

# FPCAP Functional Polymer Aluminum Solid Electrolytic Capacitors

## PS & PA series

Low ESR	SMD
Lead-free	RoHS Compliance

Standard



### 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.

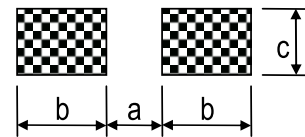
### Applications

- Switching Power Supply and DC/DC Converter.
- Buck 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%)

### 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

### Specifications

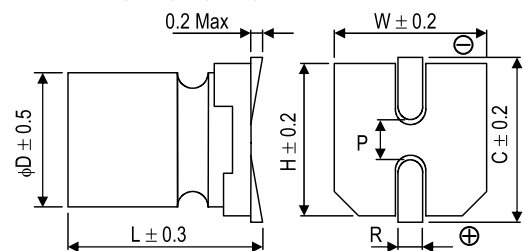
Items	Characteristic	
<b>PS &amp; PA</b>		
Operating temp. range	-55 to +105°C	
Rated voltage range	2.5 to 16V-dc	
Capacitance range	39 to 1500 $\mu$ F	
Capacitance tolerance	$\pm 20\%$ (M)	
Endurance	Test condition	105°C, rated voltage 2000Hrs.
	Capacitance	Within $\pm 20\%$ of initial value before 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 [phi D x L]

R.V. (S.V.) Cap. [ $\mu$ F]	2.5 (2.8)	4.0 (4.6)	6.3 (7.2)	10 (11.5)	16 (18.4)
39					6.3x5.7 (6.3x5.7)
47				6.3x5.7	
56				6.3x5.7	8x6.7
68					
82			6.3x5.7		8x6.7
100		6.3x5.7			10x7.7
120				8x6.7	
150			8x6.7		10x7.7
180			8x6.7		8x11.7
220		8x6.7			8x11.7
270				10x7.7	
330		8x6.7	10x7.7	8x11.7	10x12.4
470		10x7.7	8x11.7		
560		8x11.7 (8x11.7)	8x11.7	10x12.4	
680	8x11.7		10x12.4		
820			10x12.4		
1000			10x12.4		
1200		10x12.4			
1500	10x12.4				

### Dimensions



[Unit: mm]

$\phi D \times L$	W	H	C	R	P
6.3x5.7	6.5	6.5	7.2	0.5 to 0.9	2.1
8x6.7	8.3	8.3	9.0	0.8 to 1.1	3.2
8x11.7	8.3	8.3	9.0	0.8 to 1.1	3.2
10x7.7	10.3	10.3	11.0	0.8 to 1.1	4.6
10x12.4	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
	1200	RPS0G122MCN1GS	FP-4R0ME122M-PSR	960	0.12	12	5500	10 × 12.4
6.3	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
	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
10	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
	560	RPS1A561MCN1GS	FP-010ME561M-PSR	840	0.15	13	5300	10 × 12.4
16	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
	330	RPS1C331MCN1GS	FP-016ME331M-PSR	792	0.12	16	4800	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

<b>R</b>	<b>PS</b>	<b>0G</b>	<b>122</b>	<b>M</b>	<b>CN</b>	<b>1</b>	<b>GS</b>
Type	Series name	Rated Voltage	Rated Capacitance	Capacitance Tolerance	Configuration	Control code	Taping code