

ORGANIC SEMICONDUCTOR SOLID ELECTROLYTIC CAPACITORS

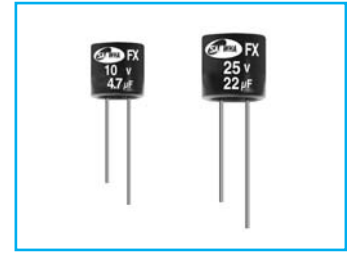
UPGRADE

FX

Lead type, With Organic Semiconductor Series

- Low impedance at high frequency
- High ripple current due to reduced ESR
- Excellent noise-absorbent characteristics
- Very stable capacitance, impedance and ESR against temperature
- Designed for use smoothing circuit of power supplies

APRO-CAP

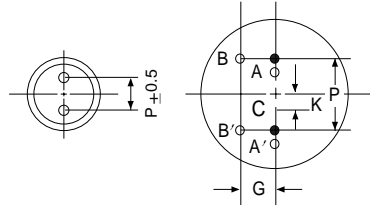
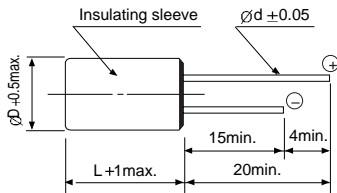


Item	Characteristics	
Operating temperature range	-55 ~ +105°C	
Leakage current max.	Not more than the values in Table 1	
Capacitance tolerance	±20% at 120Hz, 20°C	
Dissipation factor max.	Not more than the values in Table 1	
ESR	Not more than the values in Table 1	
Temperature characteristics (Impedance ratio at 100kHz)	Z-55°C / Z+20°C	Z+105°C / Z+20°C
	0.75 ~ 1.25	0.75 ~ 1.25
Load life * (after application of the rated voltage for 2000 hours at 105°C)	Leakage current	Less than specified value
	Capacitance change	Within ±20% of initial value
	tanδ	Less than 150% of specified value
Moisture resistance (after leaving capacitors under no load at 60°C for 1000 hours 90~95% R.H.)	Leakage current	Less than specified value
	Capacitance change	Within ±10% of initial value
	tanδ	Less than 150% of specified value

* Note: 1. To use an APRO-CAP when the operating temperature exceeds 85°C on a component with a rated voltage of 25V, reduce the voltage by 0.25V for every degree (1°C) relative to the value 85°C (25V).

2. If any doubt arises, measure the current after applying voltage (voltage treatment) for 30 minutes at 105°C. The rated voltage should be applied for 6.3 to 20WV, while a temperature reduction voltage should be applied for 25WV.

● DRAWING (Unit : mm)



C: The central point of A-A'

● PART NUMBER SYSTEM (See Page 50)

ØD × L	Code	P	Ød	K max.	G max.
5 × 6.8	0506H	2.0 ± 0.5	0.5	0.5	0.5
6.3 × 6.8	6L06H	2.5 ± 0.5	0.5	0.5	0.5
6.3 × 9.8	6L09H	2.5 ± 0.5	0.5	0.5	0.5
8 × 10.5	0810M	3.5 ± 0.5	0.6	0.8	0.8
10 × 10.5	1010M	5.0 ± 0.5	0.6	0.8	0.8
12.5 × 22	12022	5.0 ± 1.0	0.8	0.8	0.8
16 × 25	16025	7.5 ± 1.0	0.8	0.8	0.8

● DIMENSIONS

μF \ WV	6.3	10	16	20	25	30
1.0					5 × 6.8	5 × 6.8
1.5					5 × 6.8	5 × 6.8
2.2					5 × 6.8	6.3 × 6.8
3.3					5 × 6.8	6.3 × 6.8
4.7		5 × 6.8	5 × 6.8		6.3 × 6.8	6.3 × 9.8
6.8	5 × 6.8	5 × 6.8	5 × 6.8		6.3 × 6.8	6.3 × 9.8
10	5 × 6.8	5 × 6.8	6.3 × 6.8		6.3 × 6.8	8 × 10.5
15	5 × 6.8	6.3 × 6.8	6.3 × 6.8	6.3 × 6.8	6.3 × 9.8	
22	6.3 × 6.8	6.3 × 6.8	6.3 × 6.8	6.3 × 6.8	8 × 10.5	10 × 10.5
33	6.3 × 6.8	6.3 × 6.8	6.3 × 6.8	6.3 × 9.8	10 × 10.5	
47	6.3 × 6.8	6.3 × 9.8	6.3 × 9.8	8 × 10.5	10 × 10.5	
68	6.3 × 9.8	6.3 × 9.8	8 × 10.5	8 × 10.5		
100	8 × 10.5	8 × 10.5	8 × 10.5	10 × 10.5		
150	8 × 10.5	10 × 10.5	10 × 10.5			
220	10 × 10.5	10 × 10.5				
330	10 × 10.5		12.5 × 22			
470			16 × 25			
2200	16 × 25					
3300	16 × 25					

FX Series

● Table1. FX Series Characteristics List

WV	uF	øD(mm)	L(mm)	ESR(mΩ)max. at 20°C 100~300kHz	Ripple current (mA rms)at 45°C 100kHz	Dissipation factor at 20°C 120Hz	Leakage Current (uA)(max.) after 2minutes
6.3	6.8	5	6.8	180	720	0.07	0.86
6.3	10	5	6.8	150	780	0.07	1.26
6.3	15	5	6.8	120	815	0.07	1.89
6.3	22	6.3	6.8	70	1270	0.07	2.77
6.3	33	6.3	6.8	70	1320	0.07	4.16
6.3	47	6.3	6.8	60	1430	0.07	5.92
6.3	68	6.3	9.8	50	2000	0.07	8.57
6.3	100	8	10.5	30	2670	0.07	12.60
6.3	150	8	10.5	30	2780	0.07	18.90
6.3	220	10	10.5	27	3370	0.07	27.72
6.3	330	10	10.5	25	3500	0.07	41.58
6.3	2200	16	25	15	9750	0.13	554.40
6.3	3300	16	25	15	10100	0.13	831.60
10	4.7	5	6.8	180	720	0.07	0.94
10	6.8	5	6.8	150	745	0.07	1.36
10	10	5	6.8	150	780	0.07	2.00
10	15	6.3	6.8	90	1230	0.07	3.00
10	22	6.3	6.8	70	1270	0.07	4.40
10	33	6.3	6.8	70	1370	0.07	6.60
10	47	6.3	9.8	60	2020	0.07	9.40
10	68	6.3	9.8	50	2000	0.07	13.60
10	100	8	10.5	30	2670	0.07	20.00
10	150	10	10.5	28	3260	0.07	30.00
10	220	10	10.5	27	3370	0.07	44.00
16	1	5	6.8	350	430	0.07	0.50
16	1.5	5	6.8	300	435	0.07	0.50
16	2.2	5	6.8	200	695	0.07	0.70
16	3.3	5	6.8	200	700	0.07	1.06
16	4.7	5	6.8	180	720	0.07	1.50
16	6.8	5	6.8	150	745	0.07	2.18
16	10	6.3	6.8	90	1150	0.07	3.20
16	15	6.3	6.8	90	1230	0.07	4.80
16	22	6.3	9.8	70	1800	0.07	7.04
16	33	6.3	6.8	70	1370	0.07	10.56
16	47	6.3	9.8	60	1830	0.07	15.04
16	68	8	10.5	36	2600	0.07	21.76
16	100	8	10.5	30	2740	0.07	32.00
16	150	10	10.5	28	3260	0.07	48.00
16	470	12.5	22	20	6080	0.08	300.80
16	1000	16	25	15	9750	0.09	640.00
20	15	6.3	6.8	90	1200	0.07	6.00
20	22	6.3	6.8	70	1300	0.07	8.80
20	33	6.3	9.8	70	1710	0.07	13.20
20	47	8	10.5	40	2450	0.07	18.80
20	68	8	10.5	36	2600	0.07	27.20
20	100	10	10.5	30	3210	0.07	40.00
25	1	5	6.8	350	430	0.07	0.50
25	1.5	5	6.8	300	435	0.07	0.75
25	2.2	5	6.8	200	695	0.07	1.10
25	3.3	5	6.8	200	700	0.07	1.65
25	4.7	6.3	6.8	100	1130	0.07	2.35
25	6.8	6.3	6.8	100	1140	0.07	3.40
25	10	6.3	6.8	90	1150	0.07	5.00
25	15	6.3	9.8	70	1650	0.07	7.50
25	22	8	10.5	40	2330	0.07	11.00
25	33	10	10.5	35	2900	0.07	16.50
25	47	10	10.5	35	2980	0.07	23.50
30	1	5	6.8	350	430	0.07	1.00
30	1.5	5	6.8	300	435	0.07	1.00
30	2.2	6.3	6.8	250	695	0.07	1.32
30	3.3	6.3	6.8	200	820	0.07	1.98
30	4.7	6.3	9.8	120	1300	0.07	2.82
30	6.8	6.3	9.8	120	1340	0.07	4.08
30	10	8	10.5	110	1380	0.07	6.00
30	22	10	10.5	80	1830	0.07	13.20