

Aluminum Electrolytic Capacitors

Radial Standard and High Voltage 85°C

RD, RDHV Series

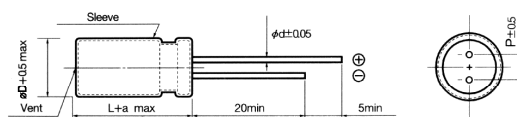
• Used in general electronic circuits as coupling by-pass, filter etc..

SPECIFICATION

ITEM	SPECIFICATION														
Capacitance Tolerance (120Hz 20°C)	± 20%(M)														
Rated Working Voltage	6.3 WV ~ 100WV										160 WV ~ 450WV				
Operation Temperature Range	(RD) -40 ~ +85°C										(RDHV) -25 ~ +85°C				
Surge Voltage (V) (20°C)	WV	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450
	SV	8	13	20	32	44	63	79	125	200	250	300	400	450	500
Leakage Current (20°C)	≤0.01CV or 3 Whichever is greater										≤0.03CV +10				
	After rated voltage applied for 3 minutes														
	Where	I : Leakage Current (μA)					C : Capacitance (μF)					V : Rated Voltage (V)			
Dissipation Factor(tan δ) (120Hz 20°C)	WV	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450
	DF	0.24	0.20	0.16	0.14	0.12	0.10	0.10	0.10	0.20	0.20	0.20	0.24	0.24	0.24
Add 0.02 per 1000 μF for more than 1000 μF															
Low Temperature Characteristics	Impedance ratio at 120Hz														
	Comparison Z/WV	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450
	- 25°C / 20°C	4	3	2	2	2	2	2	2	3	3	3	4	4	4
	- 40°C / 20°C	8	6	4	4	3	3	3	3	-	-	-	-	-	-
Load Life	After 2000 hours application of W.V. at 85°C. the capacitor shall meet the following limits.														
	Capacitance Change										≤ ±20% of Initial Value				
	Dissipation Factor										≤ 200% of Initial Specified Value				
	Leakage Current										≤ Initial Specified Value				
Shelf Life	After 500 hours to place at 85°C without rated voltage applied, the capacitor shall meet the limits as same as load life.														
Others	Satisfied JIS C-5141														

* All RD series electrolytics are now 2000 hrs. The RD series replaces RDL.

DIMENSIONS (unit:mm)



φD	5	6.3	8	10	13	16	18
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5
ad	0.5	0.5	0.6	0.6	0.6	0.8	0.8
a	1.0	1.0	1.0	1.0	2.0	2.0	2.0

RIPPLE CURRENT COEFFICIENTS

Frequency Multipliers

WV	Freq.(Hz)		50	120	1K	10K ~
	Cap.(μF)					
6.3 ~ 100	0.1 ~ 47		0.75	1.00	1.57	2.00
	100 ~ 470		0.80	1.00	1.34	1.50
	1000 ~ 15000		0.85	1.00	1.13	1.15
160 ~ 450	0.47 ~ 330		0.80	1.00	1.40	1.60

Temperature Multipliers

WV	Temp.(°C)		~ 75	85
6.3 ~ 100			1.27	1.00
160 ~ 450			1.27	1.00

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CASE SIZE & MAX RIPPLE CURRENT

CASE SIZE ØDxL (mm) MAX RIPPLE CURRENT (mA/85°C, 120Hz)

CAP Code	WV µF	6.3		10		16		25		35		50		63		100		160		200		250		350		400		450		
		ØDxL	mA	ØDxL	mA	ØDxL	mA	ØDxL	mA	ØDxL	mA	ØDxL	mA	ØDxL	mA	ØDxL	mA	ØDxL	mA	ØDxL	mA	ØDxL	mA	ØDxL	mA	ØDxL	mA	ØDxL	mA	
0R1	0.10											5x11	1.3																	
R22	0.22											5x11	2.1																	
R33	0.33											5x11	4.4																	
R47	0.47											5x11	7	5x11	7	5x11	12	5x11	11	5x11	11	5x11	11	5x11	13	6.3x11	13	6.3x11	13	
010	1.0											5x11	12	5x11	12	5x11	22	5x11	14	5x11	14	6.3x11	14	6.3x11	15	8x11	15	8x11	15	
2R2	2.2											5x11	22	5x11	31	5x11	32	6.3x11	21	6.3x11	21	8x11	23	8x11	23	8x11	23	10x12.5	23	
3R3	3.3											5x11	37	5x11	42	5x11	42	8x11	27	8x11	27	8x11	27	8x11	29	10x12.5	30	10x15	31	
4R7	4.7										5x11	37	5x11	48	5x11	48	5x11	53	8x11	31	8x11	31	10x12.5	34	10x12.5	34	10x15	35	10x17	37
100	10					5x11	54	5x11	59	5x11	64	5x11	69	5x11	74	6.3x11	74	10x15	50	10x17	50	10x17	53	10x17	59	10x17	61	13x20	65	
220	22			5x11	63	5x11	79	5x11	96	5x11	100	5x11	110	6.3x11	115	8x11	98	10x17	84	10x17	84	10x20	100	13x20	100	13x20	102	16x26	105	
330	33			5x11	64	5x11	120	5x11	120	5x11	120	6.3x11	120	8x11	140	10x15	131	10x20	120	10x20	120	13x25	125	13x25	130	16x26	135	16x26	140	
470	47			5x11	96	5x11	140	5x11	140	6.3x11	140	6.3x11	140	8x11	170	10x15	187	13x20	140	13x25	140	13x25	157	16x26	164	16x36	169			
101	100	5x11	145	5x11	195	5x11	195	6.3x11	195	8x11	230	8x11	252	10x12.5	264	10x20	365	16x26	230	16x26	230	16x32	260	18x36	275					
221	220	6.3x11	260	6.3x11	270	8x11	305	8x11	326	10x15	370	10x17	420	10x20	470	13x25	368	16x32	385	18x40	395									
331	330	8x11	325	8x11	355	8x11	375	10x12.5	415	10x17	465	10x20	535	13x20	585	16x32	735	18x40	570											
471	470	8x11	410	8x11	430	8x11	453	10x15	601	10x20	590	13x20	690	13x25	790	16x32	940													
102	1000	10x12.5	625	10x15	675	10x17	725	13x20	895	13x25	945	16x26	1100	16x26	1105															
222	2200	10x20	940	10x20	955	13x20	1039	16x26	1255	16x32	1294	16x36	1355	22x40	1536															
332	3300	13x20	1080	13x20	1150	13x25	1055	16x32	1292	16x36	1305	18x40	1856																	
472	4700	13x20	1235	13x25	1265	13x30	1357	16x36	1673	18x40	2777	22x40	2835																	
682	6800	16x26	1340	16x26	1470	16x32	1670	18x36	2138	22x40	2547																			
103	10000	18x32	1465	18x36	1625																									
153	15000	18x36	1725																											