	916	16×20
	220	0.075	1240	13×35
		0.081	1290	16×25
	270	0.060	1330	13×40
		0.085	1170	18×20
	330	0.059	1630	16×31.5
		0.071	1500	18×25
	390	0.052	1750	16×35.5
		0.058	1630	18×31.5
	470	0.045	1920	16×40
	560	0.054	1920	18×35.5
	680	0.041	2100	18×40

Customer products are available on request