KF Series Low Impedance

Features

- Used in communication equipments, switching power supply, industrial measuring instruments, etc.
- Load life 2000　5000 Hrs at 105℃
- Safety vent construction design.
- For detail specifications, please refer to Engineering Bulletin No. E126

Specifications

Item	Performance Characteristics	
Operating Temperature Range	-40 to +105℃	-25 to +105℃
Rated Voltage Range	6.3 to 100 VDC	160 to 450 VDC
Capacitance Range	0.47 to 15000 μF	0.47 to 220 μF
Capacitance Tolerance	±20%(120Hz,+20℃)	
Leakage Current (+20℃, max)	I≦0.01 CV or 2(μA) After 2 minutes whichever is greater measured with rated working voltage applied.	I≦0.03 CV (μA) After 1 minutes with rate working voltage applied.

Dissipation Factor (tam δ)

Working Voltage(VDC)	6.3	10	16	25	35	50	63	100
D. F.(%) max.	22	19	16	14	12	10	9	8

Working Voltage(VDC)	160	200	250	350	400	450
D. F.(%) max.	12	12	12	15	15	17

For capacitance ＞1000 μF, add 2% per another 1000uF.
(+20℃,at 120Hz)

Low Temperature Characteristics (120Hz)

Impedance ratio max. (at:120Hz)

Working Voltage(VDC)	6.3	10	16	25	35	50	63	100
Z-25℃/Z+20℃	4	3	3	3	3	3	2	2
Z-40℃/Z+20℃	8	6	4	3	3	3	3	3

Working Voltage(VDC)	160	200	250	350	400	450
Z-25℃/Z+20℃	2	2	3	5	5	6
Z-40℃/Z+20℃	3	6	6	6	6	—

Load Life

Test conditions
Duration time : as right
Ambient temperature : +105℃
Applied voltage : Rate DC working voltage

D φ	Life hours
5 - 6.3 φ	2000
8 φ	3000
≧ 10 φ	5000

(100-450V : 2000hrs)

After test requirements at +20℃
Capacitance change : ≦±20% of the initial measured value
Dissipation factor : ≦200% of the initial specified value
Leakage current : ≦The initial specified value

Shelf Life

Test conditions
Duration time : 1000Hrs
Ambient temperature : +105℃
Applied voltage : None

After test requirements at +20℃: Same limits as Load life.
Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes.

CapXon KF Series

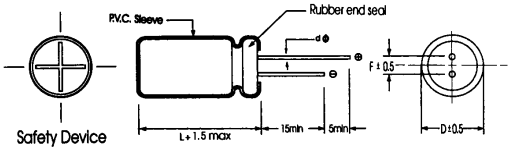
Multiplier for Ripple Current vs. Frequency

CAP(uF)\Hz		50(60)	120	400	1K	10K	50K-100K
Multiplier	CAP≦10	0.47	0.59	0.76	0.85	0.97	1
	10＜CAP≦100	0.52	0.62	0.80	0.89	0.97	1
	100＜CAP≦1000	0.58	0.72	0.84	0.90	0.98	1
	1000＜CAP	0.63	0.78	0.87	0.91	0.98	1

Multiplier for Ripple Current vs. Temperature

Temperature℃	45	60	85	95	105
Multiplier	2.10	1.90	1.65	1.25	1.00

Diagram of Dimensions:(Unit:mm)



Dφ	5	6.3	8	10	13	16	18
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
dφ	0.5			0.6		0.8	

Case Size

φDxL(mm)

WV (SV) / uF	6.3 (8)	10 (13)	16 (20)	25 (32)	35 (44)	50 (63)	63 (79)	100 (125)	160 (200)	200 (250)	250 (300)	350 (400)	400 (450)	450 (500)
0.47	→	→	→	→	→	5x11	5x11	5x11	5x11	5x11	5x11	6.3x11	6.3x11	8x11.5
1	→	→	→	→	→	5x11	5x11	5x11	6.3x11	6.3x11	6.3x11	8x11.5	10x12.5	10x12.5
2.2	→	→	→	→	→	5x11	5x11	5x11	6.3x11	6.3x11	8x11.5	10x12.5	10x16	10x16
3.3	→	→	→	→	→	5x11	5x11	5x11	8x11.5	8x11.5	8x11.5	10x16	10x20	10x20
4.7	→	→	→	→	→	5x11	5x11	5x11	8x11.5	10x12.5	10x12.5	10x20	10x20	13x20
10	→	→	→	→	→	5x11	5x11	6.3x11	10x16	10x16	10x20	13x20	13x25	13x25
22	→	→	→	→	5x11	6.3x11	6.3x11	8x11.5	10x20	10x20	13x25	16x25	16x25	16x31.5
33	→	→	→	5x11	5x11	6.3x11	6.3x11	10x12.5	13x20	13x20	13x25	16x31.5	16x31.5	18x35.5
47	→	5x11	5x11	6.3x11	6.3x11	6.3x11	8x11.5	10x16	13x25	13x25	16x25	18x35.5	18x35.5	—
100	5x11	6.3x11	6.3x11	6.3x11	8x11.5	10x12.5	10x12.5	13x20	16x25	16x31.5	18x35.5	—	—	—
220	6.3x11	6.3x11	8x11.5	8x11.5	10x12.5	10x16	10x20	16x25	18x35.5	18x41	18x41	—	—	—
330	6.3x11	8x11.5	8x11.5	10x12.5	10x16	10x20	13x20	16x31.5	—	—	—	—	—	—
470	8x11.5	8x11.5	10x12.5	10x16	10x20	13x20	13x25	16x35.5	—	—	—	—	—	—
1000	10x12.5	10x16	10x20	13x20	13x25	16x25	16x31.5	18x41	—	—	—	—	—	—
2200	10x25	13x20	13x25	16x25	16x31.5	18x35.5	18x41	—	—	—	—	—	—	—
3300	13x20	13x25	16x25	16x31.5	18x35.5	18x41	—	—	—	—	—	—	—	—
4700	13x30	16x25	16x31.5	18x35.5	18x41	—	—	—	—	—	—	—	—	—
6800	16x25	16x31.5	18x35.5	18x41	—	—	—	—	—	—	—	—	—	—
10000	16x31.5	18x35.5	18x41	—	—	—	—	—	—	—	—	—	—	—
15000	18x35.5	—	—	—	—	—	—	—	—	—	—	—	—	—

CapXon KF Series

Maximum Ripple Current

(mA, rms, 100k Hz. at 105℃)

WV (SV) / uF	6.3 (8)	10 (13)	16 (20)	25 (32)	35 (44)	50 (63)	63 (79)	100 (125)	160 (200)	200 (250)	250 (300)	350 (400)	400 (450)	450 (500)
0.47	→	→	→	→	→	25	25	20	12	12	12	11	11	11
1	→	→	→	→	→	40	33	30	17	17	17	17	16	17
2.2	→	→	→	→	→	55	45	42	25	25	30	30	27	28
3.3	→	→	→	→	→	60	58	55	35	35	40	38	35	35
4.7	→	→	→	→	→	90	65	72	42	48	50	48	42	48
10	→	→	→	→	→	120	110	130	70	80	85	80	70	70
22	→	→	→	→	150	150	240	220	125	135	150	130	110	115
33	→	→	→	155	180	250	270	320	175	185	190	160	140	145
47	→	150	155	180	280	290	300	420	210	215	230	200	170	—
100	170	180	265	370	450	480	530	560	330	330	340	—	—	—
220	285	285	450	550	750	630	710	880	500	510	—	—	—	—
330	390	460	590	730	1050	1150	1250	1440	—	—	—	—	—	—
470	450	550	750	1010	1200	1400	1620	1790	—	—	—	—	—	—
1000	750	1040	1200	1650	1900	2100	2350	—	—	—	—	—	—	—
2200	1470	1650	1900	2100	2850	3040	—	—	—	—	—	—	—	—
3300	1650	1700	2410	2680	2900	3100	—	—	—	—	—	—	—	—
4700	2100	2100	2680	2960	3000	—	—	—	—	—	—	—	—	—
6800	2450	2650	2900	3550	—	—	—	—	—	—	—	—	—	—
10000	2700	2850	3550	—	—	—	—	—	—	—	—	—	—	—
15000	2950	—	—	—	—	—	—	—	—	—	—	—	—	—

CapXon KF Series

Maximum Impedance

(Ω 100k Hz. at ±20℃)

WV (SV) / uF	6.3 (8)	10 (13)	16 (20)	25 (32)	35 (44)	50 (63)	63 (79)	100 (125)	160 (200)	200 (250)	250 (300)	350 (400)	400 (450)	450 (500)
0.47	→	→	→	→	→	6.30	6.30	20	—	—	—	—	—	—
1	→	→	→	→	→	4.00	4.00	9.5	—	—	—	—	—	—
2.2	→	→	→	→	→	2.80	2.80	6.5	—	—	—	—	—	—
3.3	→	→	→	→	→	2.40	2.40	4.5	—	—	—	—	—	—
4.7	→	→	→	4.0	4.0	2.40	2.40	2.40	—	—	—	—	—	—
10	→	→	5.20	2.9	2.8	2.00	1.90	2.40	—	—	—	—	—	—
22	→	2.90	2.80	2.0	1.50	1.30	0.80	1.80	—	—	—	—	—	—
33	→	2.80	2.00	1.56	1.30	0.80	0.61	0.68	—	—	—	—	—	—
47	→	1.44	1.36	1.30	0.80	0.70	0.56	0.46	—	—	—	—	—	—
100	1.10	0.60	0.50	0.35	0.25	0.17	0.14	0.37	—	—	—	—	—	—
220	0.70	0.35	0.25	0.156	0.114	0.076	0.070	0.18	—	—	—	—	—	—
330	0.35	0.25	0.156	0.114	0.079	0.065	0.055	0.10	—	—	—	—	—	—
470	0.25	0.150	0.114	0.076	0.065	0.055	0.050	0.09	—	—	—	—	—	—
1000	0.20	0.076	0.065	0.041	0.038	0.036	0.032	0.076	—	—	—	—	—	—
2200	0.13	0.041	0.038	0.036	0.034	0.032	0.024	—	—	—	—	—	—	—
3300	0.06	0.029	0.025	0.026	0.026	0.026	—	—	—	—	—	—	—	—
4700	0.036	0.034	0.026	0.024	0.024	—	—	—	—	—	—	—	—	—
6800	0.026	0.026	0.024	0.024	—	—	—	—	—	—	—	—	—	—
10000	0.024	0.024	0.024	—	—	—	—	—	—	—	—	—	—	—
15000	0.024	—	—	—	—	—	—	—	—	—	—	—	—	—