



# CONDUCTIVE POLYMER HYBRID ALUMINUM ELECTROLYTIC CAPACITORS

## FPX Series

- High reliability is realized by hybrid electrolyte
- High Ripple Current
- -55~+125°C
- Endurance 125°C, 4,000hrs
- AEC-Q200 compliant : Please contact us for more details, test data, information.

FPW

FPX

Downsized.



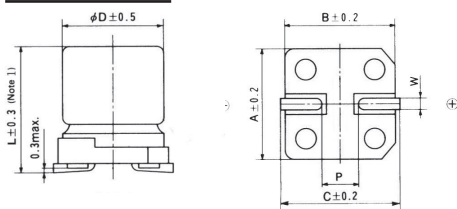
## SPECIFICATIONS

Item	Characteristics				
Category temperature range	-55 to +125℃				
Rated voltage range	16 to 35V <sub>dc</sub>				
Surge voltage	Rated Voltage(WV)		16	25	35
	Surge Voltage(SV)		18.4	31.3	43.8
Capacitance tolerance	±20% (M) (at 20℃, 120Hz)				
Tangent of loss angle	Shall not exceed the value in Ratings of FPX series, (at 20℃, 120Hz)				
Leakage Current ※ 1	Shall not exceed the value in Ratings of FPX series, (at 20℃, 2minutes)				
ESR	Shall not exceed the value in Ratings of FPX series, (at 20℃, 100kHz)				
Impedance Ratio (Characteristics at low temp.)	Impedance		Ratio		
	Z(-25℃) / Z(+20℃)		< 1.5		
	Z(-55℃) / Z(+20℃)		< 2.0 (at 100kHz)		
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage is applied for 4,000 hours at 125℃. Capacitance change ≤ ±30% of the initial value Tanδ ≤ ±200% of the initial specified value ESR ≤ ±200% of the initial specified value Leakage current ≤ The initial specified value				
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 1,000 hours at 125℃ without voltage applied, The rated voltage shall be applied to the capacitors for a minimum of 30 minutes, at lest 24hours and not more than 48 hours and not more than 48 hours before the measurements, Capacitance change ≤ ±30% of the initial value Tanδ ≤ ±200% of the initial specified value ESR ≤ ±200% of the initial specified value Leakage current ≤ The initial specified value				
Bias Humidity	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjecting them to the DC rated voltage at 85℃, 85% RH for 2000hours Capacitance change ≤ ±30% of the initial value Tanδ ≤ ±200% of the initial specified value ESR ≤ ±200% of the initial specified value Leakage current ≤ The initial specified value				

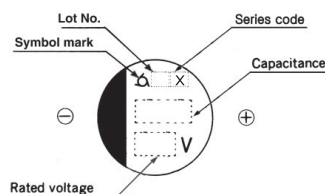
※ 1, if any doubt arises, measure the leakage current after following voltage treatment,  
(Voltage treatment : Applying rated voltage for 120minutes at 125°C)

※ 2, Reflow Condition : Refer to 46 Page

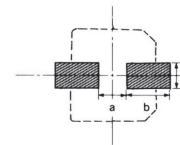
## DIMENSIONS



## MARKING



## Recommended solder land on PC board



■ : Solder pad on PC board

Note1 : L±0.7 for 10×10(J10)

UNIT(mm)

CASE CODE	ΦD	L	A	B	C	W	P	a	b	c
H10	8	10.0	8.3	8.3	9.0	0.7 ~ 1.1	3.1	3.1	4.2	2.2
J10	10	10.0	10.3	10.3	11.0	0.7 ~ 1.1	4.5	4.5	4.4	2.2

## RATED RIPPLE CURRENT MULTIPLIES

Frequency(Hz)	120	1K	5K	10K	20K	30K	100K ~500K
Capacitance(μF)	270 ~ 1000	0.15	0.50	0.70	0.75	0.85	1.00



RATINGS OF FPX Series

Case Code	Rated Voltage (V)	Rated Capacitance(μF)	ESR(mΩ) (at 100kHz)	Rated Ripple Current(mArms/ 105℃,100kHz)	Tangent of loss angle	Leakage Current (μA)
H10	16	560	20	3,100	0.16	90
	25	390	22	3,100	0.14	98
	35	270	22	3,100	0.12	95
J10	16	1000	18	3,500	0.16	160
	25	680	20	3,500	0.14	170
	35	470	20	3,500	0.12	165