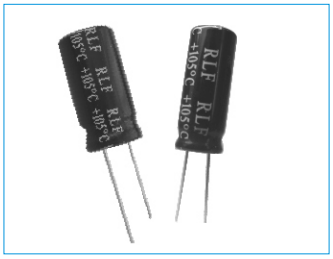
RLF Uitra Low Impedance Series



- Ultra low impedance at high frequency
- High reliability withstanding 5000 hours load at 105℃
- For swithiching power supplies,noise filter,adapter,charger

ZLF → **RLF** → WLF
Ultra Low imp. — Ultra Low imp. Miniature

Specifications

Item	Characteristics
Operating Temperature Range	–40℃ ~ +105℃
Rated Voltage Range	6.3V~100V
Nominal Capacitance Range	0.47 μ F~15000 μ F
Capacitance Tolerance	M (± 20%) (20℃,120Hz)
Leakage Current	I≤0.01$C_R U_R$ or 3 μ A,whichever is greater(2min.) I≤0.03$C_R U_R$ or 4 μ A,whichever is greater(1min.) C_R:Nominal capacitance (μ F) U_R:Rated voltage(V)

Dissipation Factor (Max)

U_R	6.3	10	16	25	35	50	63	100
tan δ	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08
0.02 is added to every 1000 μ F increase over 1000 μ F.								

(20℃,120Hz)

Low Temperature Stability (Impedance Ratio)

U_R (V)	6.3	10	16	25~100
Z(–25℃) / Z(+20℃)	2	2	2	2
Z(–40℃) / Z(+20℃)	3	3	3	3

(120Hz)

Load Life

After 5000 hours'(Φ5、Φ6.3:2000hours, Φ8:3000hours, Φ10:4000 hours) application of rated voltage with rated ripple current at 105℃, the capacitors shall meet the following requirement:

Capacitance change	Within ± 25% of the initial value .
Dissipation factor	Not more than 200% of the initial specified value.
Leakage current	Not more than the initial specified value.

Shelf Life

After storage for 1000 hours at +105℃,the capacitors shall meet the requirement of load life above .

Rated Ripple Current & Frequency Multipliers

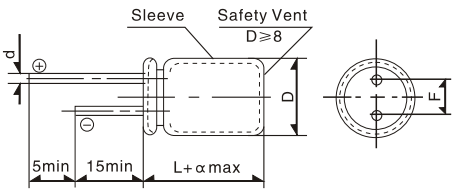
Cap. \ Freq.	120Hz	1kHz	10kHz	100kHz
6.8 μ F~33 μ F	0.42	0.7	0.90	1.00
39 μ F~270 μ F	0.50	0.73	0.92	1.00
330 μ F~680 μ F	0.55	0.77	0.94	1.00
820 μ F~1800 μ F	0.6	0.80	0.96	1.00
2200 μ F~18000 μ F	0.7	0.85	0.98	1.00

Rated Ripple Current & Temperature Multipliers

Temperature	+70℃	+85℃	+105℃
Multipliers	2.00	1.70	1.00

RLF Series

Dimensions



mm

D	± 0.5			± 1.0									
	5	6.3	8	10			12.5		16			18	
L	11	11	11.5	12.5	16	20	20	25	25	31.5	35.5	35.5	40
F ± 0.5	2	2.5	3.5	5					7.5				
d ± 0.1	0.5		0.6						0.8				
α	1.5						2.0						

Nominal capacitance,rated voltage,impedance,rated ripple current and case size table

U_R(V) / Item / C_R(μF)	6.3			10			16			25		
	D×L mm	Z	I~	D×L mm	Z	I~	D×L mm	Z	I~	D×L mm	Z	I~
4.7										5×11	0.35	250
10							5×11	0.35	250	5×11	0.35	250
22	5×11	0.35	250	5×11	0.35	250	5×11	0.35	250	5×11	0.35	250
33	5×11	0.35	250	5×11	0.35	250	5×11	0.35	250	5×11	0.35	250
47	5×11	0.30	250	5×11	0.30	250	5×11	0.30	250	5×11	0.30	250
100	5×11	0.30	250	5×11	0.30	250	6.3×11	0.15	405	6.3×11	0.15	405
150	6.3×11	0.15	405	6.3×11	0.15	405	6.3×11	0.15	405	8×11.5	0.072	760
220	6.3×11	0.15	405	6.3×11	0.15	405	8×11.5	0.072	760	8×11.5	0.072	760
330	6.3×11	0.15	405	8×11.5	0.072	760	8×11.5	0.072	760	10×12.5	0.053	1030
470	8×11.5	0.072	760	8×11.5	0.072	760	10×12.5	0.053	1030	10×16	0.038	1430
680	10×12.5	0.053	1030	10×12.5	0.053	1030	10×16	0.038	1430	10×20	0.027	1820
1000	10×12.5	0.053	1030	10×16	0.038	1430	10×20	0.027	1820	12.5×20	0.025	2360
1500	10×20	0.027	1820	10×20	0.027	1820	12.5×20	0.025	2360	16×20	0.015	3460
2200	12.5×20	0.025	2360	12.5×20	0.025	2360	12.5×25	0.018	2770	16×25	0.015	3460
3300	12.5×20	0.025	2360	12.5×25	0.018	2770	16×25	0.015	3460	16×31.5	0.015	3680
4700	16×25	0.015	3460	16×25	0.015	3460	16×31.5	0.015	3680	18×35.5	0.014	3800
6800	16×25	0.015	3460	16×31.5	0.015	3680	18×35.5	0.014	3800			
10000	16×31.5	0.015	3680	18×35.5	0.014	3800						
15000	18×35.5	0.014	3800									

Rated ripple current (mA rms) (105℃,100kHz)

Impedance(Ω)(20℃,100kHz)

RLF Series

■ Nominal capacitance,rated voltage,impedance,rated ripple current and case size table

U_R(V) / Item / C_R(μF)	35			50			63			100		
	D×L mm	Z	I~	D×L mm	Z	I~	D×L mm	Z	I~	D×L mm	Z	I~
0.47				5×11	2.0	250						
1.0				5×11	2.0	250						
2.2				5×11	2.0	250				5×11	2.0	125
3.3				5×11	1.0	250	5×11	2.0	165	5×11	2.0	125
4.7	5×11	0.35	250	5×11	1.0	250	5×11	2.0	165	5×11	2.0	125
10	5×11	0.35	250	5×11	0.50	250	5×11	0.45	165	6.3×11	0.50	205
22	5×11	0.35	250	5×11	0.26	250	6.3×11	0.30	265	8×11.5	0.30	355
33	5×11	0.30	250	6.3×11	0.17	405	6.3×11	0.30	265	10×12.5	0.25	450
47	6.3×11	0.15	405	6.3×11	0.14	405	8×11.5	0.20	500	10×16	0.20	580
100	8×11.5	0.072	760	8×11.5	0.072	760	10×16	0.10	945	12.5×20	0.10	1045
150	8×11.5	0.072	760	10×12.5	0.061	1030	10×20	0.08	1100	12.5×25	0.070	1195
220	10×12.5	0.053	1030	10×16	0.038	1430	10×25	0.07	1300	16×25	0.060	1600
330	10×16	0.038	1430	10×20	0.027	1820	12.5×20	0.04	1495	16×31.5	0.040	1750
470	10×20	0.027	1820	12.5×20	0.025	2360	16×20	0.035	1990	18×40	0.030	2060
680	12.5×20	0.025	2360	12.5×25	0.020	2770	16×25	0.030	2780			
1000	12.5×25	0.018	2770	16×25	0.018	3460	16×35.5	0.020	2835			
1500	16×25	0.015	3460	16×31.5	0.015	3680						
2200	16×31.5	0.015	3680	18×35.5	0.014	3800						
3300	18×35.5	0.014	3800									

Rated ripple current (mA rms) (105℃,100kHz)

Impedance(Ω)(20℃,100kHz)