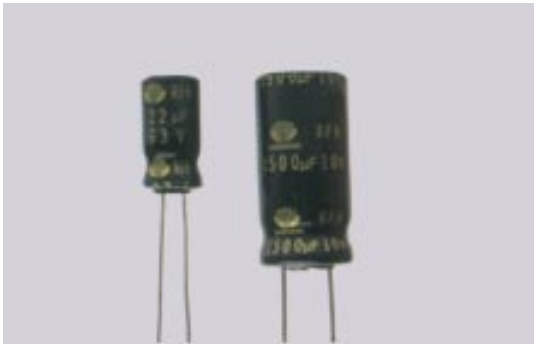
RFH SERIES

ALUMINUM ELECTROLYTIC CAPACITORS
Low Z, Low ESR, Miniature

n Features

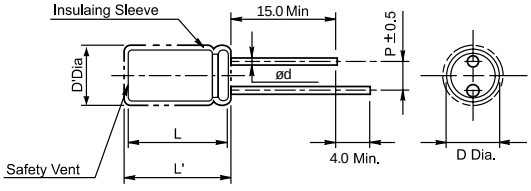
- Miniature, Radial
- Extremely low impedance at high frequency
- For switching mode power supply
- Load life of 5000 hours at 105˚C



n Specifications

Item	Performance Characteristics						
Operating temperature range	-55˚C ~ +105˚C						
Rated working voltage range	6.3V ~ 50V						
Nominal capacitance range	10 ~ 15000μF						
D.C Leakage current(at 20˚C)	The following specifications shall be satisfied when the rated voltage is applied for the required time. I≤ 0.03CV or 4μA (2 min),Whichever is greater Where I =Leakage current(μA) C=Nominal capacitance(μF) V=Rated voltage(V)						
Tan δ (max., at 20˚C, 120Hz)	W.V(V)	6.3	10	16	25	35	50
	δ						
	When capacitance is over 1000μF, Tan δ shall be added 0.02 to the listed value with increase of every each 1000μF						
Characteristics at low temperature(max.) (impedance ratio at 120Hz)	W.V(V)	6.3	10	16	25	35	50
	Z-55˚C/Z20˚C	4	4	3	3	3	2
Load life	After applying rated working voltage for 5000 hours (ø5, 6.3 : 2000 hours, ø8 : 3000 hours) at						
	+105˚C, and then being stabilized at +20˚C, capacitors shall meet following limits.						
	Capacitance change (δ)	Within ± 20% of initial measured value					
	Tan	≤ 200% of initial specified value					
	Leakage current	≤ Initial specified value					
Shelf life	After storage for 1000 hours at +105˚C with no voltage applied and then being stabilized at						
	+20˚C, capacitors shall meet following limits.						
	Capacitance change (δ)	Within ± 20% of initial measure value					

n Case sizes and Dimensions



• Standard lead style

øD	5.0	6.3	8.0	10.0	13.0	16.0	
P	18.0						
ød	2.0	2.5	3.5	5.0		7.5	

D'= [D+0.5]Max. L'= [L+1.0]Max. at D ≤ 8.0
L' = [L+1.5]Max. at D ≥ 10.0

n Ripple current coefficient

• Frequency

Cap(μF) \ Freq(Hz)	50	120	400	1K	10K	100K
Cap ≤ 4.7	0.34	0.46	0.54	0.70	0.83	1.0
4.7< Cap ≤ 47	0.45	0.57	0.68	0.80	0.87	1.0
47< Cap ≤ 330	0.55	0.70	0.76	0.88	0.90	1.0
330< Cap ≤ 1000	0.67	0.78	0.88	0.90	0.92	1.0
1000 < Cap	0.82	0.84	0.90	0.94	0.97	1.0

• Temperature

Temperature	≤ 70˚C	85˚C	105˚C
Factor	1.65	1.4	1.0

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Standard ratings [Dimensions, Impedance, Ripple Current]

øD x L (mm)

W.V / Cap(μF)	6.3(OJ)			10(IA)			16(IC)		
	SIZE	I_R	Z	SIZE	I_R	Z	SIZE	I_R	Z
47							5x11	155	0.80
68				5x11	155	0.80	6.3x1	220	0.50
100	5x11	150	0.85	6.3x11	210	0.55	1	265	0.35
150	6.3x11	225	0.49	6.3x11	265	0.30	6.3x1	370	0.23
220	6.3x11	285	0.30	6.3x11	290	0.29	1	460	0.18
330	6.3x11	295	0.30	8x11.5	445	0.17	8x11.5	620	0.12
470	10x12.5	500	0.14	10x12.5	590	0.12	8x11.5	740	0.095
680	10x16	700	0.11	10x16	770	0.095	10x12.	101	0.065
1000	10x20	900	0.085	10x20	101	0.065	5	0	0.050
1500	10x20	1050	0.065	13x20	0	0.048	10x16	135	0.036
2200	13x20	1400	0.042	13x25	137	0.034	10x20	0	0.030
3300	13x25	1700	0.035	16x25	0	0.026	13x20	160	0.023
4700	16x25	2100	0.028	16x31.5	165	0.023	13x25	0	0.022
6800	16x31.5	2350	0.025	16x35.5	0	0.022	16x25	190	0.018
10000	18x31.5	2550	0.023	18x40	218	0.018	16x31.	0	
15000	18x40	2950	0.018		0		5	220	

W.V / Cap(μF)	25(IE)			35(IV)			50(IH)		
	SIZE	I_R	Z	SIZE	I_R	Z	SIZE	I_R	Z
10							5x11	115	1.4
15							5x11	145	0.93
22				5x11	160	0.75	6.3x11	195	0.65
33	5x11	155	0.80	6.3x11	225	0.49	6.3x11	240	0.43
47	6.3x1	210	0.55	6.3x11	270	0.34	8x11.5	390	0.30
68	1	260	0.36	8x11.5	420	0.23	8x11.5	410	0.20
100		370	0.25	8x11.5	460	0.16	10x16	580	0.16
150	6.3x1	450	0.16	10x12.5	525	0.14	10x20	820	0.10
220	1	600	0.13	10x16	770	0.09	10x20	101	0.075
330	8x11.5	750	0.095	10x20	101	0.065	13x20	0	0.055
470	8x11.5	1010	0.065	13x20	5	0.050	13x25	130	0.044
680	10x12.	1400	0.046	13x25	140	0.036	16x25	0	0.036
1000	5	1650	0.036	16x25	0	0.030	16x31.5	150	0.030
1500	10x16	1950	0.030	16x31.5	166	0.027	18x31.5	0	0.028
2200	10x20	2350	0.025	16x35.5	0	0.024	18x40	185	0.024
3300	13x20	2550	0.022	18x40	195	0.017		0	
4700	13x25	2960	0.018		0			212	

I_R = Max. permissible ripple current[mA(rms) at 105˚C, 100KHz]

Z = Max. Impedance [Ω at 20˚C, 100KHz]