FPW Series

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

FPV → FPW

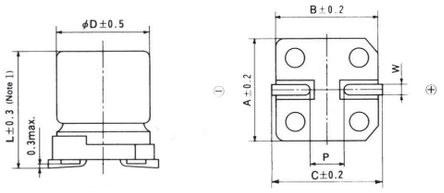
Downsized

SPECIFICATIONS

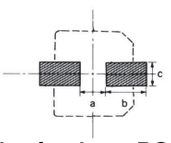
Item	Characteristics
Category temperature range	-55 to +125℃
Rated voltage range	16 to 63VDC
Surge voltage	Rated Voltage(WV): 16 / 25 / 35 / 50 / 63 — Surge Voltage(SV): 18.4 / 29.0 / 40.0 / 57.5 / 72.5
Capacitance tolerance	±20%(M) (at 20℃, 120Hz)
Tangent of loss angle	Shall not exceed the value in Ratings of FPW series. (at 20℃, 120Hz)
Leakage Current ※ 1	Shall not exceed the value in Ratings of FPW series. (at 20℃, 2 minutes)
ESR	Shall not exceed the value in Ratings of FPW series. (at 20℃, 100kHz)
Impedance Ratio (Characteristics at low temp.)	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; Tan δ ≦ ±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 least 24 hours and not more than 48 hours before the measurements. Capacitance change ≦ ±30% of the initial value; Tan δ ≦ ±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 2,000 hours. Capacitance change ≦ ±30% of the initial value; Tan δ ≦ ±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℃)
※ 2. Reflow Conditions : Refer to 46 page

DIMENSIONS



Recommended solder land on PC board



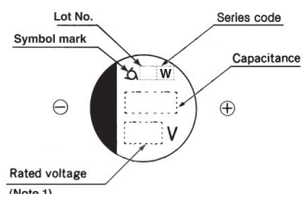
▨ : Solder land on PC board

Note 1 : L±0.7 for 10×10(J10)

Unit(mm)

Case code	ø D	L	A	B	C	W	P	a	b	c
F61	6.3	5.8	6.6	6.6	7.2	0.5-0.8	1.9	1.9	3.5	1.6
F80	6.3	7.7	6.6	6.6	7.2	0.5-0.8	1.9	1.9	3.5	1.6
H10	8.0	10.0	8.3	8.3	9.0	0.7-1.1	3.1	3.1	4.2	2.2
J10	10.0	10.0	10.3	10.3	11.0	0.7-1.1	4.5	4.5	4.4	2.2

MARKING



RATED RIPPLE CURRENT MULTIPLIERS

Cap.(㎌) \ Freq.(Hz)	120	1k	5k	10k	20k	30k	100k ~500k
~ 10	0.03	0.30	0.50	0.60	0.70	0.75	1.00
15 ~ 33	0.07	0.30	0.50	0.60	0.70	0.75	1.00
39 ~ 150	0.10	0.40	0.60	0.70	0.80	0.80	1.00
220 ~ 560	0.13	0.45	0.65	0.75	0.85	0.85	1.00

RATINGS OF FPW Series

Case Code	Rated Voltage (V)	Rated Capacitance(μF)	ESR(mΩ) (at 100kHz)	Rated Ripple Current(mArms/ 125℃, 100kHz)	Tangent of loss angle	Leakage Current (μA)
F61	16	150	45	1,080	0.16	24
	25	68	50	1,300	0.14	17
	25	82	50	1,300	0.14	21
	25	100	50	1,300	0.14	25
	35	56	60	1,200	0.12	20
	35	68	60	1,200	0.10	24
F80	16	220	27	1,800	0.16	35
	25	150	30	1,800	0.14	38
	25	180	30	1,800	0.14	45
	35	100	35	1,700	0.12	35
	35	120	35	1,700	0.12	42
H10	16	470	20	2,000	0.16	75
	25	270	22	2,000	0.14	68
	25	330	22	2,000	0.14	83
	35	180	22	2,000	0.12	63
	35	220	22	2,000	0.12	77
	50	82	30	1,700	0.10	41
	63	56	40	1,700	0.08	35
J10	16	820	18	2,800	0.16	131
	25	470	20	2,800	0.14	118
	25	560	20	2,800	0.14	140
	35	330	20	2,800	0.12	116
	35	390	20	2,800	0.12	137
	50	150	25	2,000	0.10	75
	63	100	30	2,000	0.08	63