

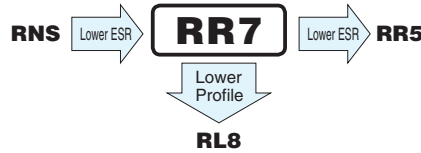
# RR7 Low ESR



## FPCAP Expanded



- 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).



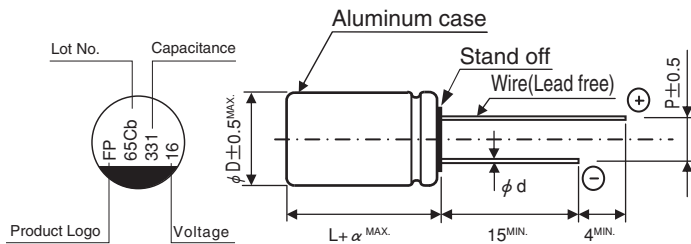
### Specifications

| Item                          | Performance Characteristics  |   |
|-------------------------------|--|---|
| Category Temperature Range    | -55 to +105°C  |   |
| Rated Voltage Range           | 2.5 to 16V   |   |
| Rated Capacitance Range       | 68 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 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.

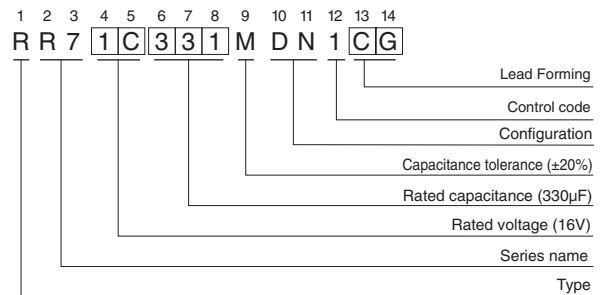
### Dimensions



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

(mm)

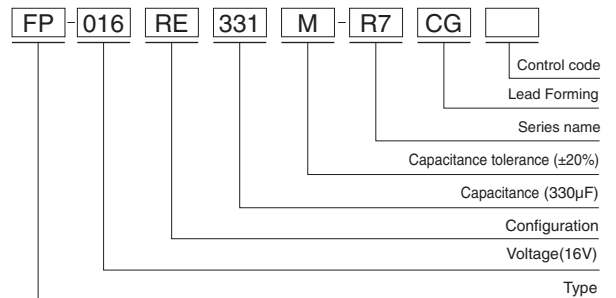
### Type numbering system (Example : 16V 330μF) Nichicon part number



### ● 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



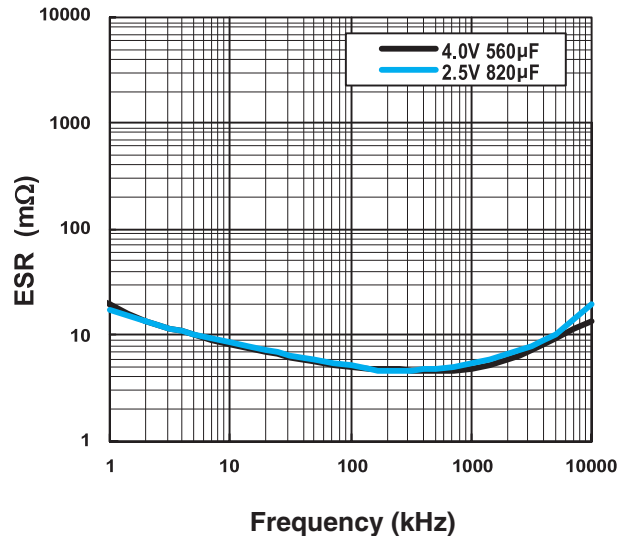
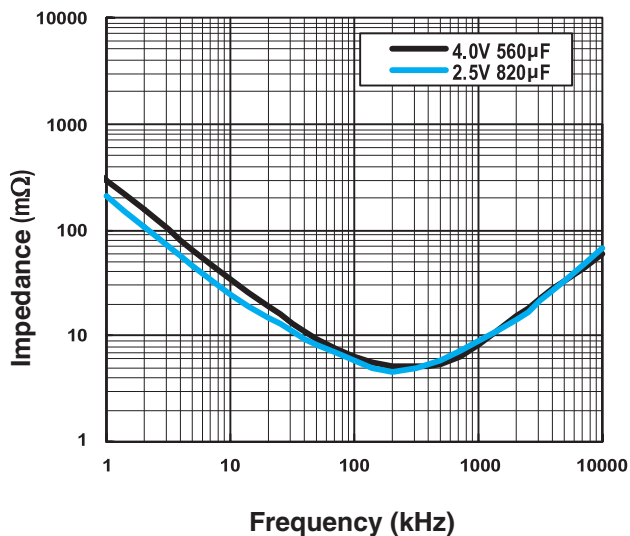
# RR7

## ■ 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 (mA <sub>rms</sub> ) (105°C/100kHz) | NICHICON         | FPCAP                |
|--------------------------|-------------------|------------------------|---------------------|-------|-----------------------------|------------------------|--|------------------|----------------------|
| 2.5 (0E)                 | 2.8               | 680                    | 8×11.5              | 0.08  | 425                         | 7                      | 5600   | RR70E681MDN1□□   | FP-2R5RE681M-R7□□    |
|                          |                   | 820                    | 8×11.5              | 0.08  | 513                         | 7                      | 5600   | RR70E821MDN1□□   | FP-2R5RE821M-R7□□    |
|                          |                   | 1500                   | 10×12.5             | 0.08  | 938                         | 7                      | 6100   | RR70E152MDN1□□   | FP-2R5RE152M-R7□□    |
| 4.0 (0G)                 | 4.6               | 560                    | 8×11.5              | 0.08  | 224                         | 7                      | 5600   | RR70G561MDN1□□   | FP-4R0RE561M-R7□□    |
|                          |                   | 820                    | 10×12.5             | 0.08  | 328                         | 7                      | 6100   | RR70G821MDN1□□   | FP-4R0RE821M-R7□□    |
|                          |                   | 1200                   | 10×12.5             | 0.15  | 960                         | 7                      | 6100   | RR70G122MDN1□□   | FP-4R0RE122M-R7□□    |
| 6.3 (0J)                 | 7.2               | 150                    | 8×11.5              | 0.07  | 47                          | 7                      | 5600   | RR70J151MDN1□□   | FP-6R3RE151M-R7□□    |
|                          |                   | 220                    | 8×11.5              | 0.07  | 69                          | 7                      | 5600   | RR70J221MDN1□□   | FP-6R3RE221M-R7□□    |
|                          |                   | 330                    | 10×12.5             | 0.07  | 104                         | 7                      | 6100   | RR70J331MDN1□□   | FP-6R3RE331M-R7□□    |
|                          |                   | 390                    | 8×11.5              | 0.08  | 246                         | 7                      | 5600   | RR70J391MDN1□□   | FP-6R3RE391M-R7□□    |
|                          |                   | 680                    | 10×12.5             | 0.08  | 428                         | 7                      | 6100   | RR70J681MDN1□□   | FP-6R3RE681M-R7□□    |
|                          |                   | 820                    | 10×12.5             | 0.12  | 517                         | 7                      | 6100   | RR70J821MDN1□□   | FP-6R3RE821M-R7□□    |
|                          |                   | 1000                   | 10×12.5             | 0.12  | 630                         | 7                      | 6100   | RR70J102MDN1□□   | FP-6R3RE102M-R7□□    |
| 10 (1A)                  | 11.5              | 100                    | 8×11.5              | 0.07  | 50                          | 7                      | 5600   | RR71A101MDN1□□   | FP-010RE101M-R7□□    |
|                          |                   | 220                    | 10×12.5             | 0.07  | 110                         | 7                      | 6100   | RR71A221MDN1□□   | FP-010RE221M-R7□□    |
|                          |                   | 470                    | 10×12.5             | 0.08  | 470                         | 7                      | 6100   | RR71A471MDN1□□   | FP-010RE471M-R7□□    |
|                          |                   | 680                    | 10×12.5             | 0.10  | 1360                        | 7                      | 6100   | RR71A681MDN1□□   | FP-010RE681M-R7□□    |
| 16 (1C)                  | 18.4              | 68                     | 8×11.5              | 0.06  | 54                          | 7                      | 5600   | RR71C680MDN1□□   | FP-016RE680M-R7□□    |
|                          |                   | 100                    | 8×11.5              | 0.06  | 80                          | 7                      | 5600   | RR71C101MDN1□□   | FP-016RE101M-R7□□    |
|                          |                   | 150                    | 10×12.5             | 0.06  | 120                         | 7                      | 6100   | RR71C151MDN1□□   | FP-016RE151M-R7□□    |
|                          |                   | 270                    | 10×12.5             | 0.08  | 648                         | 7                      | 6100   | RR71C271MDN1□□   | FP-016RE271M-R7□□    |
|                          |                   | 330                    | 10×12.5             | 0.08  | 792                         | 7                      | 6100   | RR71C331MDN1□□   | FP-016RE331M-R7□□    |
|                          |                   | *330                   | 10×12.5             | 0.08  | 792                         | 7                      | 6100   | RR71C331MDNASQ□□ | FP-016RE331M-R7□□-5K |

\* : 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.