

RFS/RFA High Capacitance (φ4, φ5)



FPCAP



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

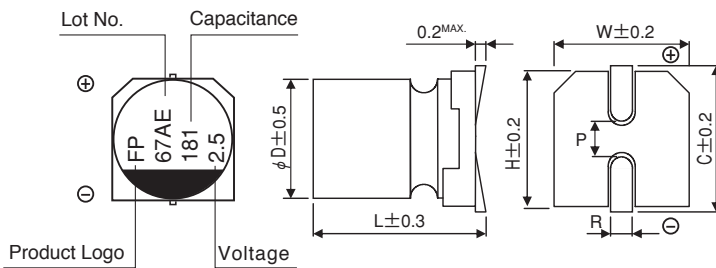


■ Specifications

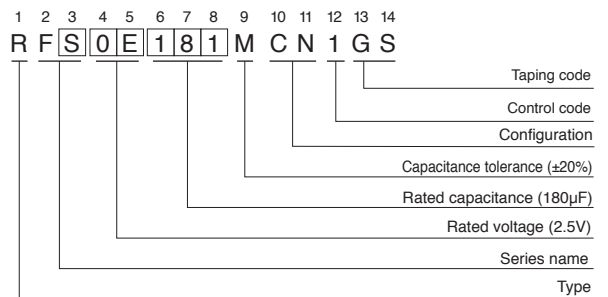
| Item | Performance Characteristics | |
|-------------------------------|--|---|
| Category Temperature Range | -55 to +105°C | |
| Rated Voltage Range | 2.5 to 25V | |
| Rated Capacitance Range | 10 to 330μF | |
| Capacitance Tolerance | ±20% at 120Hz, 20°C | |
| Tangent of loss angle (tan δ) | Less 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 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



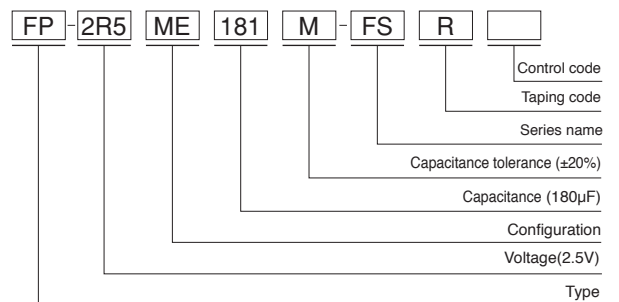
Type numbering system (Example : 2.5V 180μF)
 Nichicon part number



(mm)

| φD×L | W | H | C | R | P |
|-------|-----|-----|-----|------------|-----|
| 4×5.2 | 4.3 | 4.3 | 5.1 | 0.5 to 0.9 | 1.0 |
| 5×5.7 | 5.3 | 5.3 | 5.9 | 0.5 to 0.9 | 1.4 |

FPCAP part number



● Frequency coefficient of rated ripple current

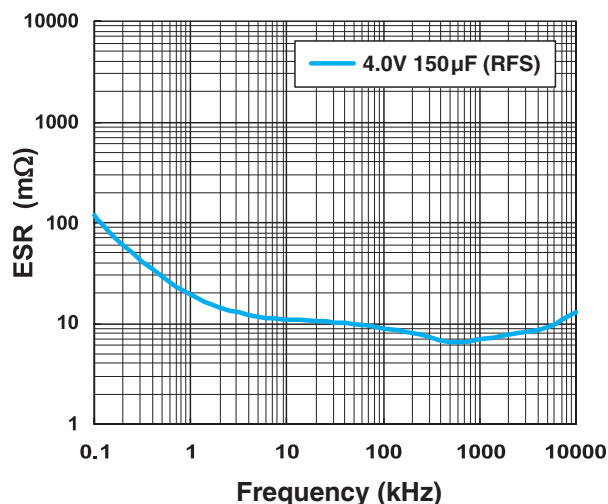
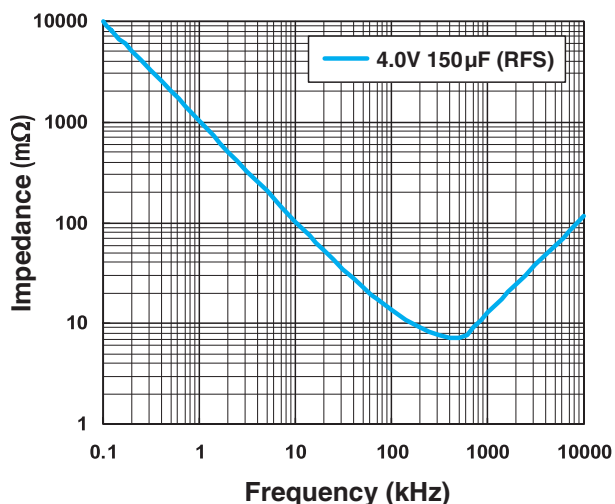
| Frequency | 120 Hz | 1 kHz | 10 kHz | 100 kHz | 300 kHz |
|-------------|--------|-------|--------|---------|---------|
| Coefficient | 0.10 | 0.45 | 0.50 | 1.00 | 1.00 |

RFS / RFA

■ 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 (mA _{rms}) (105°C/100kHz) | NICHICON | FPCAP |
|--------------------------|-------------------|------------------------|---------------------|-------|--|------------------------|--|----------------|------------------|
| 2.5 (0E) | 2.8 | 180 | 5×5.7 | 0.12 | 300 | 21 | 2670 | RFS0E181MCN1GS | FP-2R5ME181M-FSR |
| | | 330 | 5×5.7 | 0.12 | 500 | 10 | 3300 | RFA0E331MCN1GS | FP-2R5ME331M-FAR |
| 4.0 (0G) | 4.6 | 100 | 5×5.7 | 0.12 | 300 | 22 | 2610 | RFS0G101MCN1GS | FP-4R0ME101M-FSR |
| | | 150 | 5×5.7 | 0.12 | 300 | 22 | 2610 | RFS0G151MCN1GS | FP-4R0ME151M-FSR |
| 6.3 (0J) | 7.2 | 47 | 5×5.7 | 0.12 | 300 | 30 | 2000 | RFS0J470MCN1GS | FP-6R3ME470M-FSR |
| | | 100 | 5×5.7 | 0.12 | 300 | 24 | 2500 | RFS0J101MCN1GS | FP-6R3ME101M-FSR |
| | | 120 | 5×5.7 | 0.12 | 300 | 24 | 2500 | RFS0J121MCN1GS | FP-6R3ME121M-FSR |
| | | 180 | 5×5.7 | 0.12 | 567 | 17 | 3390 | RFA0J181MCN1GS | FP-6R3ME181M-FAR |
| 10 (1A) | 11.5 | 10 | 4×5.2 | 0.12 | 100 | 220 | 700 | RFS1A100MCN1GB | FP-010ME100M-FSR |
| | | 68 | 5×5.7 | 0.12 | 300 | 30 | 2000 | RFS1A680MCN1GS | FP-010ME680M-FSR |
| 16 (1C) | 18.4 | 22 | 5×5.7 | 0.12 | 100 | 45 | 1210 | RFS1C220MCN1GS | FP-016ME220M-FSR |
| | | 33 | 5×5.7 | 0.12 | 105 | 35 | 2070 | RFS1C330MCN1GS | FP-016ME330M-FSR |
| | | 39 | 5×5.7 | 0.12 | 125 | 35 | 2070 | RFS1C390MCN1GS | FP-016ME390M-FSR |
| | | 100 | 5×5.7 | 0.12 | 320 | 27 | 3000 | RFS1C101MCN1GS | FP-016ME101M-FSR |
| 25 (1E) | 28.7 | 22 | 5×5.7 | 0.12 | 300 | 40 | 2200 | RFS1E220MCN1GS | FP-025ME220M-FSR |
| | | 27 | 5×5.7 | 0.12 | 135 | 40 | 2450 | RFS1E270MCN1GS | FP-025ME270M-FSR |

■ 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.

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