RFS/RFA High Capacitance (φ4, φ5)

For SMD | Smaller | High Ripple Current | Low Impedance | For High Frequency

- Low ESR, High Capacitance, High ripple current.
- Load life of 2000 hours at 105°C.
- SMD type : Lead free reflow soldering condition at 260°C peak correspondence.
- Compliant to the RoHS directive (2011/65/EU,(EU)2015/863).

RFS → Lower ESR → RFA

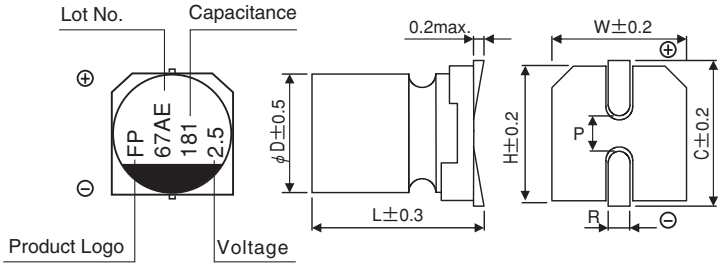
FPCAP

■ Specifications

Item	Performance Characteristics	
Category Temperature Range	–55 to +105°C	
Rated Voltage Range	2.5 to 25V	
Rated Capacitance Range	10 to 330μF	
Capacitance Tolerance	±20% at 120Hz, 20°C	
Tangent of loss angle (tan δ)	Less than or equal to the specified value at 120Hz, 20°C	
ESR (※1)	Less than or equal to the specified value at 100kHz, 20°C	
Leakage Current (※2)	Less than or equal to the specified value. After 2 minutes' application of rated voltage at 20°C	
Endurance	Test condition	105°C, rated voltage 2000Hrs.
	Capacitance change	Within ±20% of initial value before test
	tan δ	150% or less than the initial specified value
	ESR(※1)	150% or less than the initial specified value
	Leakage current (※2)	Less than or equal to the initial specified value

※1 ESR should be measured at both of the terminal ends closest where the terminals protrude through the plastic platform.
※2 Conditioning : If any doubt arises, measure the leakage current after the voltage treatment of applying DC rated voltage continuously to the capacitor for 120 minutes at 105°C.

■ Dimensions



(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

Type numbering system (Example : 2.5V 180μF)
Nichicon part number

1	2	3	4	5	6	7	8	9	10	11	12	13	14
R	F	S	0	E	1	8	1	M	C	N	1	G	S

- 1 2 : Type
- 3 : Series name
- 4 : Rated voltage (2.5V)
- 5 6 7 : Rated capacitance (180μF)
- 8 : Capacitance tolerance (±20%)
- 9 10 : Configuration
- 11 : Control code
- 12 13 14 : Taping code

FPCAP part number

FP - 2R5 ME 181 M - FS R

- FP : Type
- 2R5 : Voltage(2.5V)
- ME : Configuration
- 181 : Capacitance (180μF)
- M : Capacitance tolerance (±20%)
- FS : Series name
- R : Taping code
- Control code

● Frequency coefficient of rated ripple current

Frequency	120 Hz	1 kHz	10 kHz	100 kHz	300 kHz
Coefficient	0.10	0.45	0.50	1.00	1.00

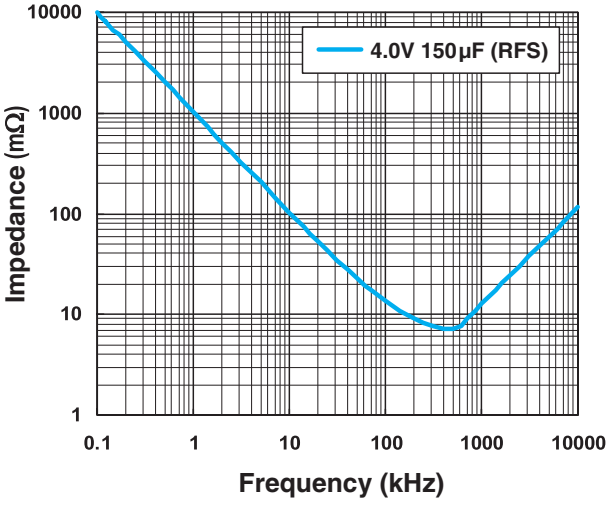
● Dimension table in next page.

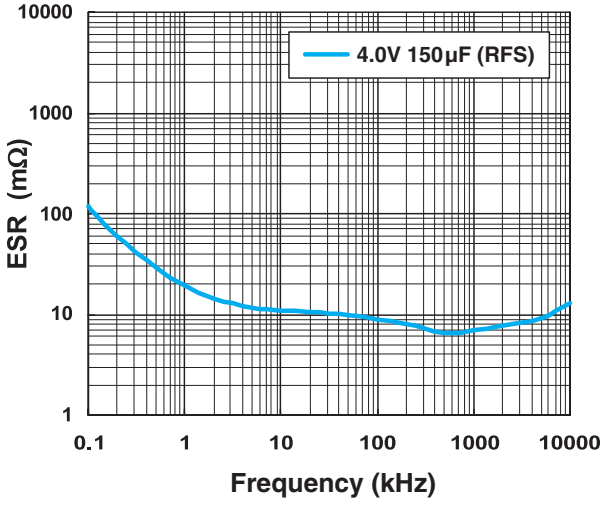
RFS / RFA

■ Dimensions

Rated Voltage (V) (code)	Surge Voltage (V)	Rated Capacitance (μF)	Case Size φD×L (mm)	tan δ	Leakage Current (μA) (at 20℃ after 2 minutes)	ESR (mΩ) (20℃/100kHz)	Rated Ripple Current (mArms) (105℃/100kHz)	NICHICON	FPCAP
2.5 (0E)	2.8	180	5×5.7	0.12	300	21	2670	RFS0E181MCN1GS	FP-2R5ME181M-FSR
		330	5×5.7	0.12	500	10	3300	RFA0E331MCN1GS	FP-2R5ME331M-FAR
4.0 (0G)	4.6	100	5×5.7	0.12	300	22	2610	RFS0G101MCN1GS	FP-4R0ME101M-FSR
		150	5×5.7	0.12	300	22	2610	RFS0G151MCN1GS	FP-4R0ME151M-FSR
6.3 (0J)	7.2	47	5×5.7	0.12	300	30	2000	RFS0J470MCN1GS	FP-6R3ME470M-FSR
		100	5×5.7	0.12	300	24	2500	RFS0J101MCN1GS	FP-6R3ME101M-FSR
		120	5×5.7	0.12	300	24	2500	RFS0J121MCN1GS	FP-6R3ME121M-FSR
		180	5×5.7	0.12	567	17	3390	RFA0J181MCN1GS	FP-6R3ME181M-FAR
10 (1A)	11.5	10	4×5.2	0.12	100	220	700	RFS1A100MCN1GB	FP-010ME100M-FSR
		68	5×5.7	0.12	300	30	2000	RFS1A680MCN1GS	FP-010ME680M-FSR
16 (1C)	18.4	22	5×5.7	0.12	100	45	1210	RFS1C220MCN1GS	FP-016ME220M-FSR
		33	5×5.7	0.12	105	35	2070	RFS1C330MCN1GS	FP-016ME330M-FSR
		39	5×5.7	0.12	124	35	2070	RFS1C390MCN1GS	FP-016ME390M-FSR
		100	5×5.7	0.12	320	27	3000	RFS1C101MCN1GS	FP-016ME101M-FSR
25 (1E)	28.7	22	5×5.7	0.12	300	40	2200	RFS1E220MCN1GS	FP-025ME220M-FSR
		27	5×5.7	0.12	135	40	2450	RFS1E270MCN1GS	FP-025ME270M-FSR

■ Frequency Characteristics (The frequency characteristics are typical and not a guaranteed value.)





• For taping specifications, recommended land size/soldering by reflow and minimum order quantity, please refer to the Guidelines for Aluminum Electrolytic Capacitors.