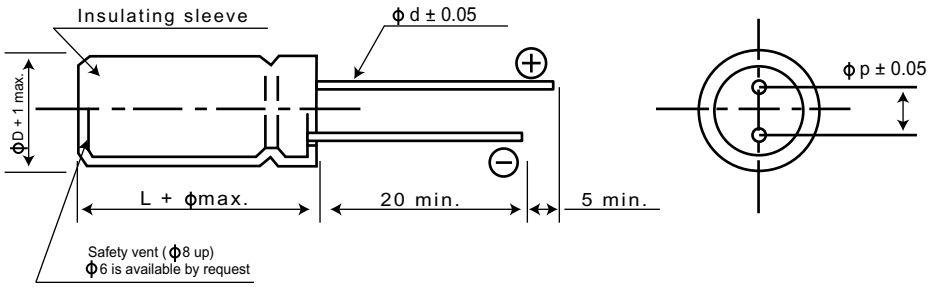
ECR Series - Aluminum Electrolytic Capacitors

Standard miniature radial type. Life 1000 hours at 85°C. Smaller size allows for wider choice of capacitance and voltage for automatic insertion.



Body Size

Dϕ	5	6	8	10	13	16	18	22	25
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5	10	12.5
dϕ	0.5			0.6		0.8		1.0	1.0

Case Size of Standard Product **DxL (mm)**

µF/WV	6.3V	10V	16V	25V	35V	50V	63V	100V
0.47					→	5x11	5x11	5x11
1	ALL BLANK VOLTAGE ON SLEEVE MARKING IS SAME VOLTAGE " → " POINT TO				→	5x11	5x11	5x11
2.2					→	5x11	5x11	5x11
3.3					→	5x11	5x11	5x11
4.7					→	5x11	5x11	5x11
10		→	5x11	5x11	5x11	5x11	5x11	6x11
22		→	5x11	5x11	5x11	5x11	6x11	8x12
33		→	5x11	5x11	5x11	6x11	6x11	8x14
47	→	5x11	5x11	5x11	6x11	6x11	8x12	10x16
100	5x11	5x11	5x11	6x11	8x12	8x12	10x12.5	13x21
220	5x11	6x11	6x11	8x12	8x14	10x16	10x21	13x26
330	6x11	6x11	8x12	8x14	10x16	10x21	13x21	16x26
470	6x12	8x12	8x12	8x14	10x16	13x21	13x26	16x32
1000	8x12	8x14	10x16	10x21	13x21	16x26	16x32	22x41
2200	10x16	10x16	13x21	13x26	16x26	16x36	18x38	
3300	10x21	13x21	13x26	16x26	16x32	18x38	22x41	
4700	13x21	13x26	16x26	16x32	18x38	22x41	25x41	
6800	16x26	16x32	16x36	18x38	22x41	25x41		
10000	16x32	16x36	18x38	22x41	25x41	25x50		

Case Size of Higher Voltage Produc **DxL (mm)**

µF/WV	160V	200V	250V	350V	400V	450V
0.47	5x11	5x11	5x11	6x11	6x11	6x11
1	5x11	6x11	6x11	8x12	8x12	8x12
2.2	6x11	6x11	8x12	10x12.5	10x12.5	10x16
3.3	6x11	8x12	8x12	10x12.5	10x12.5	10x16
4.7	8x12	8x12	10x12.5	10x12.5	10x16	10x21
10	10x12.5	10x16	10x16	10x21	13x21	13x26
22	10x16	10x21	13x21	13x21	13x26	16x26
33	10x21	13x21	13x26	16x26	16x32	16x32
47	13x21	13x26	16x26	16x32	16x36	16x36
100	16x26	16x32	16x32	18x38		
220	18x38					

ECR Series (cont.)

Characteristics

Voltage Range	6.3 ~ 100					160 ~ 450			
Capacitance Range	0.47 ~ 10000μF					0.47 ~ 220μF			
Temperature Range	-40 ~ +85°C					-25 ~ +85°C			
Leakage Current	I ≤ 0.01CV or 3μA whichever is greater (After 3 minutes.)					I ≤ 0.03CV or 10μA whichever is greater (After 3 minutes.)			
Capacitance Tolerance	±20% at 120Hz, 20°C								
Dissipation Factor (tanδ)	WV	6.3	10	16	25	35	50	63	100
	tanδ (max)	0.22	0.20	0.17	0.15	0.12	0.10	0.10	0.08
	WV	160	200	250	350	400	450		
	tanδ (max)	0.16	0.18	0.18	0.20	0.20	0.20		
	For capacitance > 1000μF, add 0.02 for every 1000μF. (At 20°C, 120Hz)								
Low Temperature Characteristics	Impedance ratio at 120Hz								
	Rated Voltage	6.3	10	16	25	35	50	63	100
	Z-25°C/Z 20°C	4	3	2	2	2	2	2	2
	Z-40°C/Z 20°C	8	6	4	4	3	3	3	3
	Rated Voltage	160	200	250	350	400	450		
	Z-25°C/Z 20°C	2	2	3	5	15	15		
Load life after application of the rated voltage for 1000 hours at 85°C	Leakage Current	Initial specified value or less							
	Capacitance Range	Within ±20% of initial value							
	tanδ	150% or less of initial specified value							
Shelf life (at 85°C)	After storage for 500 hrs., with no voltage applied and being stabilized at +20°C capacitor shall meet the limit specified in load								

Maximum Ripple Current mA rms 105°C 120Hz

μF/wv	6.3V	10V	16V	25V	35V	50V	63V	100V	160V	200V	250V	350V	400V	450V
0.47						8	8	10	10	10	10	11	12	12
1						10	20	20	13	16	18	18	18	19
2.2						20	30	30	22	27	31	28	28	29
3.3						30	40	40	31	36	40	35	35	35
4.7						40	45	50	40	45	49	40	45	50
10			45	45	50	60	65	70	66	72	81	70	70	75
22			75	90	95	100	105	115	110	126	144	110	110	110
33			85	95	105	120	130	145	140	160	170	140	140	150
47		90	100	120	135	150	160	180	180	193	210	170	170	170
100	100	150	170	180	210	250	270	350	270	306	340	340		
220	240	250	280	310	350	400	450	550	400					
330	300	330	350	370	440	500	550	700						
470	380	400	440	480	550	650	750	900						
1000	580	630	680	850	900	1050	1100	1050						
2200	890	920	1000	1200	1250	1300	1400							
3300	1020	1090	1200	1300	1400	1500	1600							
4700	1170	1200	1360	1500	1600	1700	1800							
6800	1270	1400	1600	1700	1800	1900								
10000	1450	1600	1800	1800	2000	2800								