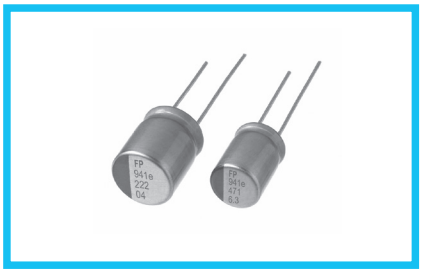
RNU

High Capacitance

HR High Ripple Current | Z Low Impedance | F For High Frequency | L Long Life | Anti-Solvent Feature

FPCAP Expanded



- Low ESR, High Capacitance, High ripple current.
- Load life of 2000/5000 hours at 105°C.
- Radial lead type : Lead free flow soldering condition correspondence.
- Compliant to the RoHS directive (2011/65/EU,(EU)2015/863).

RNS Higher Capacitance RNU Higher Capacitance RNE

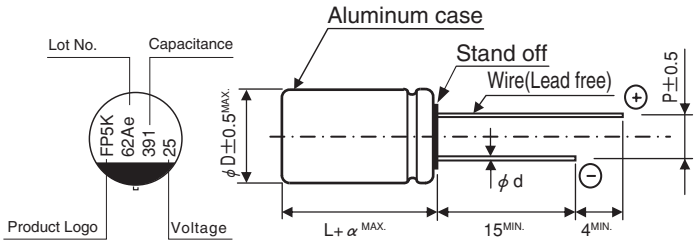
■ Specifications

Item	Performance Characteristics	
Category Temperature Range	–55 to +105°C	
Rated Voltage Range	2.5 to 63V	
Rated Capacitance Range	10 to 2700µF	
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 2000 / 5000Hrs.
	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

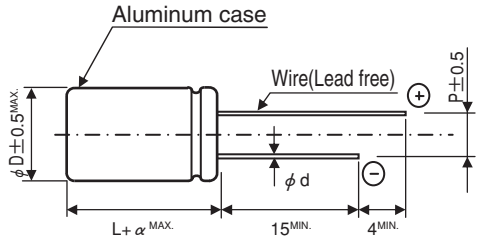
※1 ESR should be measured at both of the terminal ends closest to the capacitor body.
※2 Conditioning : If any doubt arises, measure the leakage current after the voltage treatment of applying DC rated voltage continuously to the capacitor for 120 minutes at 105°C.

■ Dimensions

[φ4×5 / φ6.3×10 / φ8×11.5 / φ10×12.5]



[φ4×5 / φ6.3×10 / φ8×11.5(-H or -5KH)]



(mm)

φD×L	φd	P	α
4×5	0.45	1.5	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

Type numbering system (Example : 25V 390µF)

Nichicon part number

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
R	N	U	1	E	3	9	1	M	D	N	A	S	Q	C	G

16 Lead Forming
15 Control code
14 Configuration
13 Capacitance tolerance (±20%)
12 Rated capacitance (390µF)
11 Rated voltage (25V)
10 Series name
9 Type

FPCAP part number

FP - 025 - RE - 391 - M - NU - CG - 5K

5K Control code
CG Lead Forming
NU Series name
M Capacitance tolerance (±20%)
391 Capacitance (390µF)
RE Configuration
025 Voltage(25V)
FP Type

● 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.

RNU

■ Dimensions

Rated Voltage (V) (code)	Surge Voltage (V)	Rated Capacitance (μF)	Case Size φD×L (mm)	tan δ	Leakage Current (μA, 2min.)	ESR (mΩ) (20°C/100kHz)	Rated Ripple Current (mArms) (105°C/100kHz)	NICHICON	FPCAP
2.5 (0E)	2.8	1500	8×11.5	0.08	938	7	4700	RNU0E152MDN1□□	FP-2R5RE152M-NU□□
		1500	8×11.5	0.08	938	7	4700	RNU0E152MCN1□□	FP-2R5RE152M-NU□□-H
		2700	10×12.5	0.08	1350	7	6100	RNU0E272MDN1□□	FP-2R5RE272M-NU□□
4.0 (0G)	4.6	820	8×11.5	0.08	656	7	5700	RNU0G821MDN1□□	FP-4R0RE821M-NU□□
		820	8×11.5	0.08	656	7	5700	RNU0G821MCN1□□	FP-4R0RE821M-NU□□-H
		1000	8×11.5	0.08	800	7	5700	RNU0G102MDN1□□	FP-4R0RE102M-NU□□
		1000	8×11.5	0.08	800	7	5700	RNU0G102MCN1□□	FP-4R0RE102M-NU□□-H
		1200	8×11.5	0.08	960	7	5700	RNU0G122MDN1□□	FP-4R0RE122M-NU□□
		1200	8×11.5	0.08	960	7	5700	RNU0G122MCN1□□	FP-4R0RE122M-NU□□-H
		1800	10×12.5	0.08	1440	7	6100	RNU0G182MDN1□□	FP-4R0RE182M-NU□□
		2200	10×12.5	0.08	1760	7	6100	RNU0G222MDN1□□	FP-4R0RE222M-NU□□
6.3 (0J)	7.2	220	6.3×10	0.08	277	20	3200	RNU0J221MDN1□□	FP-6R3RE221M-NU□□
		220	6.3×10	0.08	277	20	3200	RNU0J221MCN1□□	FP-6R3RE221M-NU□□-H
		470	8×11.5	0.08	592	7	5700	RNU0J471MDN1□□	FP-6R3RE471M-NU□□
		470	8×11.5	0.08	592	7	5700	RNU0J471MCN1□□	FP-6R3RE471M-NU□□-H
		680	8×11.5	0.08	857	7	5700	RNU0J681MDN1□□	FP-6R3RE681M-NU□□
		680	8×11.5	0.08	857	7	5700	RNU0J681MCN1□□	FP-6R3RE681M-NU□□-H
		820	8×11.5	0.08	1033	7	5700	RNU0J821MDN1□□	FP-6R3RE821M-NU□□
		820	8×11.5	0.08	1033	7	5700	RNU0J821MCN1□□	FP-6R3RE821M-NU□□-H
		1000	8×11.5	0.08	1260	7	5700	RNU0J102MDN1□□	FP-6R3RE102M-NU□□
		1000	8×11.5	0.08	1260	7	5700	RNU0J102MCN1□□	FP-6R3RE102M-NU□□-H
		1200	8×11.5	0.08	1512	9	6100	RNU0J122MDN1□□	FP-6R3RE122M-NU□□
		1200	8×11.5	0.08	1512	9	6100	RNU0J122MCN1□□	FP-6R3RE122M-NU□□-H
		1500	10×12.5	0.08	1890	7	6100	RNU0J152MDN1□□	FP-6R3RE152M-NU□□
10 (1A)	11.5	10	4×5	0.12	300	220	700	RNU1A100MDN1□□	FP-010RE100M-NU□□
		10	4×5	0.12	300	220	700	RNU1A100MCN1□□	FP-010RE100M-NU□□-H
		＊10	4×5	0.12	300	220	700	RNU1A100MDNASQ□□	FP-010RE100M-NU□□-5K
		＊10	4×5	0.12	300	220	700	RNU1A100MCNASQ□□	FP-010RE100M-NU□□-5KH
		820	8×11.5	0.08	1640	10	5800	RNU1A821MDN1□□	FP-010RE821M-NU□□
		820	8×11.5	0.08	1640	10	5800	RNU1A821MCN1□□	FP-010RE821M-NU□□-H
		＊820	8×11.5	0.08	1640	10	5800	RNU1A821MDNASQ□□	FP-010RE821M-NU□□-5K
		＊820	8×11.5	0.08	1640	10	5800	RNU1A821MCNASQ□□	FP-010RE821M-NU□□-5KH
		1200	10×12.5	0.08	2400	9	6200	RNU1A122MDN1□□	FP-010RE122M-NU□□
16 (1C)	18.4	100	6.3×10	0.08	320	25	2820	RNU1C101MDN1□□	FP-016RE101M-NU□□
		100	6.3×10	0.08	320	25	2820	RNU1C101MCN1□□	FP-016RE101M-NU□□-H
		＊100	6.3×10	0.08	320	25	2820	RNU1C101MDNASQ□□	FP-016RE101M-NU□□-5K
		＊100	6.3×10	0.08	320	25	2820	RNU1C101MCNASQ□□	FP-016RE101M-NU□□-5KH
		180	8×11.5	0.08	576	8	5700	RNU1C181MDN1□□	FP-016RE181M-NU□□
		180	8×11.5	0.08	576	8	5700	RNU1C181MCN1□□	FP-016RE181M-NU□□-H
		270	8×11.5	0.08	864	8	5000	RNU1C271MDN1□□	FP-016RE271M-NU□□
		270	8×11.5	0.08	864	8	5000	RNU1C271MCN1□□	FP-016RE271M-NU□□-H
		＊270	8×11.5	0.08	864	8	5000	RNU1C271MDNASQ□□	FP-016RE271M-NU□□-5K
		＊270	8×11.5	0.08	864	8	5000	RNU1C271MCNASQ□□	FP-016RE271M-NU□□-5KH
		330	8×11.5	0.08	1056	8	6100	RNU1C331MDN1□□	FP-016RE331M-NU□□
		330	8×11.5	0.08	1056	8	6100	RNU1C331MCN1□□	FP-016RE331M-NU□□-H
		470	10×12.5	0.08	1504	10	6100	RNU1C471MDN1□□	FP-016RE471M-NU□□
		＊470	10×12.5	0.08	1504	10	6100	RNU1C471MDNASQ□□	FP-016RE471M-NU□□-5K
		680	10×12.5	0.08	2176	10	6100	RNU1C681MDN1□□	FP-016RE681M-NU□□
20 (1D)	23	390	8×11.5	0.12	1560	14	4970	RNU1D391MDN1□□	FP-020RE391M-NU□□
		390	8×11.5	0.12	1560	14	4970	RNU1D391MCN1□□	FP-020RE391M-NU□□-H
		＊390	8×11.5	0.12	1560	14	4970	RNU1D391MDNASQ□□	FP-020RE391M-NU□□-5K
		＊390	8×11.5	0.12	1560	14	4970	RNU1D391MCNASQ□□	FP-020RE391M-NU□□-5KH
		680	10×12.5	0.12	2720	12	5400	RNU1D681MDN1□□	FP-020RE681M-NU□□

＊: Load life 5000hours.

- Taping specifications are given in page 26, 27.
- Please refer to page 3 for the minimum order quantity.

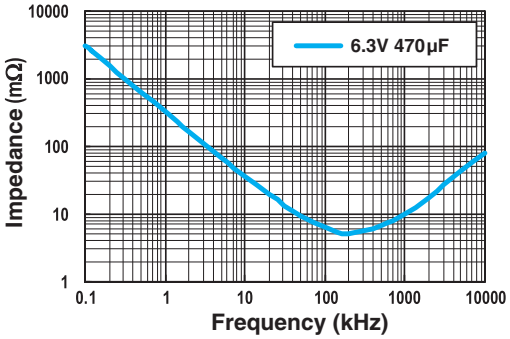
RNU

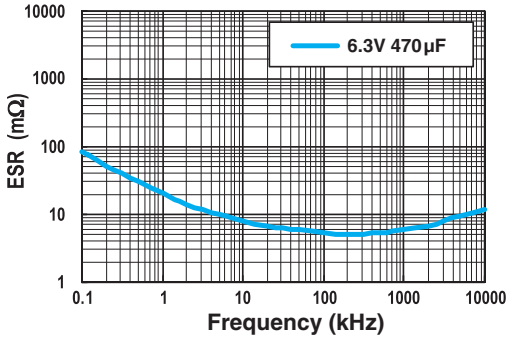
■ Dimensions

Rated Voltage (V) (code)	Surge Voltage (V)	Rated Capacitance (μF)	Case Size φD×L (mm)	tan δ	Leakage Current (μA, 2min.)	ESR (mΩ) (20°C/100kHz)	Rated Ripple Current (mArms) (105°C/100kHz)	NICHICON	FPCAP
25 (1E)	28.7	33	8×11.5	0.12	413	24	3600	RNU1E330MDN1□□	FP-025RE330M-NU□□
		33	8×11.5	0.12	413	24	3600	RNU1E330MCN1□□	FP-025RE330M-NU□□-H
		47	8×11.5	0.12	588	24	3600	RNU1E470MDN1□□	FP-025RE470M-NU□□
		47	8×11.5	0.12	588	24	3600	RNU1E470MCN1□□	FP-025RE470M-NU□□-H
		68	8×11.5	0.12	850	24	3600	RNU1E680MDN1□□	FP-025RE680M-NU□□
		68	8×11.5	0.12	850	24	3600	RNU1E680MCN1□□	FP-025RE680M-NU□□-H
		180	8×11.5	0.12	900	16	4650	RNU1E181MDN1□□	FP-025RE181M-NU□□
		180	8×11.5	0.12	900	16	4650	RNU1E181MCN1□□	FP-025RE181M-NU□□-H
		220	8×11.5	0.12	1100	16	4650	RNU1E221MDN1□□	FP-025RE221M-NU□□
		220	8×11.5	0.12	1100	16	4650	RNU1E221MCN1□□	FP-025RE221M-NU□□-H
		∗220	8×11.5	0.12	1100	16	4650	RNU1E221MDNASQ□□	FP-025RE221M-NU□□-5K
		∗220	8×11.5	0.12	1100	16	4650	RNU1E221MCNASQ□□	FP-025RE221M-NU□□-5KH
		330	10×12.5	0.12	1650	14	5000	RNU1E331MDN1□□	FP-025RE331M-NU□□
		∗330	10×12.5	0.12	1650	14	5000	RNU1E331MDNASQ□□	FP-025RE331M-NU□□-5K
		390	10×12.5	0.12	1950	14	5000	RNU1E391MDN1□□	FP-025RE391M-NU□□
		∗390	10×12.5	0.12	1950	14	5000	RNU1E391MDNASQ□□	FP-025RE391M-NU□□-5K
35 (1V)	40.2	47	8×11.5	0.12	329	24	3600	RNU1V470MDN1□□	FP-035RE470M-NU□□
		47	8×11.5	0.12	329	24	3600	RNU1V470MCN1□□	FP-035RE470M-NU□□-H
		∗82	8×11.5	0.12	574	20	4000	RNU1V820MDNASQ□□	FP-035RE820M-NU□□-5K
		∗82	8×11.5	0.12	574	20	4000	RNU1V820MCNASQ□□	FP-035RE820M-NU□□-5KH
		∗120	10×12.5	0.12	840	18	4400	RNU1V121MDNASQ□□	FP-035RE121M-NU□□-5K
		150	10×12.5	0.12	1050	20	3800	RNU1V151MDN1□□	FP-035RE151M-NU□□
50 (1H)	57.5	39	8×11.5	0.12	390	20	2400	RNU1H390MDN1□□	FP-050RE390M-NU□□
		39	8×11.5	0.12	390	20	2400	RNU1H390MCN1□□	FP-050RE390M-NU□□-H
		47	10×12.5	0.12	470	24	2700	RNU1H470MDN1□□	FP-050RE470M-NU□□
		68	10×12.5	0.12	680	24	2700	RNU1H680MDN1□□	FP-050RE680M-NU□□
63 (1J)	72.5	33	8×11.5	0.12	416	26	2300	RNU1J330MDN1□□	FP-063RE330M-NU□□
		33	8×11.5	0.12	416	26	2300	RNU1J330MCN1□□	FP-063RE330M-NU□□-H
		39	10×12.5	0.12	492	25	2600	RNU1J390MDN1□□	FP-063RE390M-NU□□
		47	10×12.5	0.12	592	25	2600	RNU1J470MDN1□□	FP-063RE470M-NU□□
		56	10×12.5	0.12	706	25	2600	RNU1J560MDN1□□	FP-063RE560M-NU□□

∗ : Load life 5000hours.

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





- Taping specifications are given in page 26, 27.
- Please refer to page 3 for the minimum order quantity.