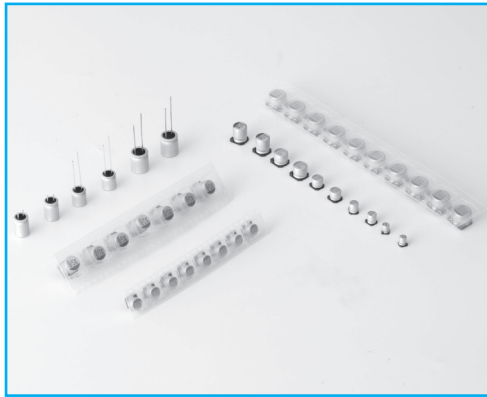


3 CONDUCTIVE POLYMER ALUMINUM ELECTROLYTIC CAPACITORS



CONDUCTIVE POLYMER ALUMINUM ELECTROLYTIC CAPACITORS

FA Chip type, With Conductive Polymer Series

Hi-CAP



- Low ESR, high ripple current
- Designed for surface mounting on high density PC board
- Load life for 2000 hours at 105°C
- Complied to the RoHS directive

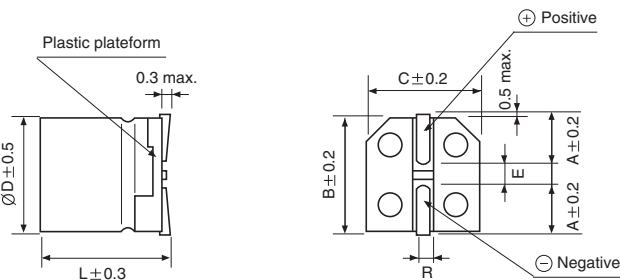
Item	Characteristics	
Operating temperature range	-55 ~ +105°C	
Leakage current max.*	Less than or equal to the value of Table1	
Capacitance tolerance	±20% at 120Hz, 20°C	
Dissipation factor max.	Less than or equal to the value of Table1	
ESR	Less than or equal to the value of Table1	
Temperature characteristics (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, In case of 25WV is applied 20V)	Leakage current	Less than specified value
	Capacitance change	Within ±20% of initial value
	tanδ	Less than 150% of specified value
Resistance to soldering heat (Refer to Page 37 for soldering recommendation)	Leakage current	Less than specified value
	Capacitance change	Within ±10% of initial value
	tanδ	Less than 130% of specified value

* In case of some problems for measured values, measure after applying rated voltage for 2.5 to 20V products or 20V derating voltage for 25V products for 120 minutes at 105°C.

DRAWING

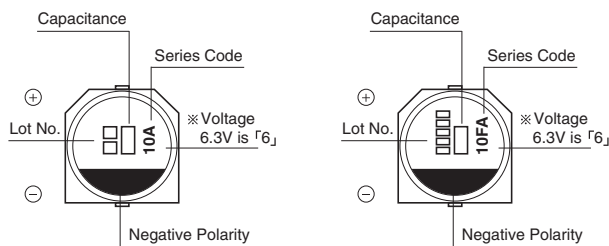
Unit : mm

< Dimensions >



Size	ØD	L	B	C	E	A	R
4×5.4	4	5.4	4.3	4.3	1.0	1.9	0.5~0.8
5×5.9	5	5.9	5.3	5.3	1.4	2.2	0.5~0.8
6.3×5.9	6.3	5.9	6.6	6.6	2.2	2.45	0.5~0.8
8×6.9	8	6.9	8.3	8.3	3.2	2.9	0.5~0.8
8×11.9	8	11.9	8.3	8.3	3.2	2.9	0.8~1.1
10×7.9	10	7.9	10.3	10.3	4.6	3.2	0.8~1.1
10×12.6	10	12.6	10.3	10.3	4.6	3.2	0.8~1.1

< Marking >



(Ø4, Ø5)

(Ø6.3, Ø8, Ø10)

Series Code "A"

FA Series

● Table1. FA(SMD type) Series Characteristics List

WV	μF	∅D(mm)	L(mm)	ESR(mΩ)max. 100~300kHz	Ripple current (mA rms)at 105°C 100kHz	Dissipation factor 120Hz	Leakage Current (μA)(max.) after 2 minutes
2.5	180	5	5.9	19	2800	0.10	300
2.5	390	6.3	5.9	15	3160	0.10	300
2.5	560	6.3	5.9	16	3500	0.10	300
2.5	680	8	6.9	20	3370	0.10	500
2.5	820	8	11.9	9	5380	0.10	500
2.5	1000	8	11.9	10	5380	0.10	500
2.5	1200	8	11.9	10	5150	0.10	750
2.5	2700	10	12.6	12	5070	0.10	1350
4	150	5	5.9	20	2730	0.10	300
4	330	6.3	5.9	15	3160	0.10	300
4	560	8	6.9	22	3220	0.10	500
4	560	8	11.9	9	5380	0.10	500
4	1200	8	11.9	12	4700	0.10	960
4	1500	8	11.9	12	4700	0.10	1200
6.3	100	5	5.9	25	2150	0.10	300
6.3	120	5	5.9	21	2660	0.10	300
6.3	220	6.3	5.9	15	3160	0.10	300
6.3	330	6.3	5.9	17	3390	0.10	415
6.3	390	8	6.9	22	3220	0.10	491
6.3	820	8	11.9	12	4700	0.10	1033
10	68	5	5.9	23	2540	0.10	300
10	120	6.3	5.9	22	2600	0.10	300
10	150	6.3	5.9	22	2600	0.10	300
10	270	8	6.9	22	3220	0.10	500
16	39	5	5.9	27	2350	0.10	300
16	68	6.3	5.9	25	2440	0.10	300
16	82	6.3	5.9	25	2490	0.10	300
16	100	6.3	5.9	24	2490	0.10	300
16	120	8	6.9	27	2900	0.10	500
16	150	8	6.9	22	3220	0.10	500
16	270	8	11.9	16	4070	0.10	864
16	330	8	11.9	16	4070	0.10	1056

SOLID TYPES

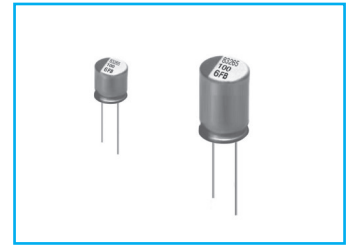
● FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT

Frequency	120Hz	1kHz	10kHz	100 ~ 500kHz
Coefficient	0.05	0.3	0.7	1

CONDUCTIVE POLYMER ALUMINUM ELECTROLYTIC CAPACITORS

FB Lead type, With Conductive Polymer Series

Hi-CAP



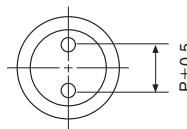
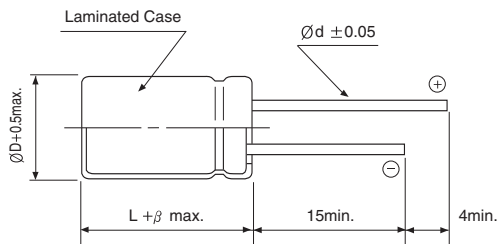
- Low ESR, high ripple current
- Load life for 2000 hours at 105°C
- Complied to the RoHS directive

Item	Characteristics	
Operating temperature range	-55 ~ +105°C	
Leakage current max.*	Less than or equal to the value of Table1	
Capacitance tolerance	±20% at 120Hz, 20°C	
Dissipation factor max.	Less than or equal to the value of Table1	
ESR	Less than or equal to the value of Table1	
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, In case of 25WV is applied 20V)	Leakage current	Less than specified value
	Capacitance change	Within ±20% of initial value
	tanδ	Less than 150% of specified value

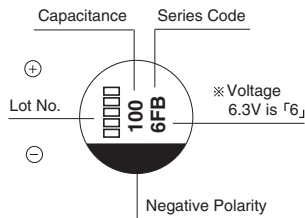
* In case of some problems for measured values, measure the after applying rated voltage for 2.5 to 20V products or 20V derating voltage for 25V products for 120 minutes at 105°C.

● DRAWING

Unit : mm



Size	ØD	L	P	Ød	β
5×9	5	9.0	2.0	0.45	1.5
6.3×6	6.3	6.0	2.5	0.45	1.5
6.3×8	6.3	8.0	2.5	0.45	1.5
8×7	8.0	7.0	3.5	0.45	1.5
8×9	8.0	9.0	3.5	0.60	1.5
8×12	8.0	12.0	3.5	0.60	1.5
10×13	10.0	13.0	5.0	0.60	1.5



FB Series

● Table 1. FB(Lead type) Series Characteristics List

WV	μF	∅D(mm)	L(mm)	ESR(mΩ)max. 100~300kHz	Ripple current (mA rms)at 105°C 100kHz	Tangent of loss angle(max.)	Leakage Current (μA)(max.)
2.5	220	5	9	7	4180	0.10	500
2.5	330	5	9	7	4180	0.10	500
2.5	330	6.3	9	7	5600	0.10	500
2.5	470	5	9	7	4180	0.10	500
2.5	560	5	5.9	7	4180	0.10	500
2.5	560	6.3	9	7	5600	0.10	500
2.5	560	8	9	7	6100	0.10	500
2.5	820	6.3	9	7	5600	0.10	500
2.5	820	8	7	8	5300	0.10	500
2.5	820	8	9	7	6100	0.10	500
2.5	820	8	12	7	6100	0.10	500
2.5	1000	8	9	7	6100	0.10	500
2.5	1500	8	9	7	6100	0.10	750
2.5	2700	10	13	10	5560	0.10	1350
2.5	3500	10	13	10	5560	0.10	1750
4	560	6.3	9	7	5600	0.10	500
4	560	8	9	7	6100	0.10	500
4	560	8	12	7	6100	0.10	500
4	680	8	12	7	6100	0.10	544
4	820	10	13	7	6640	0.10	656
4	1000	8	9	7	6100	0.10	800
4	1000	10	13	7	6640	0.10	800
4	1200	8	9	7	6100	0.10	960
6.3	220	6.3	6	18	2980	0.10	277
6.3	470	6.3	9	7	5600	0.10	592
6.3	470	8	9	7	5700	0.10	592
6.3	470	8	12	7	5700	0.10	592
6.3	560	6.3	9	7	5600	0.10	705
6.3	560	8	9	7	5700	0.10	705
6.3	680	10	13	7	6640	0.10	857
6.3	820	8	9	7	5700	0.10	1033
6.3	820	8	12	7	5700	0.10	1033
6.3	1500	10	13	10	5560	0.10	1890
10	100	6.3	6	26	2400	0.10	300
10	270	8	7	22	3220	0.10	500
16	100	6.3	6	24	2490	0.10	320
16	100	6.3	9	10	4680	0.10	500
16	150	8	7	22	3220	0.10	500
16	180	8	9	10	5000	0.10	576
16	180	8	12	16	4360	0.10	576
16	220	8	7	13	4150	0.10	500
16	270	8	9	10	5000	0.10	864
16	270	8	12	11	5000	0.10	864
16	330	8	9	11	4520	0.10	1056
16	330	8	12	11	5000	0.10	1056
16	470	10	13	10	6100	0.10	1504

● FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT

Frequency	120Hz	1kHz	10kHz	100 ~ 500kHz
Coefficient	0.05	0.3	0.7	1