

# FPCAP Functional Polymer Aluminum Solid Electrolytic Capacitors

## FS & FA 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

Corresponding to Lead-free, RoHS compliance and Halogen-free.

- The Lead-free of terminal plating (Sn)

### Specifications

Items		Characteristic	
		FS, FA	
Operating temp. range		-55 to +105°C	
Rated voltage range		2.5 to 25V <sub>DC</sub>	
Capacitance range		10 to 330 $\mu$ 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 (ESR) List

[ $\phi$ D $\times$ L (m $\Omega$ )]

R.V. (S.V.) [V]	2.5 (2.8)		4.0 (4.6)	6.3 (7.2)	10 (11.5)	16 (18.4)	25 (28.7)
	FS	FA	FS	FS	FS	FS	FS
10					4 $\times$ 5.2 (220)		
22						5 $\times$ 5.7 (45)	5 $\times$ 5.7 (40)
33						5 $\times$ 5.7 (35)	
39						5 $\times$ 5.7 (35)	
47					5 $\times$ 5.7 (30)		
68					5 $\times$ 5.7 (30)		
100			5 $\times$ 5.7 (22)	5 $\times$ 5.7 (24)			
120				5 $\times$ 5.7 (24)			
150			5 $\times$ 5.7 (22)				
180	5 $\times$ 5.7 (21)						
330		5 $\times$ 5.7 (10)					

Large Capacitance

$\phi$ 4,  $\phi$ 5

Low ESR

SMD

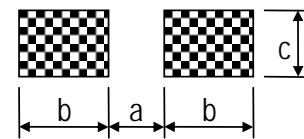
Lead-free

RoHS Compliance

# NEW



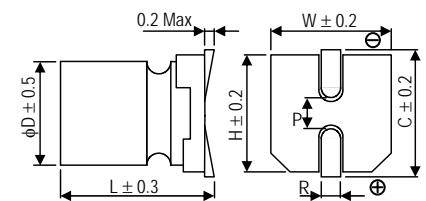
### Recommended land pattern



[Unit: mm]

$\phi$ D	a	b	c
4	1.0	2.6	1.6
5	1.4	3.0	1.6

### Dimensions



[Unit: mm]

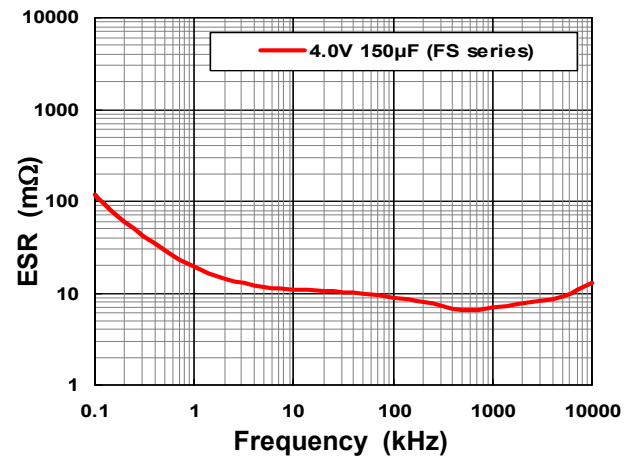
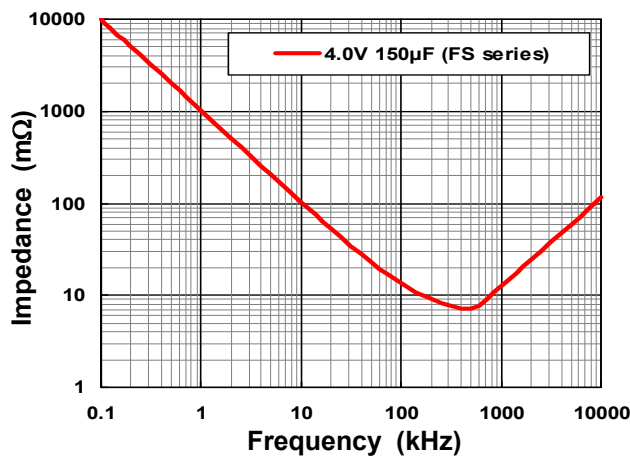
$\phi$ D $\times$ L	W	H	C	R	P
4 $\times$ 5.2	4.3	4.3	5.1	0.5 to 0.9	1.0
5 $\times$ 5.7	5.3	5.3	5.9	0.5 to 0.9	1.4

● 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
	330	RFA0E331MCN1GS	FP-2R5ME331M-FAR	500	0.12	10	3300	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
16	22	RFS1C220MCN1GS	FP-016ME220M-FSR	100	0.12	45	1210	5 × 5.7
	33	RFS1C330MCN1GS	FP-016ME330M-FSR	105	0.12	35	2070	5 × 5.7
	39	RFS1C390MCN1GS	FP-016ME390M-FSR	125	0.12	35	2070	5 × 5.7
25	22	RFS1E220MCN1GS	FP-025ME220M-FSR	300	0.12	40	2200	5 × 5.7

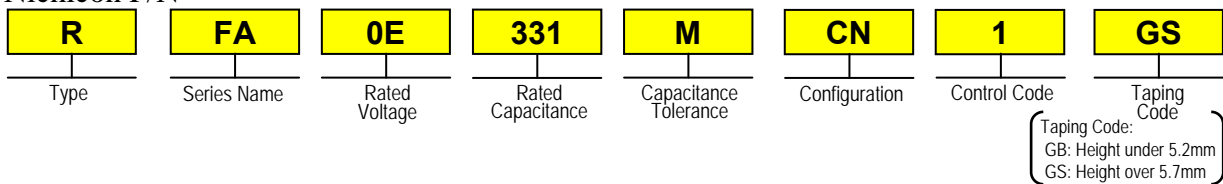
\* In case of some doubt about measured values, measure after applying rated voltage for 120 minutes at 105°C.

● Frequency Characteristics



● Part Number (EX) 2.5V, 330μF, FA series

Nichicon P/N



FPCAP P/N

