

# FPCAP Functional Polymer Aluminum Solid Electrolytic Capacitors

## FS 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.
- 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%)

### Specifications

Items	Characteristic	
	<b>FS</b>	
Operating temp. range	-55 to +105°C	
Rated voltage range	2.5 to 10V-dc	
Capacitance range	10 to 180μF	
Capacitance tolerance	±20% (M)	
Endurance	Test condition	105°C, rated voltage 2000Hrs.
	Capacitance	Within ±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 δ	Not to exceed 150% of initial specified value
Failure Rate	0.5% / 1000Hrs. Max (60%CL)	

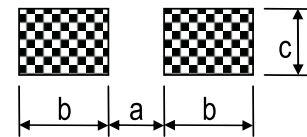
### Size List

		[φD×L]			
R.V. (S.V.) Cap. [μF]	M	2.5 (2.8)	4.0 (4.6)	6.3 (7.2)	10 (11.5)
10					4×5.2
47				5×5.7	
68					5×5.7
100			5×5.7	5×5.7	
120				5×5.7	
150			5×5.7		
180		5×5.7			

Large Capacitance	φ4 / φ5	Low ESR
SMD	Lead-free	RoHS Compliance



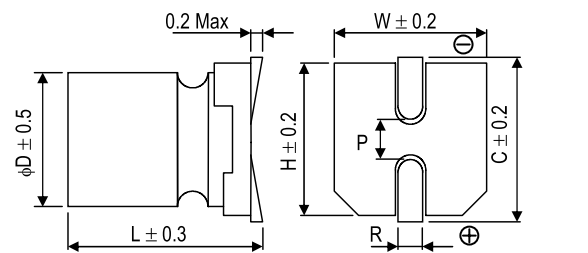
### Recommended land pattern



[Unit: mm]

φD	a	b	c
4	1.0	2.6	1.6
5	1.4	3.0	1.6

### Dimensions



[Unit: mm]

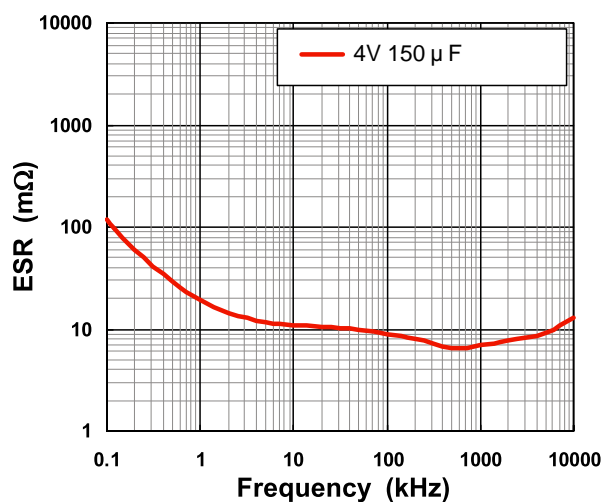
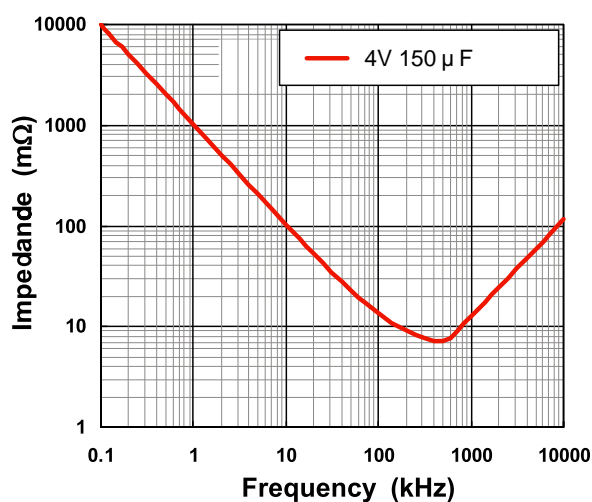
φD×L	W	H	C	R	P
4×5.2	4.3	4.3	5.1	0.5 to 0.9	1.0
5×5.7	5.3	5.3	5.9	0.5 to 0.9	1.4

## ● 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	180	RFS0E181MCN1GS	FP-2R5ME181M-FSR	300	0.12	21	2670	5 × 5.7
4.0	100	RFS0G101MCN1GS	FP-4R0ME101M-FSR	300	0.12	22	2610	5 × 5.7
	150	RFS0G151MCN1GS	FP-4R0ME151M-FSR	300	0.12	22	2610	5 × 5.7
6.3	47	RFS0J470MCN1GS	FP-6R3ME470M-FSR	300	0.12	30	2000	5 × 5.7
	100	RFS0J101MCN1GS	FP-6R3ME101M-FSR	300	0.12	24	2500	5 × 5.7
	120	RFS0J121MCN1GS	FP-6R3ME121M-FSR	300	0.12	24	2500	5 × 5.7
10	10	RFS1A100MCN1GB	FP-010ME100M-FSR	100	0.12	220	700	4 × 5.2
	68	RFS1A680MCN1GS	FP-010ME680M-FSR	300	0.12	30	2000	5 × 5.7

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

## ● Frequency Characteristics



## ● Part Number (EX) 2.5V, 180μF, FS series

<b>R</b>	<b>FS</b>	<b>0G</b>	<b>181</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
							Taping code: GB: Height under 5.2mm GS: Height over 5.5mm