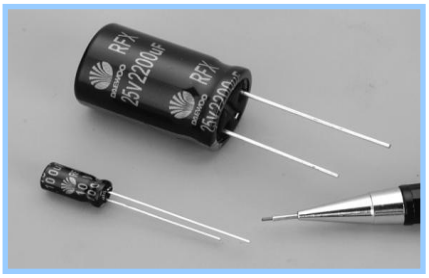
RFX SERIES

105℃, Long Life, Radial Leads

▣ Features

- **Very Low impedance at high frequency**
- **Large permissible ripple current**
- **For switching mode power supply**
- **Load life of 2,000~5,000 hours at 105℃**

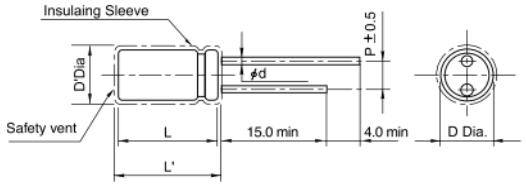


RF → Low Z → RFX

▣ Specifications

Item	Performance Characteristics								
Operating temperature range	-40℃ ~ +105℃								
Rated working voltage range	6.3V ~ 100V								
Nominal capacitance range	1 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	100
	Tan δ	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08
	When capacitance is over 1,000μF, Tanδ shell be added 0.02 to the listed value with increase of every each 1,000μF.								
Characteristics at low temperature(max.) (impedance ratio at 120Hz)	W.V(V)	6.3 ~ 10		16 ~ 35		50 ~ 100			
	Z-40℃/Z+20℃	3		3		2			
Load life	After applying rated working voltage for 5,000 hours at +105℃ and then listed being stabilized at +20℃, capacitors shall meet following limits. (Life time : See on the right table →)							Φ (D)	LIFE TIME
	Capacitance change	Within ± 25% of the initial measured						5~6.3	2Khr
	Tan δ	≤ 200% of the initial specified value						8	3Khr
	Leakage current	≤ The initial specified value						10	4Khr
Shelf life	After storage for 1,000hours at + 105℃ with no voltage applied and then being stabilized at +20℃,								
	Capacitance change	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
22				
33				
47			5 x 11 190 0.40	5 x 11 190 0.40
68				5 x 11 230 0.33
100		5 x 11 190 0.40	6.3 x 11 300 0.35	6.3 x 11 310 0.30
150	5 x 11 185 0.42	5 x 11 230 0.33	6.3 x 11 310 0.20	6.3 x 11 390 0.25
220	5 x 11 230 0.33	6.3 x 11 300 0.22	6.3 x 11 390 0.16	8 x 11.5 720 0.085
330	6.3 x 11 300 0.22	6.3 x 11 380 0.16	8 x 11.5 600 0.12	8 x 11.5 / 10 x 12.5 768 / 980 0.078 / 0.069
470	6.3 x 11 380 0.16	8 x 11.5 600 0.12	8 x 11.5 720 0.095	10 x 16 1280 0.046
680	8 x 11.5 600 0.12	8 x 11.5 720 0.085	8 x 16 800 0.068	10 x 16 1280 0.046
820	8 x 11.5 720 0.085	10 x 12.5 980 0.069		10 x 20 1650 0.033
1,000	8 x 16 770 0.073	8 x 16 / 10 x 12.5 768 / 980 0.076 / 0.069	8 x 20 / 10 x 16 1140 / 1280 0.042 / 0.046	10 x 20 1700 0.029
1,200	8 x 16 800 0.068	8 x 20 / 10 x 12.5 1140 / 1320 0.042 / 0.040	10 x 20 1470 0.051	12.5 x 20 1850 0.026
1,500	8 x 20 1100 0.060	10 x 16 / 12.5 x 16 1330 / 1402 0.053 / 0.036	10 x 20 1600 0.035	12.5 x 20 2200 0.029
2,200	10 x 20 1600 0.035	10 x 20 / 10 x 25 1980 / 2010 0.034 / 0.029	12.5 x 20 2050 0.027	12.5 x 30 / 16 x 20 2700 / 2900 0.027 / 0.024
2,700			12.5 x 25 2500 0.025	
3,300	10 x 25 1900 0.029	12.5 x 20 2050 0.027	12.5 x 25 / 16 x 20 2750 / 2800 0.025 / 0.024	16 x 25 3140 0.021
3,900	12.5 x 20 2200 0.027	12.5 x 25 2500 0.025	12.5 x 35 / 18 x 25 3000 / 3211 0.021 / 0.020	
4,700	12.5 x 25 2550 0.025	16 x 20 2800 0.024	16 x 25 3120 0.022	
5,600	16 x 20 2900 0.024	16 x 25 3120 0.022	16 x 31.5 3280 0.015	
6,800	16 x 25 3250 0.022	16 x 31.5 3280 0.015		
8,200	16 x 31.5 3400 0.015	**Case size : ΦD x L(mm)** **Maximum permissible ripple current[mA(rms) at 105℃, 100㎑]** **Impedance(Z) [Ω max. / 20℃ , 100㎑]**		

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▣ Dimensions, Ripple current & Impedance

μF \ V	35	50	63	100
1		5 x 11 49 2.8		
4.7		5 x 11 88 1.7		5 x 11 110 2.5
10		5 x 11 230 0.90		6.3 x 11 190 0.65
22		5 x 11 230 0.33	6.3 x 11 225 0.50	8 x 11.5 310 0.41
33	5 x 11 190 0.35	6.3 x 11 270 0.22	6.3 x 11 235 0.42	10 x 12.5 420 0.33
47	5 x 11 230 0.33	6.3 x 11 320 0.18	8 x 11.5 470 0.31	10 x 16 550 0.30
68			10 x 12.5 550 0.23	
100	6.3 x 11 380 0.16	8 x 11.5 680 0.085	10 x 16 900 0.17	12.5 x 20 920 0.17
150	8 x 11.5 720 0.085	10 x 12.5 920 0.077	10 x 20 980 0.095	12.5 x 25 1040 0.090
220	10 x 12.5 980 0.069	10 x 16 1260 0.058	12.5 x 20 1150 0.084	16 x 25 1450 0.075
330	10 x 12.5 980 0.069	10 x 20 1460 0.046	12.5 x 20 1350 0.053	16 x 31.5 1560 0.058
470	10 x 16 1330 0.053	12.5 x 20 1780 0.039	12.5 x 25 1840 0.045	16 x 31.5 1560 0.058
560	10 x 20 0.043 1620	12.5 x 20 0.041 2230		
680	10 x 20 1600 0.035	12.5 x 25 2650 0.023	16 x 25 2500 0.040	
820		16 x 20 2540 0.025		18 x 40 1820 0.042
1,000	12.5 x 25 2200 0.027	16 x 25 2810 0.023	16 x 35.5 2650 0.028	
1,200	12.5 x 25 2550 0.025	18 x 25 2920 0.022		
1,500	12.5 x 25 16 x 25 3010 2900 0.021 0.024	16 x 31.5 3000 0.016		
2,200	16 x 31.5 3400 0.015	**Case size : ΦD x L(mm)** **Maximum permissible ripple current[mA(rms) at 105℃, 100㎑]** **Impedance(Z) [Ω max. / 20℃ , 100㎑]**		