FPCAP Functional Polymer Aluminum Solid Electrolytic Capacitors

FS series

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

●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

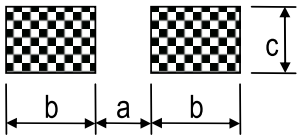
Any environmental hazardous substances are not used.

- The lead free of terminal plating (Sn 100%)

●Specifications

Items		Characteristic
		FS
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)

●Recommended land pattern



[Unit: mm]

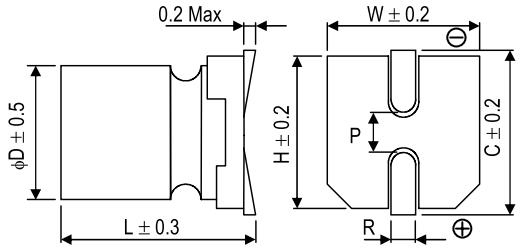
φD	a	b	c
4	1.0	2.6	1.6
5	1.4	3.0	1.6

●Size List

[φD×L]

R.V. (S.V.) [V] / Cap. [μF]	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			

●Dimensions



[Unit: mm]

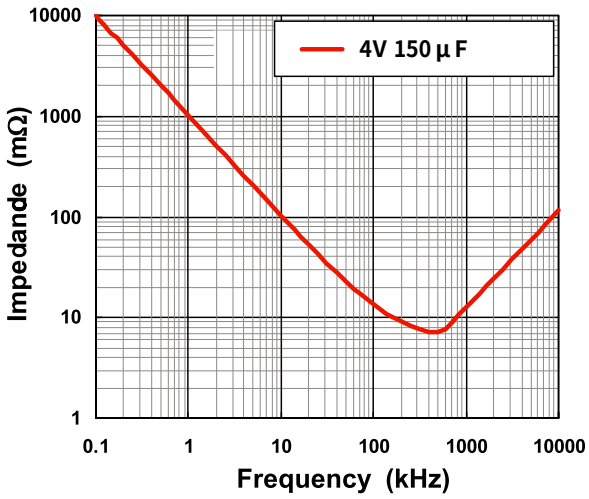
φD×L	W	H	C	R	P
4×5.2	4.3	4.3	5.1	0.5 to 0.9	1.0
5×5.7	5.3	5.3	5.9	0.5 to 0.9	1.4

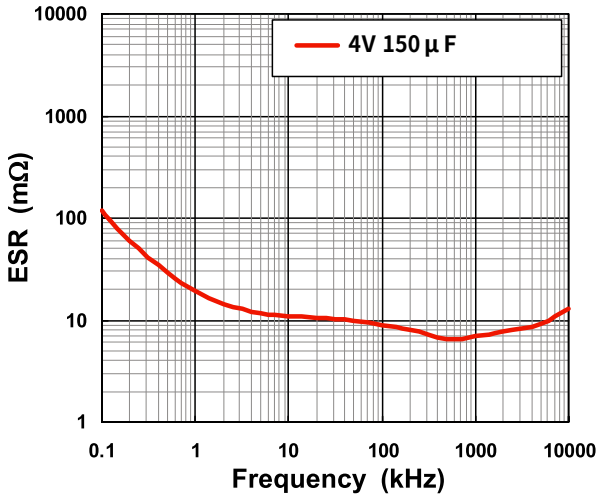
●Part number & Specifications

Rated Voltage (V)	Rated Capacitance (μF, 120Hz)	Part Number NICHICON	Part Number FPCAP	Leakage Current * (μA, 2 min)	tanδ (120Hz)	ESR (mΩ, 100kHz)	Rated Ripple Current (mA, r.m.s.)	Case Size φD×L(mm)
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

R	FS	0G	181	M	CN	1	GS
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