

# RRL Series, Radial Aluminum Electrolytic Capacitors, 105C Standard General Products

© 105°C, standard size.

© Used in color display, switch, power supply, communication sets etc

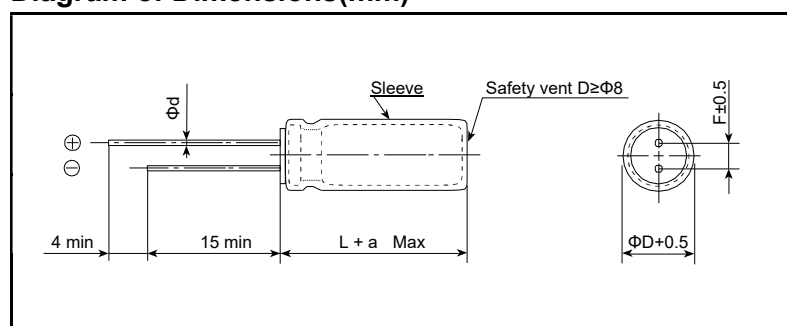
## How to order

<u>RRL</u>	<u>338</u>	<u>M</u>	<u>016</u>	<u>01250250</u>	<u>050</u>	<u>B</u>	<u>000</u>	<u>-</u>
Type	Capacitance code	Tolerance	Rated Voltage	Size Code	Pitch	Package	Lead Length	Additional characters maybe added for special requirements
RRL	pF Code: 1st two digits represent significant figures	M: -20%~+20%	Code 016: 16VDC For DC Voltage	Code 01250250: Size 12.5*25mm	Axial: 000 2.0: 020 2.5: 025 3.5: 035 5.0: 050 7.5: 075	B: BULK T: AMMO TAPED	Standard: 000 Cut Lead Length: 3.0mm: 030 3.5mm: 035 4.0mm: 040 4.5mm: 045 5.0mm: 050	
RFZ	3rd digit represents multiplier		006: 6.3VDC 016: 16VDC 035: 35VDC 200: 200VDC 450: 450VDC	00630110: Size 6.3*11mm 01250250: Size 12.5*25mm 01600250: Size 16*25mm				
RGR	(number of zeros to follow)							
RGL	107 = 100uF 108 = 1000uF 338 = 3300uF							
RB2								
RM2								

## Specifications

Items	Characteristics											
Operating temperature range	-40~+105°C					-25~+105°C						
Rated voltage range	6.3V~100V DC					160V~500V DC						
Nominal capacitance tolerance	0.1μF~22000μF											
Capacitance tolerance	±20% (120Hz·20°C)											
leakage current(20°C)	WV ≤ 100V I ≤ 0.01CV or 3 μA after 2 minute (whichever is greater)											
	WV > 160V I ≤ 0.03CV + 10μA after 3 minute											
	I: Leakage current C: Nominal capacitance V: Rated voltage											
Dissipation factor (120Hz·20°C)	Rated voltage(V)	6.3	10	16	25	35	50	63	100	160~250	400~450	
	tgδ(MAX)	0.26	0.22	0.18	0.16	0.14	0.12	0.10	0.08	0.20	0.24	
	When capacitance is more than 1000μF, tgδ will add 0.02 per 1000μF addition.											
Low temperature characteristics (Impedance ratio max. at 120Hz)	Rated voltage(v)	6.3	10	16	25	35	50	63	100	160~250	400	450
		6.3	10	16	25	35	50	63	100			
	Z-25°C/Z+20°C	5	4	3	2	2	2	2	2	4	6	15
	Z-40°C/Z+20°C	10	8	6	4	3	3	3	3			
Endurance	After applying rated for 2000 hours at 105°C then resumed 16 hours:											
	Capacitance change	Within ±20% of the initial measured value										
	tgδ	≤ 200% of the initial specified value										
	Leakage current	≤ initial specified value										
Shelf life	After storage for 1000 hours at 105°C then resumed 16 hours:											
	Capacitance change	Within ±20% of the initial measured value										
	tgδ	≤ 200% of the initial specified value										
	Leakage current	≤ initial specified value										

## Diagram of Dimensions(mm)

	φD	5	6.3	8	10	13	16	18	22
	F±0.5	2.0	2.5	3.5	5.0	5.0	7.5	7.5	10
	φd±0.05	0.5		0.6		0.8			
	α	(L<20) 1.5 (L≥20) 2.0							

**Multiplier for Ripple Current vs. Frequency:**

WV(V)	CAP(μF)\Hz	50(60)	120	1K	≥10K
≤100	CAP<100	0.75	1.00	1.57	2.00
	100≤CAP<1000	0.80	1.00	1.34	1.50
	CAP≥1000	0.85	1.00	1.00	1.15
≥160	CAP<1000	0.85	1.00	1.40	1.50

**Multiplier for Ripple Current vs. Temperature:**

Temperature °C	~55	70	85	105
Factor	2.23	2.00	1.75	1.00

**Standard Ratings**

WV(Code)		6.3V(006)		10V(010)		16V(016)		25V(025)		35V(035)	
C(μf)	Code	φD×L	R.C.	φD×L	R.C.	φD×L	R.C.	φD×L	R.C.	φD×L	R.C.
4.7	475							5×11	26	5×11	28
10	106					5×11	35	5×11	38	5×11	41
22	226	5×11	45	5×11	48	5×11	54	5×11	58	5×11	61
33	336	5×11	54	5×11	60	5×11	64	5×11	69	5×11	75
47	476	5×11	65	5×11	70	5×11	100	5×11	100	5×11	110
								5×9	75		
								6.3×11	79		
68	686	5×11	75	5×11	80	5×11	105	6.3×11	120	6.3×11	140
100	107									6.3×11	175
		5×11	95	5×11	105	6.3×11	115	6.3×11	145	6.3×12	100
220	227	5×11	160	5×11	175	6.3×11	215	6×11	188	8×12	300
								8×12	235		
330	337	6.3×11	195					8×11.5	324		
		6.3×12	345	6.3×11	210	6.3×11	265	8×12	335	10×12	520
470	477			6.3×11	290	8×9	310	8×16	420		
		6.3×11	230	8×12	370	8×12	370	10×12	440	10×16	540
680	687	8×12	360	8×12	420	10×12	480	10×16	520	10×20	650
1000	108					10×12.5	550				
		8×12	430	10×12	520	10×16	590	10×20	710	13×21	900
						10×20	610				
1500	158	10×12	620	10×16	770	10×20	820	13×21	920	13×25	1150
2200	228	10×16	770	10×20	860	13×21	1000	13×25	1200	16×25	1290
3300	338					13×20	1090				
		10×20	960	13×21	1100	13×25	1200	16×25	1460	16×32	1650
4700	478	13×21	1150	13×25	1350	16×25	1600	16×32	1670	18×36	1900
6800	688	13×25	1450	16×25	1670	16×32	1870	18×36	2050	22×40	2150
10000	109	16×25	1680	16×30	1900	18×36	2060	22×40	2150		
15000	159	16×36	2075	16×36	2180	22×40	2420				
22000	229	18×40	2300	22×40	2640						

Permit ripple current : (mArms, 105°C, 120HZ)

Case size: φD×L (mm)

**Standard Ratings**

WV(Code)		50V(050)		63V(063)		100V(100)		160V(160)		200V(200)	
C(uf)	Code	φD×L	R.C.	φD×L	R.C.	φD×L	R.C.	φD×L	R.C.	φD×L	R.C.
0.1	104	5×11	1.3	5×11	1.3						
0.22	224	5×11	2.9	5×11	2.9						
0.33	334	5×11	4	5×11	4.5						
0.47	474	5×11	7	5×11	7	5×11	7.5	5×11	11	5×11	12
1	105	5×11	13	5×11	13	5×11	15	6.3×11	17	6.3×11	17
2.2	225	5×11	20	5×11	20	5×11	21	6.3×11	25	6.3×11	25
3.3	335	5×11	26	5×11	28	5×11	30	6.3×11	32	6.3×11	35
4.7	475	5×11	32	5×11	32	5×11	35	6.3×11	42	8×12	50
6.8	685					6.3×11	42	8×12	56	8×12	55
10	106	5×11	48	5×11	48	6.3×11	56	8×12	62	8×12	63
22	226	5×11	72	5×11	82	6.3×11	96	10×16	75	10×16	78
33	336	5×11	90	6.3×11	100	8×12	155	10×20	105	10×20	130
47	476	6.3×11	115	6.3×11	140	10×12	170	10×20	170	13×21	190
				6.3×12	140						
68	686	6.3×11	155	8×12	185	10×16	240	13×21	210	13×25	240
100	107			8×11.5	230	10×17	230				
		8×12	200	8×12	230	10×20	280	13×25	280	16×25	300
150	157					13×21	295	16×25	330	16×32	345
220	227	10×12	245	10×16	270	13×21	520	16×32	470	16×35	375
		10×16	255							18×32	480
330	337					13×25	690	18×31	580	18×36	520
		10×16	360	10×20	400			18×32	580		
470	477			13×20	550	16×25	860	18×36	705	18×40	650
		10×20	470	13×21	550	16×32	890				
680	687	13×21	660	13×25	720	16×36	920	18×40	860		
1000	108	13×21	690			18×35	1300				
		13×25	770	16×25	880	18×40	1300				
1500	158	16×25	1000	16×35	1185						
2200	228	16×35	1300	18×36	1350						
3300	338										
		18×36	1480	22×37	1650						
4700	478	22×40	1750								

Permit ripple current : (mArms, 105°C, 120HZ)

Case size: φD×L (mm)

**Standard Ratings**

WV(Code)		250V(250)		350V(350)		400V(400)		450V(450)		500V(450)	
C(uf)	Code	φD×L	R.C.	φD×L	R.C.	φD×L	R.C.	φD×L	R.C.	φD×L	R.C.
0.47	474	5×11	12	6.3×11	13	6.3×11	14	6.3×11	14		
1	105	6.3×11	16	6.3×11	16	6.3×11	20	8×12	20		
2.2	225	6.3×11	20	8×12	31	8×12	36	8×12	35		
3.3	335	6.3×11	38	8×12	38	8×12	47	10×12	40		
4.7	475	8×12	46	8×12	52	8×12	56	10×16	62		
						10×13	66				
6.8	685	8×12	52	10×12	52	10×12	68	10×16	66		
10	106					10×12.5	100				
						10×13	100				
		10×12	70	10×16	79	10×16	85	10×20	72		
22	226	10×16	88	13×21	92	13×21	110	13×25	98		
33	336	10×20	140	13×25	160	13×25	190	16×25	180		
47	476	13×21	190	16×25	200	16×25	300	16×32	210		
68	686	13×25	240	16×25	225	16×32	320	18×32	292	18×27	300
100	107										
		16×25	355	18×32	320	18×32	350	18×35	300		
150	157	16×32	395	18×36	390						
180	187					18×40	800				
220	227	18×36	410								
330	337										

Permit ripple current : (mArms, 105°C , 120HZ)

Case size: φD×L (mm)