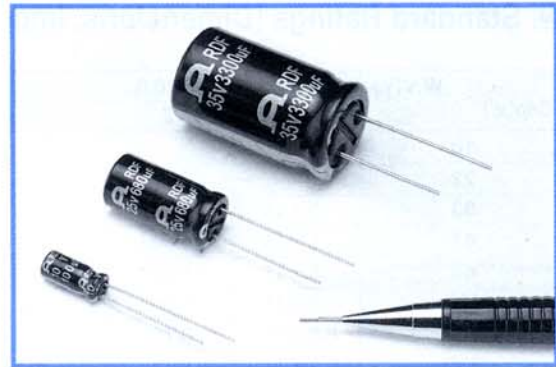


RDF SERIES

Low Z, Microminiature, Radial Leads

Features

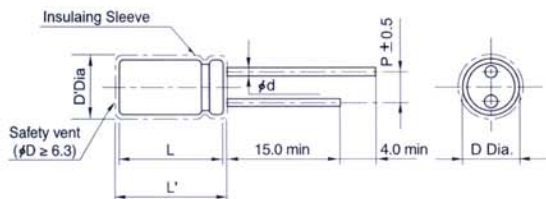
- Microminiature, Radial(Smaller than RMF)
- Low ESR, Low impedance
- Large permissible ripple current
- Load life of 2000 hours at 105°C
- Possible cleaning by Freon TE, TES, TMS(5min)



Specifications

Item	Performance Characteristics						
Operating temperature range	-55°C ~ +105°C						
Rated working voltage range	6.3V ~ 50V						
Nominal capacitance range	2.2μF ~ 10000μF, ±20% (at 20°C, 120Hz)						
D.C Leakage current(at 20°C)	The following specifications shall be satisfied when the rated voltage is applied for the required time. $I \leq 0.03CV(1 \text{ min})$ or $4\mu A$, whichever is greater $I \leq 0.01CV(2 \text{ min})$ or $3\mu A$, 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
	Tan δ	0.22	0.19	0.16	0.14	0.12	0.10
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	25~50		
	Z-55°C/Z20°C	3		2	2		
Load life	After applying rated working voltage for 2000 hours at +105°C and then being stabilized at +20°C, capacitors shall meet following limits. (φ 5, φ 6, φ 8 : 1000 hours)						
	Capacitance change	Within ± 20% of the initial measured value					
	Tan δ	≤ 200% of the initial specified value					
	Leakage current	≤ The 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	Within ± 20% of the initial measured value					
	Tan δ	≤ 150% of the initial specified value					
	Leakage current	≤ 200% of the initial specified value					

Dimensions



Standard lead style

φD	5.0	6.3	8.0	10.0	12.5	16.0	18.0
P	2.0	2.5	3.5	5.0		7.5	
φd	0.5		0.6			0.8	

$D' = [D + 0.5]$ Max.

$L' = [L + 1.0]$ Max. at $D \leq 8.0$

$L' = [L + 1.5]$ Max. at $D \geq 10.0$

Ripple current coefficient

Frequency

W.V(V) \ Freq(Hz)	50	120	300	1K	10-100K
6.3~16	0.54	0.70	0.85	0.95	1.0
25~35	0.43	0.57	0.73	0.88	1.0
50	0.39	0.55	0.71	0.86	1.0

Temperature

Temperature	≤ 45°C	65°C	85°C	105°C
Factor	2.4	2.2	1.7	1.0

RDF SERIES

Standard Ratings [Dimensions, Impedance, Ripple Current]

 ϕ D x L(mm)

Cap(μ F)	W.V(V)	6.3(0J)			10(1A)			16(1C)		
		SIZE	Z	I _r	SIZE	Z	I _r	SIZE	Z	I _r
10								5 x 11	2.20	70
22					5 x 11	1.60	97	5 x 11	1.60	108
33		5 x 11	1.60	107	5 x 11	1.60	120	5 x 11	1.60	127
47		5 x 11	1.60	129	5 x 11	1.60	140	5 x 11	1.60	168
68		5 x 11	1.60	148	5 x 11	1.60	160	5 x 11	1.60	189
100		5 x 11	1.60	172	5 x 11	1.60	189	6.3 x 11	0.78	238
220		6.3 x 11	0.78	290	6.3 x 11	0.78	324	8 x 11.5	0.38	415
330		6.3 x 11	0.78	355	8 x 11.5	0.38	465	8 x 11.5	0.38	508
470		8 x 11.5	0.38	504	8 x 11.5	0.38	556	10 x 12.5	0.30	704
680		10 x 12.5	0.30	650	10 x 16	0.22	750	10 x 16	0.22	926
1000		10 x 12.5	0.30	850	10 x 16	0.22	820	10 x 20	0.16	1225
2200		12.5 x 20	0.12	1140	12.5 x 20	0.12	1238	12.5 x 25	0.080	1435
3300		12.5 x 20	0.080	1330	12.5 x 25	0.080	1560	16 x 25	0.070	1830
4700		16 x 25	0.070	1840	16 x 25	0.070	1996			
6800		16 x 25	0.055	2050	16 x 31.5	0.055	2370			
10000		16 x 31.5	0.050	2468						

Cap(μ F)	W.V(V)	25(1E)			35(1V)			50(1H)		
		SIZE	Z	I _r	SIZE	Z	I _r	SIZE	Z	I _r
2.2								5 x 11	5.00	63
3.3								5 x 11	4.30	77
4.7		5 x 11	4.0	62	5 x 11	3.80	87	5 x 11	3.80	92
6.8		5 x 11	3.2	70	5 x 11	3.20	106	5 x 11	3.20	110
10		5 x 11	2.2	80	5 x 11	2.20	125	5 x 11	2.20	135
22		5 x 11	1.6	114	5 x 11	1.60	159	5 x 11	1.60	172
33		5 x 11	1.6	156	5 x 11	1.60	178	6.3 x 11	0.78	220
47		5 x 11	1.6	188	6.3 x 11	0.78	230	6.3 x 11	0.78	264
68		6.3 x 11	0.78	216	6.3 x 11	0.78	273	8 x 11.5	0.38	375
100		6.3 x 11	0.78	262	8 x 11.5	0.38	328	8 x 11.5	0.38	378
220		8 x 11.5	0.38	457	10 x 12.5	0.30	564	10 x 16	0.22	715
330		10 x 12.5	0.30	652	10 x 16	0.22	756	10 x 20	0.16	1030
470		10 x 16	0.22	850	10 x 20	0.16	985	12.5 x 20	0.12	1335
680		10 x 20	0.18	950	12.5 x 20	0.12	1125	12.5 x 25	0.080	1696
1000		12.5 x 20	0.12	1145	12.5 x 25	0.080	1367	16 x 25	0.070	1750
2200		16 x 25	0.070	1704	16 x 31.5	0.055	1945			
3300		16 x 31.5	0.055	2130	18 x 35.5	0.050	2485			

 I_r: Maximum permissible ripple current[mA(rms) at 105°C, 100KHz]

 Z : Max. Impedance[Ω at 20°C, 100KHz]