FPCAP Functional Polymer Aluminum Solid Electrolytic Capacitors

NS series

Low ESR

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.
- 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

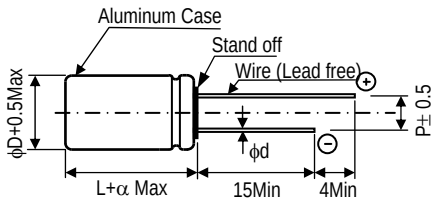
Items		Characteristics
		NS
Operating Temp. Range		-55 to +105°C
Rated Voltage Range		4.0 to 25V·DC
Capacitance Range		10 to 1200μF
Capacitance Tolerance		±20% (M)
Endurance	Condition	105°C 2000Hrs at rated voltage
	Capacitance	Within ±20% of the value before test
	Leakage Current	Not to exceed the value specified
	tan δ	Not to exceed 150% of the value specified
Failure Rate		0.1% / 1000Hrs. Max (60%CL)

●Size List

[φD×L]

Cap. [μF] \ R.V (S.V.) [V]	4.0 (4.6)	6.3 (7.2)	10 (11.5)	16 (18.4)	20 (23)	25 (28.7)
10						6.3×7
15					6.3×7	6.3×10
22				6.3×7	6.3×7	8×11.5
33			6.3×7	6.3×7	6.3×10	10×12.5
47		6.3×7		6.3×10	8×11.5	10×12.5
68			6.3×10	8×11.5	8×11.5	
100			8×11.5	8×11.5	10×12.5	10×12.5
150		8×11.5		10×12.5		
180				8×11.5		
220		8×11.5	10×12.5			
330		10×12.5		10×12.5		
390		8×11.5				
470			10×12.5			
560	8×11.5					
680		10×12.5				
820	10×12.5	10×12.5				
1000		10×12.5				
1200	10×12.5					

●Dimensions



[Unit : mm]

φD×L	φd	P	α
6.3×7	0.45	2.5	1.0
6.3×10	0.5	2.5	1.0
8×11.5	0.6	3.5	1.5
10×12.5	0.6	5.0	1.5

●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					
4.0	560	RNS0G561MDN1□□	FP-4R0RE561M-NS□□	336	0.08	10	5230	8 × 11.5
	820	RNS0G821MDN1□□	FP-4R0RE821M-NS□□	492	0.08	10	5500	10 × 12.5
	1200	RNS0G122MDN1□□	FP-4R0RE122M-NS□□	720	0.15	10	5500	10 × 12.5
6.3	47	RNS0J470MDS1□□	FP-6R3RE470M-NS□□	50	0.07	42	2050	6.3 × 7
	150	RNS0J151MDN1□□	FP-6R3RE151M-NS□□	142	0.07	21	3900	8 × 11.5
	220	RNS0J221MDN1□□	FP-6R3RE221M-NS□□	208	0.07	21	3900	8 × 11.5
	330	RNS0J331MDN1□□	FP-6R3RE331M-NS□□	312	0.07	10	5500	10 × 12.5
	390	RNS0J391MDN1□□	FP-6R3RE391M-NS□□	369	0.08	10	5230	8 × 11.5
	680	RNS0J681MDN1□□	FP-6R3RE681M-NS□□	643	0.08	10	5500	10 × 12.5
	820	RNS0J821MDN1□□	FP-6R3RE821M-NS□□	775	0.12	10	5500	10 × 12.5
	1000	RNS0J102MDN1□□	FP-6R3RE102M-NS□□	945	0.12	10	5500	10 × 12.5
10	33	RNS1A330MDS1□□	FP-010RE330M-NS□□	50	0.07	49	1900	6.3 × 7
	68	RNS1A680MDS1□□	FP-010RE680M-NS□□	102	0.07	35	2650	6.3 × 10
	100	RNS1A101MDN1□□	FP-010RE101M-NS□□	150	0.07	21	3900	8 × 11.5
	220	RNS1A221MDN1□□	FP-010RE221M-NS□□	330	0.07	10	5500	10 × 12.5
	470	RNS1A471MDN1□□	FP-010RE471M-NS□□	705	0.08	10	5500	10 × 12.5
16	22	RNS1C220MDS1□□	FP-016RE220M-NS□□	53	0.06	49	1900	6.3 × 7
	33	RNS1C330MDS1□□	FP-016RE330M-NS□□	79	0.06	49	1900	6.3 × 7
	47	RNS1C470MDS1□□	FP-016RE470M-NS□□	113	0.06	42	2400	6.3 × 10
	68	RNS1C680MDN1□□	FP-016RE680M-NS□□	163	0.06	25	3600	8 × 11.5
	100	RNS1C101MDN1□□	FP-016RE101M-NS□□	240	0.06	21	3900	8 × 11.5
	150	RNS1C151MDN1□□	FP-016RE151M-NS□□	360	0.06	10	5500	10 × 12.5
	180	RNS1C181MDN1□□	FP-016RE181M-NS□□	432	0.08	16	4700	8 × 11.5
	330	RNS1C331MDN1□□	FP-016RE331M-NS□□	792	0.08	10	5500	10 × 12.5
20	15	RNS1D150MDS1□□	FP-020RE150M-NS□□	50	0.06	63	1700	6.3 × 7
	22	RNS1D220MDS1□□	FP-020RE220M-NS□□	66	0.06	49	1900	6.3 × 7
	33	RNS1D330MDS1□□	FP-020RE330M-NS□□	99	0.06	49	2200	6.3 × 10
	47	RNS1D470MDN1□□	FP-020RE470M-NS□□	141	0.06	28	3400	8 × 11.5
	68	RNS1D680MDN1□□	FP-020RE680M-NS□□	204	0.06	25	3600	8 × 11.5
	100	RNS1D101MDN1□□	FP-020RE101M-NS□□	300	0.06	15	4500	10 × 12.5
25	10	RNS1E100MDS1□□	FP-025RE100M-NS□□	50	0.06	63	1700	6.3 × 7
	15	RNS1E150MDS1□□	FP-025RE150M-NS□□	75	0.06	49	2200	6.3 × 10
	22	RNS1E220MDN1□□	FP-025RE220M-NS□□	110	0.06	28	3400	8 × 11.5
	33	RNS1E330MDN1□□	FP-025RE330M-NS□□	165	0.06	20	3800	10 × 12.5
	47	RNS1E470MDN1□□	FP-025RE470M-NS□□	235	0.06	20	3800	10 × 12.5
	100	RNS1E101MDN1□□	FP-025RE101M-NS□□	500	0.08	15	4500	10 × 12.5

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

●Part Number (EX) 16V, 100μF

Nichicon P/N

R	NS	1C	101	M	DN	1	
Type	Series Name	Rated Voltage	Rated Capacitance	Capacitance Tolerance	Configuration	Control Code	Lead Forming

Lead Forming:
CG: Cut lead (Bulk)
JX: φ6.3x10 2.5mm pitch taping
JT: φ6.3x7, 2.5mm pitch taping
KX: φ8, 3.5mm pitch taping
PX: φ6.3&φ8, 5.0mm pitch taping
PH: φ10, 5.0mm pitch taping

FPCAP P/N

FP	—	016	RE	101	M	—	NS	R	
Commodity Mark		Rated Voltage	Classification	Rated Capacitance	Capacitance Tolerance		Series Name	Lead Forming	Control Code

Lead Forming:
R: Long lead (Bulk)
CG: Cut lead (Bulk)
J : φ6.3x10, 2.5mm pitch taping
JT: φ6.3x7, 2.5mm pitch taping
K : φ8, 3.5mm pitch taping
P : φ6.3&φ8, 5.0mm pitch taping
PH: φ10, 5.0mm pitch taping

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Nichicon:

RNS0J821MDN1PH RNS1C470MDS1JX RNS1E220MDN1PX RNS1E150MDS1PX RNS1D470MDN1PX RNS1C101MDN1PX RNS1C470MDS1PX RNS0G561MDN1PX RNS0J221MDN1PX RNS0J151MDN1PX RNS1A680MDS1PX RNS1C680MDN1PX RNS1D680MDN1PX RNS0J391MDN1PX RNS1A101MDN1PX RNS1C181MDN1PX RNS1D330MDS1PX