

# FPCAP Functional Polymer Aluminum Solid Electrolytic Capacitors

## PS & PA series

### Features

By using Functional Polymer cathode, Frequency & Temp. characteristics are greatly improved.

- Low ESR at a high frequency range.
- High ripple current capability.
- Long life and high reliability.

### Applications

- Switching Power Supply and DC/DC Converter.
- Back up Power Supplies of CPU (VRM etc.)
- Miniature high Power Supply.

### Environmental Correspondence

- Any environmental hazardous substances are not used.
- The lead free of terminal plating (Sn 100%)

### Specifications

Items		Characteristic
		PS, PA
Operating temp. range		-55 to +105°C
Rated voltage range		2.5 to 63V-DC
Capacitance range		8.2 to 1500 $\mu$ F
Capacitance tolerance		$\pm$ 20% (M)
Endurance	Test condition	105°C, rated voltage 2000Hrs.
	Capacitance	Within $\pm$ 20% of initial value before test
	Leakage current	Not to exceed the initial specified value
	ESR	Not to exceed 150% of initial specified value
	tan $\delta$	Not to exceed 150% of initial specified value
Failure Rate		0.5% / 1000Hrs. Max (60%CL)

### Size List ( ) : PA series

R.V. (S.V.)	2.5 (2.8)	4.0 (4.6)	6.3 (7.2)	10 (11.5)	16 (18.4)	25 (28.7)	50 (57.5)	63 (72.5)
8.2								6.3×5.7
12							6.3×5.7	8×6.7
22						8×6.7	8×6.7	10×7.7
33							10×7.7	8×11.7
39					6.3×5.7 (6.3×5.7)			
47				6.3×5.7			8×11.7	
56				6.3×5.7	8×6.7			10×12.4
82			6.3×5.7		8×6.7		10×12.4	
100		6.3×5.7			10×7.7			
120				8×6.7				
150			8×6.7		10×7.7			
180			8×6.7		8×11.7			
220		8×6.7			8×11.7 (10×7.7)			
270				10×7.7	8×11.7			
330		8×6.7	10×7.7	8×11.7 (10×7.7)	10×12.4			
470		10×7.7	8×11.7					
560		8×11.7 (8×11.7)	8×11.7	10×12.4				
680	8×11.7		10×12.4					
820			10×12.4					
1000			10×12.4					
1200		10×12.4						
1500	10×12.4							

Low ESR

High Voltage

SMD

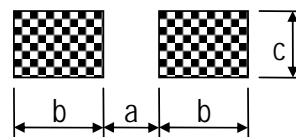
Lead-free

RoHS Compliance

UPGRADE



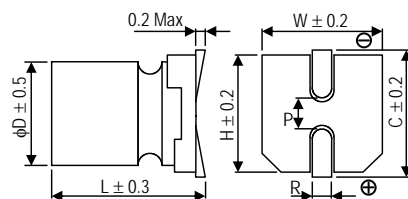
### Recommended land pattern



[Unit: mm]

$\phi$ D	a	b	c
6.3	2.1	3.5	1.6
8	2.8	4.2	1.9
10	4.3	4.4	1.9

### Dimensions



[Unit: mm]

$\phi$ D×L	W	H	C	R	P
6.3×5.7	6.5	6.5	7.2	0.5 to 0.9	2.1
8×6.7	8.3	8.3	9.0	0.8 to 1.1	3.2
8×11.7	8.3	8.3	9.0	0.8 to 1.1	3.2
10×7.7	10.3	10.3	11.0	0.8 to 1.1	4.6
10×12.4	10.3	10.3	11.0	0.8 to 1.1	4.6

## ● Part number & Specifications

Rated Voltage (V)	Rated Capacitance (μF, 120Hz)	Part Number		Leakage Current * (μA, 2 min)	tanδ (120Hz)	ESR (mΩ, 100kHz)	Rated Ripple Current (mA, r.m.s.)	Case Size φD×L(mm)	
		NICHICON	FPCAP						
2.5	680	RPS0E681MCN1GS	FP-2R5ME681M-PSR	425	0.12	13	4500	8 × 11.7	
	1500	RPS0E152MCN1GS	FP-2R5ME152M-PSR	938	0.12	10	5500	10 × 12.4	
4.0	100	RPS0G101MCN1GS	FP-4R0ME101M-PSR	80	0.12	35	2200	6.3 × 5.7	
	220	RPS0G221MCN1GS	FP-4R0ME221M-PSR	176	0.12	30	2700	8 × 6.7	
	330	RPS0G331MCN1GS	FP-4R0ME331M-PSR	264	0.12	30	2700	8 × 6.7	
	470	RPS0G471MCN1GS	FP-4R0ME471M-PSR	376	0.12	22	3800	10 × 7.7	
	560	RPS0G561MCN1GS	FP-4R0ME561M-PSR	448	0.12	13	4500	8 × 11.7	
	560	RPA0G561MCN1GS	FP-4R0ME561M-PAR	448	0.12	9	5400	8 × 11.7	
6.3	1200	RPS0G122MCN1GS	FP-4R0ME122M-PSR	960	0.12	12	5500	10 × 12.4	
	82	RPS0J820MCN1GS	FP-6R3ME820M-PSR	103	0.12	35	2200	6.3 × 5.7	
	150	RPS0J151MCN1GS	FP-6R3ME151M-PSR	189	0.12	30	2600	8 × 6.7	
	180	RPS0J181MCN1GS	FP-6R3ME181M-PSR	227	0.12	30	2600	8 × 6.7	
	330	RPS0J331MCN1GS	FP-6R3ME331M-PSR	416	0.12	22	3600	10 × 7.7	
	470	RPS0J471MCN1GS	FP-6R3ME471M-PSR	592	0.15	15	4300	8 × 11.7	
	560	RPS0J561MCN1GS	FP-6R3ME561M-PSR	706	0.15	14	4400	8 × 11.7	
	680	RPS0J681MCN1GS	FP-6R3ME681M-PSR	643	0.15	13	5200	10 × 12.4	
10	820	RPS0J821MCN1GS	FP-6R3ME821M-PSR	775	0.15	12	5500	10 × 12.4	
	1000	RPS0J102MCN1GS	FP-6R3ME102M-PSR	945	0.15	12	5500	10 × 12.4	
	47	RPS1A470MCN1GS	FP-010ME470M-PSR	94	0.12	40	2100	6.3 × 5.7	
	56	RPS1A560MCN1GS	FP-010ME560M-PSR	112	0.12	40	2100	6.3 × 5.7	
	120	RPS1A121MCN1GS	FP-010ME121M-PSR	240	0.12	30	2600	8 × 6.7	
	270	RPS1A271MCN1GS	FP-010ME271M-PSR	540	0.12	25	3500	10 × 7.7	
	330	RPS1A331MCN1GS	FP-010ME331M-PSR	660	0.15	17	4000	8 × 11.7	
	330	RPA1A331MCN1GS	FP-010ME331M-PAR	660	0.12	20	3600	10 × 7.7	
16	560	RPS1A561MCN1GS	FP-010ME561M-PSR	840	0.15	13	5300	10 × 12.4	
	39	RPS1C390MCN1GS	FP-016ME390M-PSR	125	0.10	45	2000	6.3 × 5.7	
	39	RPA1C390MCN1GS	FP-016ME390M-PAR	125	0.10	24	2500	6.3 × 5.7	
	56	RPS1C560MCN1GS	FP-016ME560M-PSR	179	0.10	40	2300	8 × 6.7	
	82	RPS1C820MCN1GS	FP-016ME820M-PSR	262	0.10	40	2300	8 × 6.7	
	100	RPS1C101MCN1GS	FP-016ME101M-PSR	320	0.10	30	3200	10 × 7.7	
	150	RPS1C151MCN1GS	FP-016ME151M-PSR	480	0.10	30	3200	10 × 7.7	
	180	RPS1C181MCN1GS	FP-016ME181M-PSR	576	0.12	20	3700	8 × 11.7	
	220	RPS1C221MCN1GS	FP-016ME221M-PSR	704	0.12	20	3700	8 × 11.7	
	220	RPA1C221MCN1GS	FP-016ME221M-PAR	704	0.10	22	3450	10 × 7.7	
	270	RPS1C271MCN1GS	FP-016ME271M-PSR	864	0.12	14	4400	8 × 11.7	
25	330	RPS1C331MCN1GS	FP-016ME331M-PSR	792	0.12	16	4800	10 × 12.4	
	22	RPS1E220MCN1GS	FP-025ME220M-PSR	275	0.12	50	1800	8 × 6.7	
	50	12	RPS1H120MCN1GS	FP-050ME120M-PSR	120	0.12	40	1250	6.3 × 5.7
		22	RPS1H220MCN1GS	FP-050ME220M-PSR	220	0.12	37	1550	8 × 6.7
		33	RPS1H330MCN1GS	FP-050ME330M-PSR	330	0.12	32	1950	10 × 7.7
47		RPS1H470MCN1GS	FP-050ME470M-PSR	470	0.15	26	2300	8 × 11.7	
63	82	RPS1H820MCN1GS	FP-050ME820M-PSR	820	0.15	23	2800	10 × 12.4	
	8.2	RPS1J8R2MCN1GS	FP-063ME8R2M-PSR	103	0.12	41	1200	6.3 × 5.7	
	12	RPS1J120MCN1GS	FP-063ME120M-PSR	151	0.12	38	1500	8 × 6.7	
	22	RPS1J220MCN1GS	FP-063ME220M-PSR	277	0.12	33	1900	10 × 7.7	
	33	RPS1J330MCN1GS	FP-063ME330M-PSR	416	0.15	27	2250	8 × 11.7	
	56	RPS1J560MCN1GS	FP-063ME560M-PSR	706	0.15	24	2700	10 × 12.4	

\* In case of some doubt about measured values, measure after applying rated voltage for 120 minutes at 105°C.

## ● Part Number (EX) 4V, 1200μF, PS series Nichicon P/N

