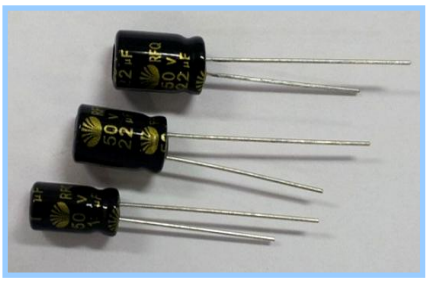
RFQ SERIES

105℃, Low Z, High Ripple, Radial Leads

▣ Features

- **Low impedance at high frequency**
- **Large permissible ripple current**
- **High reliability contnuous operation**
- **Load life of 6,000~10,000 hours at 105℃**

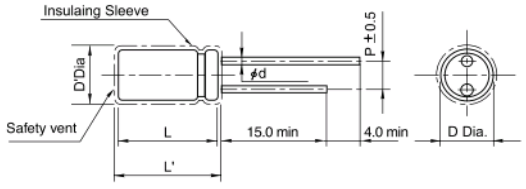


▣ Specifications

RFZ → Long Life → **RFQ**

Item	Performance Characteristics									
Operating temperature range	-40℃ ~ +105℃									
Rated working voltage range	6.3V ~ 100V									
Nominal capacitance range	8.2 μF ~ 8,200 μF , ±20% (at 20℃, 120Hz)									
D.C Leakage current(at 20℃)	The following specifications shall be satisfied when the rated voltage is applied for the required time.									
	I ≤ 0.01CV or 3μA (2min), Whichever is greater.									
	Where I = Leakage current(μA) C = Nominal capacitance(μF) V = Rated voltage (V)									
Tan δ (max., at 20℃, 120Hz)	W.V	6.3	10	16	25	35	50	63	80	100
	Tan δ	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08	0.08
	When capacitance is over 1000μF, Tanδ shell 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	35	50	63	80	100
	Z-25℃/Z+20℃	2								
	Z-40℃/Z+20℃	3								
Load life	After applying rated working voltage at +105℃ and then listed being stabilized at +20℃, capacitors shall meet following limits. (Life time : See on the right table)									
	Rated voltage (V)	6.3~10			16~100			Φ (D)	LIFE TIME	
	Capacitance change	Within ±30% of the initial measured value			Within ±25% of the initial measured value			5~6.3	6,000	
	Tan δ	≤ 200% of the initial specified value						8	8,000	
	Leakage current	≤ The initial specified value						10~	10,000	
Shelf life	After storage for 1000hours at +105℃ with no voltage applied and then being stabilized at +20℃, capacitors shall meet following limits.									
	Rated voltage (V)	6.3~10			16~100					
	Capacitance change	Within ±30% of the initial measured value			Within ±25% of the initial measured value					
	Tan δ	≤ 200% of the initial specified value								
	Leakage current	≤ The initial specified value								

▣ Dimensions



· Standard lead style

Φ D	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	
Φ d	0.5		0.6			0.8	

D' = [D+0.5] Max. L' = [L+1.5] Max. at D≤8.0
L' = [L+2.0] Max. at D≤10.0

▣ Ripple current coefficient

· Frequency

Cap(μF) \ Freq(Hz)	120	1K	10K	100K
Cap≤33	0.42	0.70	0.90	1.0
33≤Cap≤330	0.50	0.73	0.92	1.0
330≤Cap≤1000	0.55	0.77	0.94	1.0
1000≤Cap	0.60	0.80	0.96	1.0

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▣ Dimensions, Ripple current & Impedance

μF \ V	6.3	10	16	25	35	50	63	80	100
8.2									5 x 11 200 1.40
22						5 x 11 190 0.40	5 x 11 220 0.80		6.3 x 11 350 0.53
27						5 x 11 280 0.60		6.3 x 11 330 0.60	
47					5 x 11 430 0.50		6.3 x 11 390 0.40	8 x 11.5 590 0.40	8 x 16 740 0.30
68				5 x 11 420 0.50				10 x 12.5 750 0.28	10 x 16 1000 0.20
100				6.3 x 11 490 0.34	6.3 x 11 680 0.26	8 x 11.5 660 0.19	8 x 16 960 0.23	10 x 16 980 0.20	10 x 20 1320 0.10
120			5 x 11 420 0.50			8 x 16 1150 0.10	10 x 12.5 960 0.20		10 x 25 1450 0.080
150		5 x 11 420 0.50		6.3 x 11 670 0.25		10 x 12.5 1170 0.090	8 x 20 1100 0.11	10 x 20 1250 0.10	12.5 x 20 1550 0.073
180					8 x 11.5 1170 0.088	8 x 20 1420 0.070	10 x 16 1100 0.090	10 x 25 1400 0.080	
220	5 x 11 310 0.46		6.3 x 11 530 0.42		8 x 16 1480 0.070	10 x 16 1250 0.085	10 x 20 895 0.150	12.5 x 20 1600 0.073	12.5 x 25 2000 0.056
330		6.3 x 11 670 0.25		8 x 11.5 1100 0.088	8 x 20 1780 0.050	10 x 20 1850 0.055	10 x 25 1750 0.088	16 x 20 1700 0.058	12.5 x 35 2400 0.045
390				8 x 16 1450 0.070	10 x 16 1820 0.047	10 x 25 2050 0.043	12.5 x 20 1750 0.050		16 x 25 2250 0.039
470	6.3 x 11 510 0.25		8 x 11.5 1080 0.090	10 x 12.5 1580 0.062		12.5 x 20 2020 0.043	12.5 x 25 1150 0.090	16 x 25 2200 0.048	16 x 31.5 2440 0.040
560		8 x 11.5 1100 0.090	8 x 16 1450 0.070	8 x 20 1800 0.050	10 x 20 1650 0.046	12.5 x 20 2200 0.045	16 x 20 1900 0.042	16 x 31.5 2400 0.042	16 x 35.5 2680 0.040
680		8 x 16 1450 0.070	10 x 12.5 1530 0.065	10 x 16 1840 0.050	10 x 25 2700 0.033	12.5 x 25 2250 0.033		18 x 25 2300 0.036	18 x 35.5 3320 0.035
820	8 x 11.5 920 0.095	10 x 12.5 1550 0.050	8 x 20 1780 0.050		12.5 x 20 2380 0.034	16 x 20 2500 0.034	16 x 25 2300 0.035	18 x 31.5 2600 0.040	18 x 40 3650 0.034
1,000	8 x 16 1130 0.073	8 x 20 1800 0.062	10 x 16 1450 0.047	10 x 20 2300 0.040	12.5 x 20 2100 0.068	16 x 25 2760 0.030		18 x 35.5 3200 0.036	
1,200	10 x 12.5 1330 0.053	10 x 16 1800 0.049		10 x 25 2650 0.035	12.5 x 25 2800 0.030			18 x 40 3600 0.035	
1,500	8 x 20 1350 0.051		10 x 20 2050 0.031	12.5 x 20 2400 0.036	16 x 20 3000 0.031				
1,800	10 x 16 1520 0.050	10 x 20 2250 0.038	10 x 25 2680 0.035	12.5 x 25 2800 0.030	16 x 25 3400 0.026				
2,200	10 x 20 1860 0.041	10 x 25 2650 0.035	12.5 x 20 2400 0.036	16 x 20 3000 0.030	16 x 25 3120 0.056				
2,700	10 x 25 1740 0.040	12.5 x 20 2380 0.039	12.5 x 25 2800 0.030	12.5 x 35 3400 0.024					
3,300	10 x 25 2000 0.036	12.5 x 25 2800 0.028	16 x 20 3000 0.028	16 x 25 3440 0.025					
3,900	12.5 x 20 2200 0.032		12.5 x 35 3300 0.024						
4,700	12.5 x 25 2750 0.030	16 x 20 3000 0.030	16 x 25 3330 0.025						
5,600	12.5 x 30 3150 0.028	16 x 25 3380 0.025							
8,200	16 x 25 3300 0.025	Case size : ΦD x L(mm) Maximum permissible ripple current[mA(rms) at 105℃, 100㎑] Impedance(Z) [Ω max. / 20℃ , 100㎑]							