

RF Series

105°C 1000hours
Small size allows wider choice of capacitance and voltage
for automatic insertion



Dark Violet

Characteristics

Voltage Range	6.3-450V									
Capacitance Range	0.1-15000 uF									
Temperature Range	-40~+105°C									
Capacitance Tolerance	-20 ~ +20% (at 20°C, 120Hz)									
Leakage Current	I=0.01CV or 3uA Whichever is greater (After 2 minutes, 6.3-100V) I=0.03CV +10uA (After 2 minutes, 160-450V)									
Dissipation Factor (tan δ)	Rated voltage	6.3V	10V	16V	25V	35V	50V	63V	100V	
	tan δ (max.)	0.22	0.20	0.16	0.14	0.12	0.10	0.10	0.08	
	Rated voltage	160V	200V	250V	350V	400V	450V	(at 20°C, 120Hz)		
	tan δ (max.)	0.20	0.20	0.20	0.25	0.25	0.25			
	For capacitance > 1000uF, add 0.02 for every 1000uF.									
Low Temperature Stability	Impedance ratio at 120Hz									
	Rated voltage	6.3V	10V	16V	25V	35V	50V	63V	100V	
	Z-25°C/Z20°C	4	3	2	2	2	2	2	2	
	Z-40°C/Z20°C	10	8	6	4	3	3	3	3	
	Rated voltage	160V	200V	250V	350V	400V	450V			
	Z-25°C/Z20°C	4	8	8	20	20	20			
Load Life	After 1000 hours application of rated voltage at 105°C the capacitor shall meet the following characteristics									
	Capacitance change	Within ±20% of initial value								
	D.F. (tan δ)	150% or less of initial specified value								
	Leakage current	initial specified value or less								

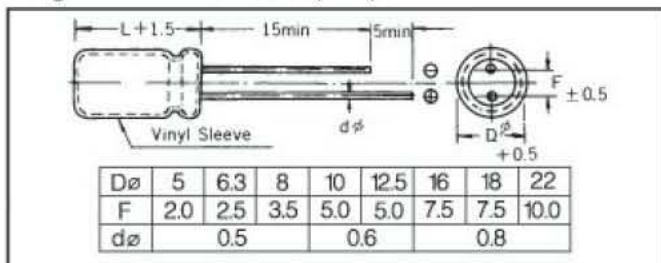
Maximum E.S.R. (Ω20°C 120Hz)

Maximum Ripple Current (mA rms 105°C 120Hz)

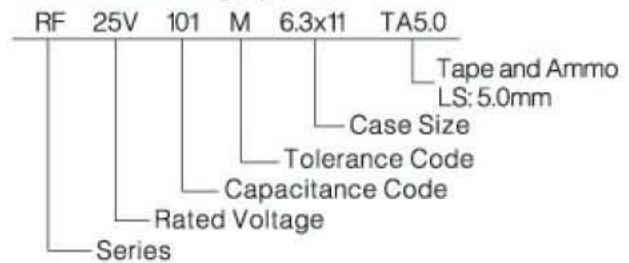
uF	WV	6.3		10		16		25		35		50		63		100	
		E.S.R.	IR	E.S.R.	IR	E.S.R.	IR	E.S.R.	IR	E.S.R.	IR	E.S.R.	IR	E.S.R.	IR	E.S.R.	IR
0.1												1348	4			1106	4
0.22												660	6			566	6
0.33												438	7			352	7
0.47												326	9			276	10
1												162	15			128	17
2.2												82.3	20			58.7	26
3.3												48.6	28			40.3	37
4.7												33.3	35			26.7	40
10												16.2	60	16.2	62	12.2	75
22												7.37	80	7.37	100	5.87	120
33								7.32	83	5.91	90	4.88	110	4.88	130	4.02	170
47						5.83	92	5.19	100	4.12	120	3.42	140	3.42	180	2.78	230
100				3.17	130	2.81	160	2.21	180	1.93	210	1.62	230	1.62	280	1.31	420
220				1.48	230	1.27	280	1.02	300	0.89	350	0.73	420	0.73	470	0.59	700
330	1.17	250	0.96	300	0.83	330	0.72	380	0.59	450	0.49	560	0.49	740	0.40	850	
470	0.90	330	0.71	380	0.56	450	0.49	500	0.42	610	0.34	760	0.34	900	0.28	1100	
1000	0.39	550	0.32	630	0.27	760	0.24	950	0.18	1100	0.16	1320	0.16	1500	0.10	1600	
2200	0.18	990	0.16	1050	0.13	1200	0.12	1450	0.11	1750	0.091	1970	0.091	2060			
3300	0.13	1150	0.12	1350	0.10	1500	0.095	1800	0.081	2090	0.070	2160					
4700	0.10	1500	0.092	1700	0.079	1900	0.078	2160	0.065	2300							
6800	0.82	1750	0.073	2000	0.070	2300	0.063	2460									
10000	0.068	2080	0.061	2370	0.061	2500	0.054	2700									
15000	0.062	2480	0.058	2560	0.053	2830											

uF \ WV	160		200		250		350		400		450	
	E.S.R.	I.R.	E.S.R.	I.R.	E.S.R.	I.R.	E.S.R.	I.R.	E.S.R.	I.R.	E.S.R.	I.R.
1	166.2	17	166.2	17	166.2	17	332.6	18	332.6	18	332.6	19
2.2	76.1	26	76.1	27	76.1	30	152.3	30	152.3	30	152.3	30
3.3	49.8	35	49.8	35	49.8	35	99.7	35	99.7	35	99.7	40
4.7	35.6	40	35.6	45	35.6	45	71.2	45	71.2	50	71.2	50
10	16.3	70	16.3	70	16.3	75	32.5	75	32.5	75	32.5	80
22	7.4	110	7.4	120	7.4	130	15.0	120	15.0	120	15.0	130
33	5.1	160	5.1	180	5.1	180	10.2	170	10.2	170	10.2	170
47	3.4	210	3.4	210	3.4	230	6.9	220	6.9	220	6.9	230
100	1.62	380	1.62	400	1.62	420	3.22	450	3.22	450	3.22	470
220	0.76	650	0.76	680	0.76	700						
330	0.63	750	0.63	780								
470	0.52	860										

Diagram of Dimensions (mm)



Part Numbering System



Case Size of Standard Products

uF \ WV	6.3	10	16	25	35	50	63	100
0.1-0.47						5x11		5x11
1						5x11		5x11
2.2						5x11		5x11
3.3						5x11		5x11
4.7						5x11		5x11
10						5x11	5x11	6.3x11
22						5x11	6.3x11	8x11.5
33				5x11	5x11	6.3x11	6.3x11	10x12.5
47			5x11	5x11	6.3x11	6.3x11	8x11.5	10x16
100		5x11	5x11	6.3x11	8x11.5	8x11.5	10x12.5	10x20
220		6.3x11	6.3x11	8x11.5	10x12.5	10x16	10x20	12.5x25
330	6.3x11	6.3x11	8x11.5	10x12.5	10x16	10x20	12.5x20	16x25
470	8x11.5	8x11.5	10x12.5	10x16	10x20	12.5x20	12.5x25	16x31.5
1000	8x11.5	10x12.5	10x16	10x20	12.5x25	16x25	16x31.5	22x36.5
2200	10x20	10x20	12.5x20	12.5x25	16x31.5	18x35.5	22x36.5	
3300	12.5x20	12.5x20	16x25	16x31.5	18x31.5	18x40		
4700	16x25	16x25	16x25	18x31.5	18x40			
6800	16x25	16x25	16x35.5	18x40				
10000	16x35.5	16x35.5	18x40	22x41				
15000	18x35.5	18x40	22x41					

uF \ WV	160	200	250	350	400	450
1	5x11	5x11	6.3x11	8x11.5	8x11.5	8x11.5
2.2	6.3x11	6.3x11	6.3x11	8x11.5	8x11.5	10x12.5
3.3	6.3x11	6.3x11	8x11.5	8x11.5	10x12.5	10x16
4.7	6.3x11	8x11.5	8x11.5	10x16	10x16	10x20
10	8x11.5	10x12.5	10x16	10x16	10x20	12.5x20
22	10x16	10x16	10x20	12.5x25	12.5x25	16x25
33	10x20	10x20	12.5x20	12.5x25	16x25	16x31.5
47	12.5x20	12.5x20	12.5x25	16x31.5	16x31.5	18x31.5
100	16x25	16x25	16x31.5	18x35.5	18x40	22x41
220	16x35.5	18x35.5	22x41			
330	18x40	22x41				
470	22x41					