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RHS / RHA

High Capacitance (φ8)

For SMD | High Ripple Current | Low Impedance | For High Frequency | Anti-Solvent Feature

FPCAP Expanded



- Low ESR, High Capacitance, High ripple current.
- Load life of 2000 / 5000 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).

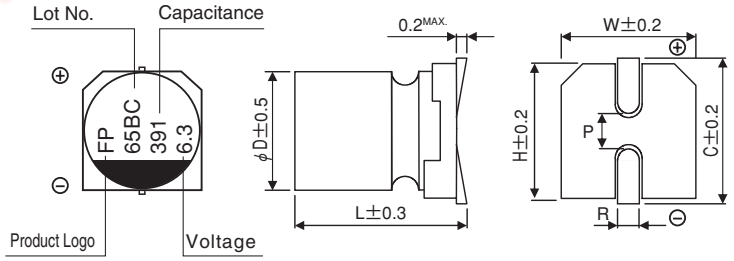
RHS → Lower ESR → RHA

■ Specifications

Item	Performance Characteristics	
Category Temperature Range	–55 to +105°C	
Rated Voltage Range	2.5 to 35V	
Rated Capacitance Range	56 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 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 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
8×6.7	8.3	8.3	9.0	0.8 to 1.1	3.2
8×7.7	8.3	8.3	9.0	0.8 to 1.1	3.2
8×8.7	8.3	8.3	9.0	0.8 to 1.1	3.2
8×11.7	8.3	8.3	9.0	0.8 to 1.1	3.2

Type numbering system (Example : 6.3V 390μF)

Nichicon part number

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

- 14: Taping code
- 12–13: Control code
- 10–11: Configuration
- 9: Capacitance tolerance (±20%)
- 6–8: Rated capacitance (390μF)
- 4–5: Rated voltage (6.3V)
- 3: Series name
- 1–2: Type

FPCAP part number

FP	6R3	ME	391	M	HS	R	

- 8: Control code
- 7: Taping code
- 6: Series name
- 5: Capacitance tolerance (±20%)
- 4: Capacitance (390μF)
- 3: Configuration
- 2: Voltage(6.3V)
- 1: 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.

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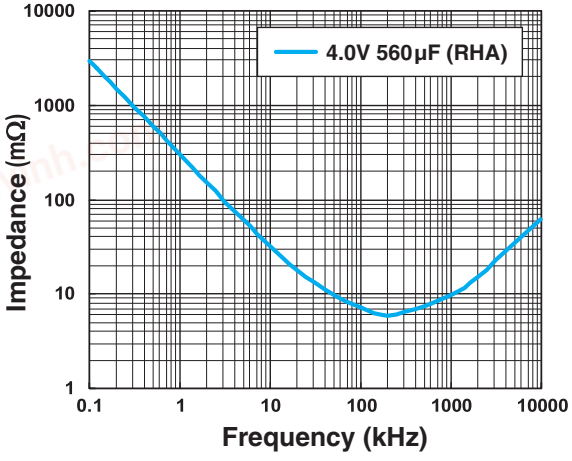
■ Dimensions

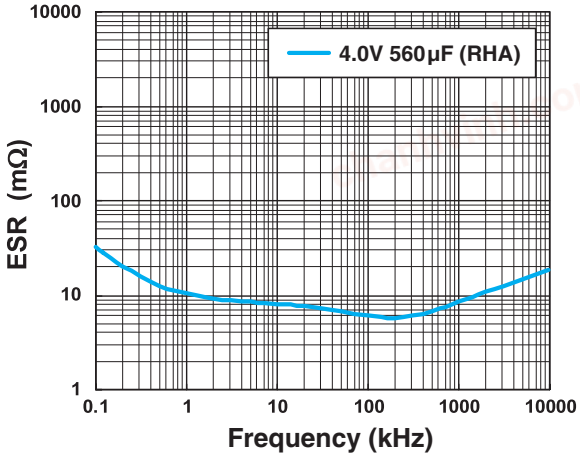
Rated Voltage (V) (code)	Surge Voltage (V)	Rated Capacitance (μF)	Case Size φD×L (mm)	tan δ	Leakage Current (μA) (at 20°C after 2 minutes)	ESR (mΩ) (20°C/100kHz)	Rated Ripple Current (mArms) (105°C/100kHz)	NICHICON	FPCAP
2.5 (0E)	2.8	680	8×6.7	0.12	700	8	5000	RHA0E681MCN1GS	FP-2R5ME681M-HAR
		820	8×11.7	0.12	700	9	5400	RHS0E821MCN1GS	FP-2R5ME821M-HSR
		820	8×6.7	0.12	700	8	5000	RHA0E821MCN1GS	FP-2R5ME821M-HAR
		1000	8×7.7	0.12	750	8	5000	RHA0E102MCN1GS	FP-2R5ME102M-HAR
		1500	8×11.7	0.12	1125	9	5400	RHS0E152MCN1GS	FP-2R5ME152M-HSR
4.0 (0G)	4.6	560	8×6.7	0.12	700	16	3200	RHS0G561MCN1GS	FP-4R0ME561M-HSR
		560	8×6.7	0.12	700	8	5000	RHA0G561MCN1GS	FP-4R0ME561M-HAR
		680	8×7.7	0.12	816	8	5000	RHA0G681MCN1GS	FP-4R0ME681M-HAR
		1200	8×11.7	0.12	1440	9	5400	RHS0G122MCN1GS	FP-4R0ME122M-HSR
		1500	8×11.7	0.12	1800	12	4700	RHS0G152MCN1GS	FP-4R0ME152M-HSR
6.3 (0J)	7.2	330	8×6.7	0.12	700	9	4500	RHA0J331MCN1GS	FP-6R3ME331M-HAR
		390	8×6.7	0.12	737	18	3200	RHS0J391MCN1GS	FP-6R3ME391M-HSR
		390	8×6.7	0.12	737	9	4500	RHA0J391MCN1GS	FP-6R3ME391M-HAR
		470	8×6.7	0.12	888	9	4500	RHA0J471MCN1GS	FP-6R3ME471M-HAR
		560	8×7.7	0.12	1058	9	4500	RHA0J561MCN1GS	FP-6R3ME561M-HAR
		820	8×11.7	0.12	1550	10	5150	RHS0J821MCN1GS	FP-6R3ME821M-HSR
		1000	8×11.7	0.12	1890	10	5150	RHS0J102MCN1GS	FP-6R3ME102M-HSR
10 (1A)	11.5	150	8×6.7	0.12	700	25	3000	RHS1A151MCN1GS	FP-010ME151M-HSR
		330	8×7.7	0.12	660	19	3390	RHS1A331MCN1GS	FP-010ME331M-HSR
16 (1C)	18.4	150	8×6.7	0.12	700	22	3220	RHA1C151MCN1GS	FP-016ME151M-HAR
		270	8×6.7	0.12	864	22	3300	RHA1C271MCN1GS	FP-016ME271M-HAR
		270	8×8.7	0.12	864	16	4000	RHA1C271MCN9GS	FP-016ME271M-HAR-US
		＊270	8×8.7	0.12	864	16	4070	RHA1C271MCNBSQGS	FP-016ME271M-HAR-5K-US
		330	8×8.7	0.12	1056	16	4000	RHA1C331MCN1GS	FP-016ME331M-HAR
		＊330	8×8.7	0.12	1056	16	4070	RHA1C331MCNASQGS	FP-016ME331M-HAR-5K
		390	8×8.7	0.12	1248	16	4000	RHA1C391MCN1GS	FP-016ME391M-HAR
		＊390	8×8.7	0.12	1248	16	4070	RHA1C391MCNASQGS	FP-016ME391M-HAR-5K
		470	8×8.7	0.12	1504	16	4000	RHA1C471MCN1GS	FP-016ME471M-HAR
		＊470	8×8.7	0.12	1504	16	4070	RHA1C471MCNASQGS	FP-016ME471M-HAR-5K
		560	8×8.7	0.12	1792	16	4070	RHA1C561MCN1GS	FP-016ME561M-HAR
		560	8×11.7	0.12	1792	14	4950	RHS1C561MCN1GS	FP-016ME561M-HSR
		＊560	8×8.7	0.12	1792	16	4070	RHA1C561MCNASQGS	FP-016ME561M-HAR-5K
		680	8×11.7	0.12	2176	14	4950	RHS1C681MCN1GS	FP-016ME681M-HSR
20 (1D)	23.0	390	8×11.7	0.12	1560	14	4950	RHS1D391MCN1GS	FP-020ME391M-HSR
25 (1E)	28.7	100	8×8.7	0.12	700	18	4000	RHS1E101MCN1GS	FP-025ME101M-HSR
35 (1V)	40.2	56	8×8.7	0.12	392	25	3000	RHS1V560MCN1GS	FP-035ME560M-HSR
		100	8×8.7	0.12	700	25	3000	RHS1V101MCN1GS	FP-035ME101M-HSR

＊: Load life 5000hours.

Blue : New product

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





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