RR5 Ultra-low ESR

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

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

RR7 → (Lower ESR) RR5 → (Lower Profile) RE5

FPCAP

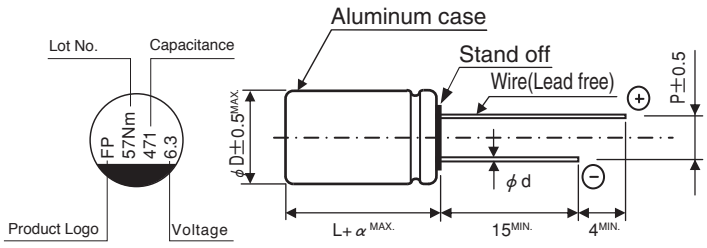


■ Specifications

Item	Performance Characteristics	
Category Temperature Range	–55 to +105°C	
Rated Voltage Range	2.5 to 6.3V	
Rated Capacitance Range	390 to 1500µF	
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 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



(mm)

φD×L	φd	P	α
8×11.5	0.6	3.5	1.5
10×12.5	0.6	5.0	1.5

Type numbering system (Example : 6.3V 470µF)
Nichicon part number

1	2	3	4	5	6	7	8	9	10	11	12	13	14
R	R	5	0	J	4	7	1	M	D	N	1	K	X

14 Lead Forming
13 Control code
12 Configuration
11 Capacitance tolerance (±20%)
10 Rated capacitance (470µF)
9 Rated voltage (6.3V)
8 Series name
7 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

FPCAP part number

FP	6R3	RE	471	M	R5	K	

Control code
Lead Forming
Series name
Capacitance tolerance (±20%)
Capacitance (470µF)
Configuration
Voltage(6.3V)
Type

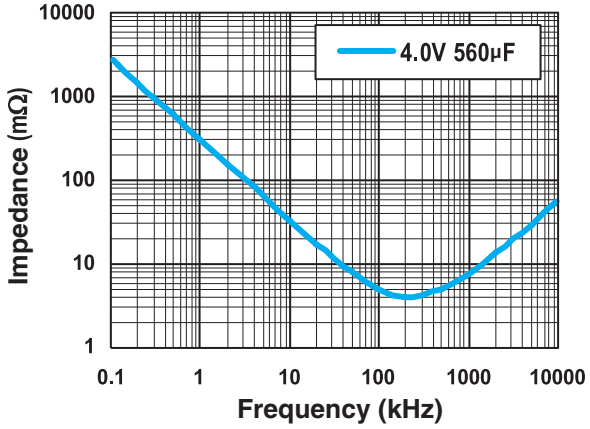
● Dimension table in next page.

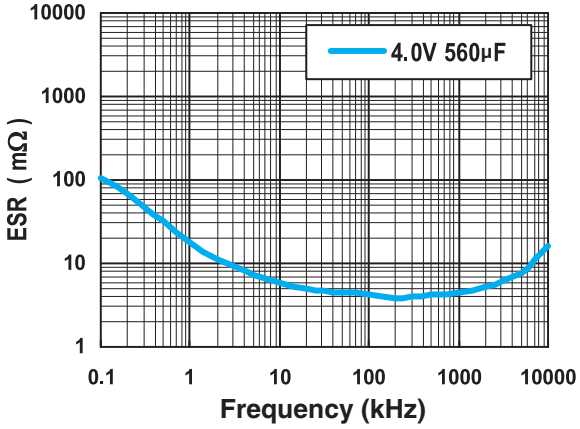
RR5

■ 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	560	8×11.5	0.15	350	5	6630	RR50E561MDN1□□	FP-2R5RE561M-R5□□
		680	8×11.5	0.15	425	5	6630	RR50E681MDN1□□	FP-2R5RE681M-R5□□
		820	8×11.5	0.15	513	5	6630	RR50E821MDN1□□	FP-2R5RE821M-R5□□
		1000	8×11.5	0.15	625	5	6630	RR50E102MDN1□□	FP-2R5RE102M-R5□□
		1500	10×12.5	0.15	938	5	7220	RR50E152MDN1□□	FP-2R5RE152M-R5□□
4.0 (0G)	4.6	560	8×11.5	0.15	560	5	6630	RR50G561MDN1□□	FP-4R0RE561M-R5□□
		820	10×12.5	0.15	820	5	7220	RR50G821MDN1□□	FP-4R0RE821M-R5□□
		1200	10×12.5	0.15	1200	5	7220	RR50G122MDN1□□	FP-4R0RE122M-R5□□
6.3 (0J)	7.2	390	8×11.5	0.15	614	5	6630	RR50J391MDN1□□	FP-6R3RE391M-R5□□
		470	8×11.5	0.15	592	5	6630	RR50J471MDN1□□	FP-6R3RE471M-R5□□
		680	10×12.5	0.15	1071	5	7220	RR50J681MDN1□□	FP-6R3RE681M-R5□□
		820	10×12.5	0.15	1292	5	7220	RR50J821MDN1□□	FP-6R3RE821M-R5□□

■ 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.