

ALUMINUM ELECTROLYTIC CAPACITORS

RN Non-polar Series

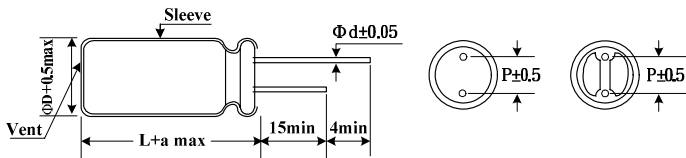
- Features: 85°C, 1000hrs, Non-polarized/Polarity reversing
- Recommended Applications:
Small crossover network, Reversed polarity circuit, Coupling
- Corresponding product to RoHS



Specifications

Item	Characteristics													
Operating Temperature Range	-40 ~ +85°C							-25~+85°C						
Rated Voltage Range	4 ~ 100VDC							160~250VDC						
Rated Capacitance Range	1 ~ 6800 µF							1~100 µF						
Capacitance Tolerance	± 20 % at 120Hz , 20°C													
Leakage Current (MAX) (20°C)	I ≤ 0.03CV + 4 µA ; L=7mm, I ≤ 0.05CV or 10 µA whichever is greater (After rated voltage applied for 2 minutes) I = Leakage Current (µA) C= Nominal Capacitance (µF) V= Rated Voltage (V)													
Dissipation Factor (MAX) (tan δ) (120Hz , 20°C)	WV	4	6.3	10	16	25	35	50	63	80	100	160	200	250
	tan δ	0.35	0.24	0.2	0.17	0.15	0.15	0.15	0.10	0.10	0.10	0.20	0.20	0.20
When nominal capacitance is over 1000µF tanδ shall be added 0.02 to the listed value with increase of every 1000µF.														
Low Temperature Stability Impedance Ratio (MAX)	WV	4	6.3	10	16	25	35	50	63	80	100	160	200	250
	Z(120Hz)	4	6.3	10	16	25	35	50	63	80	100	160	200	250
	Z(-25°C) / Z(+20°C)	6	4	3	2	2	2	2	2	2	2	6	6	6
After applying rated voltage for 1000 hours at 85°C, the capacitors shall meet the following requirements. (The polarity shall be reversed every 250 hours)														
Endurance	Capacitance Change							Within ± 20 % of initial value						
	Dissipation Factor							Not more than 200% of the specified value						
	Leakage Current							Not more than the specified value						
Shelf Life	After placed at 85°C without voltage applied for 500 hours, the capacitors shall meet the same requirements as load life.													

Diagram of Dimensions



φ D	4	5	6.3	8	10	13	16	18
P	1.5	2.0	2.5	3.5	5.0	5.0	7.5	7.5
φ d	0.45	(0.45) 0.5	(0.45) 0.5	0.6	0.6	0.6	0.8	0.8
a	1.0	(1.0) 1.5	(1.0) 1.5	1.5	1.5	2.0	2.0	2.0

() : L = 7

Multiplier for Ripple Current

Frequency coefficient

WV(VDC)	Freq.(Hz)	50	120	1K	10K
4 ~ 16		0.8	1.0	1.1	1.2
25 ~ 35		0.8	1.0	1.5	1.7
50 ~ 100		0.8	1.0	1.6	1.9
160 ~ 250		0.8	1.0	1.5	1.6

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■ Dimensions, Rated Ripple Current

Capacitance (μF)	Rated (Surge) Voltage																
	4 (5)		6.3 (8)		10 (13)		16 (20)		25 (32)		35 (44)		50 (63)		63 (79)		
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	
1.0													4x7	10	4x7	15	
2.2												4x7	15	4x7	20	5x7	25
3.3									4x7	15	5x7	20	5x7	25	6.3x7	30	
4.7											5x7	25	6.3x7	30	6.3x7	35	
10							4x7	20	5x7	20	5x11	30	5x11	30	6.3x11	35	
22					4x7	25	5x11	40	6.3x7	35	6.3x7	40	6.3x7	40	6.3x11	55	
33					5x7	40	5x11	55	6.3x7	50							
47					5x7	35	5x11	50	6.3x7	45	6.3x11	65	6.3x11	70			
100					5x7	35	5x11	65	5x11	70	6.3x7	65					
220					5x11	60	6.3x7	50	6.3x7	60	6.3x11	80	8x11	100	8x11	105	
330					5x11	70	5x11	75	6.3x7	70							
470					5x7	40	6.3x7	50	6.3x7	60	6.3x11	95	6.3x11	95	8x11	120	
1000					6.3x7	60	6.3x11	115	6.3x11	125	8x11	160	8x11	160	10x16	180	
2200					8x11	205	8x11	215	10x12.5	275	10x16	305	10x16	305	13x20	410	
3300					8x11	265	10x16	345	10x16	375	13x20	450	13x20	410	13x25	480	
4700					10x12.5	370	10x16	410	10x20	485	13x20	540	13x20	505	16x25	650	
6800					10x20	650	13x20	720	13x25	855	16x25	950	16x25	650	16x32	750	
					13x25	1160	16x25	1280	16x32	1510	18x36	1620	16x32	1140			
					16x25	1570	16x32	1690	18x36	1980							
					16x32	2020	18x36	2160									
					18x36	2600											

Capacitance (μF)	Rated (Surge) Voltage									
	80 (100)		100 (125)		160 (200)		200 (250)		250 (300)	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
1			5x11	10	6.3x11	15	6.3x11	15	8x11	15
2.2	5x11	30	6.3x11	25	8x11	20	8x11	20	10x12.5	25
3.3	6.3x11	35	6.3x11	35	10x12.5	30	10x12.5	30	10x12.5	30
4.7	6.3x11	40	6.3x11	40	10x12.5	35	10x16	40	10x16	40
10	8x11	65	8x11	70	10x16	55	13x20	70	13x20	70
22	10x16	105	10x16	135	13x25	105	13x25	120	16x25	135
33	10x16	160	13x20	220	16x25	165	16x25	165	16x32	180
47	10x20	215	13x20	240	16x26	200	16x32	220	16x36	230
100	13x25	385	16x25	425	18x36	360				
220	16x32	690	18x36	720						
330	18x36	860								

☆ Size: D φ x L (mm) ☆ Ripple Current : mArms/85 °C, 120Hz