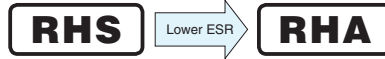


# RHS / RHA High Capacitance (φ8)

- 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).



# FPCAP



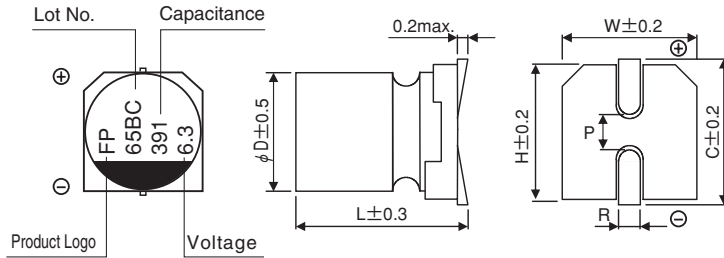
## Specifications

| 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

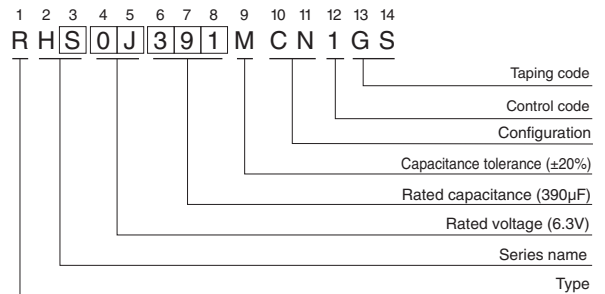


| (mm)   |     |     |     |            |     |  |
|--------|-----|-----|-----|------------|-----|--|
| φD×L   | W   | H   | C   | R          | P   |  |
| 8×6.7  | 8.3 | 8.3 | 9.0 | 0.8 to 1.1 | 3.2 |  |
| 8×7.7  | 8.3 | 8.3 | 9.0 | 0.8 to 1.1 | 3.2 |  |
| 8×8.7  | 8.3 | 8.3 | 9.0 | 0.8 to 1.1 | 3.2 |  |
| 8×11.7 | 8.3 | 8.3 | 9.0 | 0.8 to 1.1 | 3.2 |  |

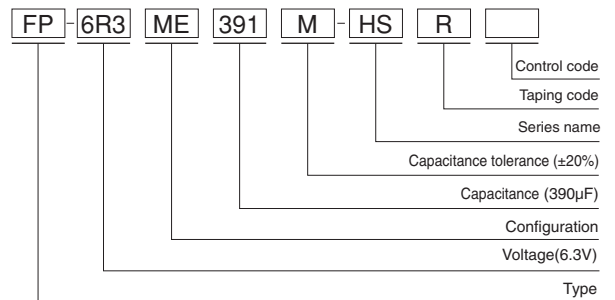
### Frequency coefficient of rated ripple current

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

## Type numbering system (Example : 6.3V 390μF) Nichicon part number



## FPCAP part number



● Dimension table in next page.

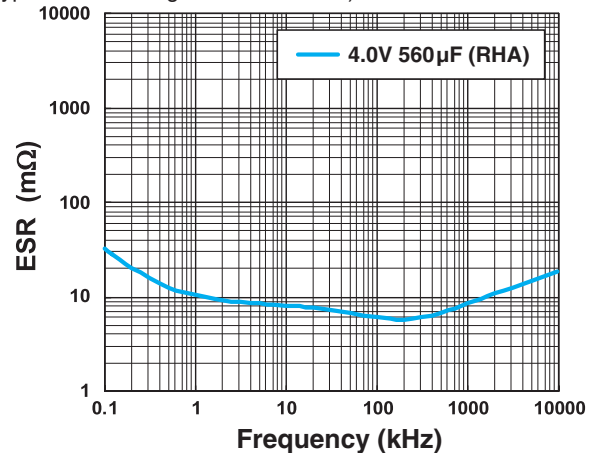
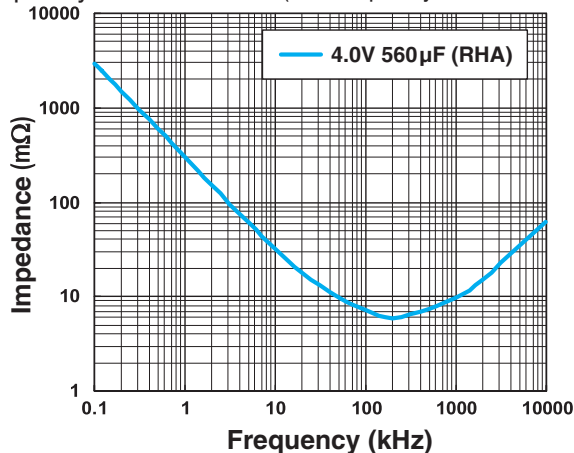
# RHS / RHA

## ■ Dimensions

| Rated Voltage (V) (code) | Surge Voltage (V) | Rated Capacitance (μF) | Case Size φDxL (mm) | tan δ | Leakage Current (μA) (at 20°C after 2 minutes) | ESR (mΩ) (20°C/100kHz) | Rated Ripple Current (mA <sub>rms</sub> ) (105°C/100kHz) | NICHICON         | FPCAP                  |
|--------------------------|-------------------|------------------------|---------------------|-------|--|------------------------|--|------------------|------------------------|
| 2.5 (0E)                 | 2.8               | 680                    | 8x6.7               | 0.12  | 700  | 8                      | 5000   | RHA0E681MCN1GS   | FP-2R5ME681M-HAR       |
|                          |                   | 820                    | 8x11.7              | 0.12  | 700  | 9                      | 5400   | RHS0E821MCN1GS   | FP-2R5ME821M-HSR       |
|                          |                   | 820                    | 8x6.7               | 0.12  | 700  | 8                      | 5000   | RHA0E821MCN1GS   | FP-2R5ME821M-HAR       |
|                          |                   | 1000                   | 8x7.7               | 0.12  | 750  | 8                      | 5000   | RHA0E102MCN1GS   | FP-2R5ME102M-HAR       |
|                          |                   | 1500                   | 8x11.7              | 0.12  | 1125   | 9                      | 5400   | RHS0E152MCN1GS   | FP-2R5ME152M-HSR       |
| 4.0 (0G)                 | 4.6               | 560                    | 8x6.7               | 0.12  | 700  | 16                     | 3200   | RHS0G561MCN1GS   | FP-4R0ME561M-HSR       |
|                          |                   | 560                    | 8x6.7               | 0.12  | 700  | 8                      | 5000   | RHA0G561MCN1GS   | FP-4R0ME561M-HAR       |
|                          |                   | 680                    | 8x7.7               | 0.12  | 816  | 8                      | 5000   | RHA0G681MCN1GS   | FP-4R0ME681M-HAR       |
|                          |                   | 1200                   | 8x11.7              | 0.12  | 1440   | 9                      | 5400   | RHS0G122MCN1GS   | FP-4R0ME122M-HSR       |
|                          |                   | 1500                   | 8x11.7              | 0.12  | 1800   | 12                     | 4700   | RHS0G152MCN1GS   | FP-4R0ME152M-HSR       |
| 6.3 (0J)                 | 7.2               | 330                    | 8x6.7               | 0.12  | 700  | 9                      | 4500   | RHA0J331MCN1GS   | FP-6R3ME331M-HAR       |
|                          |                   | 390                    | 8x6.7               | 0.12  | 737  | 18                     | 3200   | RHS0J391MCN1GS   | FP-6R3ME391M-HSR       |
|                          |                   | 390                    | 8x6.7               | 0.12  | 737  | 9                      | 4500   | RHA0J391MCN1GS   | FP-6R3ME391M-HAR       |
|                          |                   | 470                    | 8x6.7               | 0.12  | 888  | 9                      | 4500   | RHA0J471MCN1GS   | FP-6R3ME471M-HAR       |
|                          |                   | 560                    | 8x7.7               | 0.12  | 1058   | 9                      | 4500   | RHA0J561MCN1GS   | FP-6R3ME561M-HAR       |
|                          |                   | 820                    | 8x11.7              | 0.12  | 1549   | 10                     | 5150   | RHS0J821MCN1GS   | FP-6R3ME821M-HSR       |
|                          |                   | 1000                   | 8x11.7              | 0.12  | 1890   | 10                     | 5150   | RHS0J102MCN1GS   | FP-6R3ME102M-HSR       |
| 10 (1A)                  | 11.5              | 150                    | 8x6.7               | 0.12  | 700  | 25                     | 3000   | RHS1A151MCN1GS   | FP-010ME151M-HSR       |
|                          |                   | 330                    | 8x7.7               | 0.12  | 660  | 19                     | 3390   | RHS1A331MCN1GS   | FP-010ME331M-HSR       |
| 16 (1C)                  | 18.4              | 150                    | 8x6.7               | 0.12  | 700  | 22                     | 3220   | RHA1C151MCN1GS   | FP-016ME151M-HAR       |
|                          |                   | 270                    | 8x6.7               | 0.12  | 864  | 22                     | 3300   | RHA1C271MCN1GS   | FP-016ME271M-HAR       |
|                          |                   | 270                    | 8x8.7               | 0.12  | 864  | 16                     | 4000   | RHA1C271MCN9GS   | FP-016ME271M-HAR-US    |
|                          |                   | *270                   | 8x8.7               | 0.12  | 864  | 16                     | 4070   | RHA1C271MCNBSQGS | FP-016ME271M-HAR-5K-US |
|                          |                   | 330                    | 8x8.7               | 0.12  | 1056   | 16                     | 4000   | RHA1C331MCN1GS   | FP-016ME331M-HAR       |
|                          |                   | *330                   | 8x8.7               | 0.12  | 1056   | 16                     | 4070   | RHA1C331MCNASQGS | FP-016ME331M-HAR-5K    |
|                          |                   | 390                    | 8x8.7               | 0.12  | 1248   | 16                     | 4000   | RHA1C391MCN1GS   | FP-016ME391M-HAR       |
|                          |                   | *390                   | 8x8.7               | 0.12  | 1248   | 16                     | 4070   | RHA1C391MCNASQGS | FP-016ME391M-HAR-5K    |
|                          |                   | 470                    | 8x8.7               | 0.12  | 1504   | 16                     | 4000   | RHA1C471MCN1GS   | FP-016ME471M-HAR       |
|                          |                   | *470                   | 8x8.7               | 0.12  | 1504   | 16                     | 4070   | RHA1C471MCNASQGS | FP-016ME471M-HAR-5K    |
|                          |                   | 560                    | 8x8.7               | 0.12  | 1792   | 16                     | 4070   | RHA1C561MCN1GS   | FP-016ME561M-HAR       |
|                          |                   | 560                    | 8x11.7              | 0.12  | 1792   | 14                     | 4950   | RHS1C561MCN1GS   | FP-016ME561M-HSR       |
|                          |                   | *560                   | 8x8.7               | 0.12  | 1792   | 16                     | 4070   | RHA1C561MCNASQGS | FP-016ME561M-HAR-5K    |
|                          |                   | 680                    | 8x11.7              | 0.12  | 2176   | 14                     | 4950   | RHS1C681MCN1GS   | FP-016ME681M-HSR       |
| 20 (1D)                  | 23.0              | 390                    | 8x11.7              | 0.12  | 1560   | 14                     | 4950   | RHS1D391MCN1GS   | FP-020ME391M-HSR       |
| 25 (1E)                  | 28.7              | 82                     | 8x6.7               | 0.12  | 410  | 38                     | 3200   | RHA1E820MCN1GS   | FP-025ME820M-HAR       |
|                          |                   | 100                    | 8x6.7               | 0.12  | 500  | 38                     | 3200   | RHA1E101MCN1GS   | FP-025ME101M-HAR       |
|                          |                   | 100                    | 8x8.7               | 0.12  | 700  | 18                     | 4000   | RHS1E101MCN1GS   | FP-025ME101M-HSR       |
|                          |                   | 120                    | 8x6.7               | 0.12  | 600  | 38                     | 3200   | RHA1E121MCN1GS   | FP-025ME121M-HAR       |
|                          |                   | 150                    | 8x6.7               | 0.12  | 750  | 38                     | 3200   | RHA1E151MCN1GS   | FP-025ME151M-HAR       |
| 35 (1V)                  | 40.2              | 56                     | 8x8.7               | 0.12  | 392  | 25                     | 3000   | RHS1V560MCN1GS   | FP-035ME560M-HSR       |
|                          |                   | 100                    | 8x8.7               | 0.12  | 700  | 25                     | 3000   | RHS1V101MCN1GS   | FP-035ME101M-HSR       |

\* : Load life 5000hours.

## ■ 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.