



CONDUCTIVE POLYMER HYBRID ALUMINUM ELECTROLYTIC CAPACITORS

FQV Series

- Wide Temperature range
- High Ripple Current
- -55℃~+150℃
- Endurance 150℃, 1,000hrs
- AEC-Q200 compliant : Please contact us for more details, test data, information.

FRV

High Temp

FQV



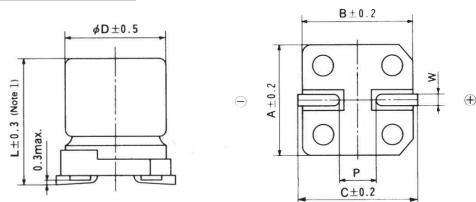
SPECIFICATIONS

Item	Characteristics				
Category temperature range	-55 to +150℃				
Rated voltage range	25 to 63Vdc				
Surge voltage	Rated Voltage(WV)	25	35	50	63
	Surge Voltage(SV)	31,3	43,8	62,5	78,8
Capacitance tolerance	±20% (M) (at 20℃, 120Hz)				
Tangent of loss angle	Shall not exceed the value in Ratings of FQV series, (at 20℃, 120Hz)				
Leakage Current ※ 1	Shall not exceed the value in Ratings of FQV series, (at 20℃, 2minutes)				
ESR	Shall not exceed the value in Ratings of FQV 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 1,000 hours at 150℃. 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 150℃ without voltage applied, The rated voltage shall be applied to the capacitors for a minimum of 30 minutes, at least 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				

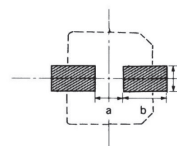
※ 1. if any doubt arises, measure the leakage current after following voltage treatment.
(Voltage treatment : Applying rated voltage for 120minutes at 150℃)

※ 2. Reflow Condition : Refer to 46 Page

DIMENSIONS

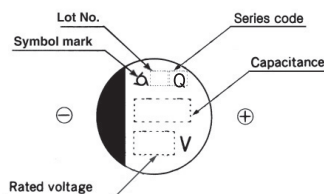


Recommended solder land on PC board



■ : Solder pad on PC board

MARKING



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)							
~ 47	0,10	0,30	0,50	0,60	0,70	0,75	1,00
47 ~ 150	0,15	0,40	0,60	0,70	0,80	0,80	1,00
150 ~ 270	0,15	0,45	0,65	0,75	0,85	0,85	1,00

RATINGS OF FQV Series

Case Code	Rated Voltage (V)	Rated Capacitance (μF)	ESR(mΩ) (at 100kHz)	Rated Ripple Current (mA _{rms} /150℃, 100kHz)	Tangent of loss angle	Leakage Current (μA)
H10	25	150	27	800	0.14	38
	35	100	30	770	0.12	35
	50	56	35	700	0.10	28
	63	33	40	650	0.08	21
J10	25	270	20	1,000	0.14	68
	35	150	23	950	0.12	53
	50	100	28	900	0.10	50
	63	56	30	840	0.08	35