

RPS / RPA

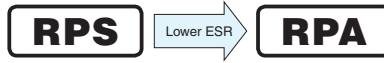
Standard
(φ6.3, φ8, φ10)



FPCAP Expanded



- High voltage (to 63V), Low ESR, 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).



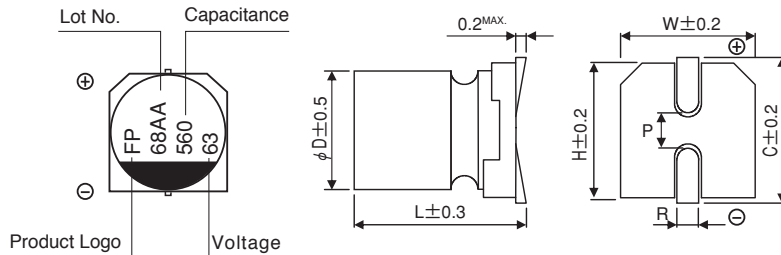
Specifications

| Item | Performance Characteristics | |
|-------------------------------|--|---|
| Category Temperature Range | -55 to +105°C | |
| Rated Voltage Range | 2.5 to 63V | |
| Rated Capacitance Range | 8.2 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 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



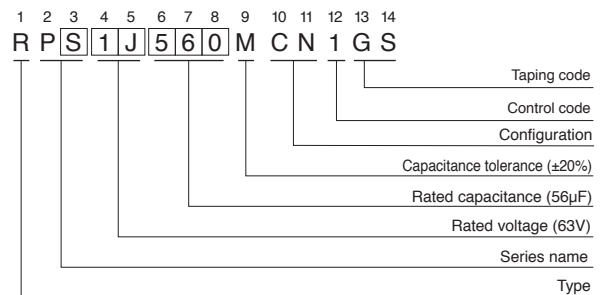
| (mm) | | | | | |
|---------|------|------|------|------------|-----|
| φD×L | W | H | C | R | P |
| 6.3×5.7 | 6.5 | 6.5 | 7.2 | 0.5 to 0.9 | 2.1 |
| 8×6.7 | 8.3 | 8.3 | 9.0 | 0.8 to 1.1 | 3.2 |
| 8×11.7 | 8.3 | 8.3 | 9.0 | 0.8 to 1.1 | 3.2 |
| 10×7.7 | 10.3 | 10.3 | 11.0 | 0.8 to 1.1 | 4.6 |
| 10×12.4 | 10.3 | 10.3 | 11.0 | 0.8 to 1.1 | 4.6 |

● Frequency coefficient of rated ripple current

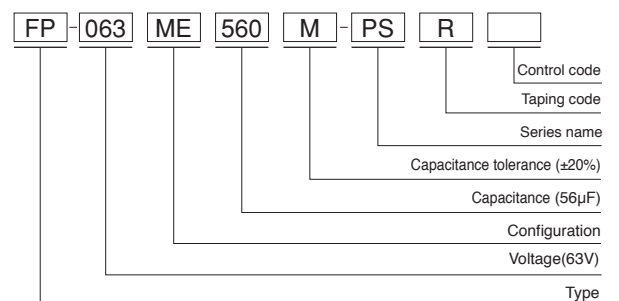
| Frequency | 120 Hz | 1 kHz | 10 kHz | 100 kHz | 300 kHz |
|-------------|--------|-------|--------|---------|---------|
| Coefficient | 0.10 | 0.45 | 0.50 | 1.00 | 1.00 |

Type numbering system (Example : 63V 56μF)

Nichicon part number



FPCAP part number



RPS / RPA

■ Standard Ratings

| Rated Voltage (V) (code) | Surge Voltage (V) | Rated Capacitance (μF) | Case Size φD×L (mm) | tan δ | Leakage Current (μA, 2min.) | ESR (mΩ, 100kHz) | Rated Ripple Current (mA _{rms}) | NICHICON | FPCAP |
|--------------------------|-------------------|------------------------|---------------------|-------|-----------------------------|------------------|---|----------------|------------------|
| 2.5 (0E) | 2.8 | 680 | 8×11.7 | 0.12 | 425 | 13 | 4500 | RPS0E681MCN1GS | FP-2R5ME681M-PSR |
| | | 1500 | 10×12.4 | 0.12 | 938 | 10 | 5500 | RPS0E152MCN1GS | FP-2R5ME152M-PSR |
| 4.0 (0G) | 4.6 | 100 | 6.3×5.7 | 0.12 | 80 | 35 | 2200 | RPS0G101MCN1GS | FP-4R0ME101M-PSR |
| | | 220 | 8×6.7 | 0.12 | 176 | 30 | 2700 | RPS0G221MCN1GS | FP-4R0ME221M-PSR |
| | | 330 | 8×6.7 | 0.12 | 264 | 30 | 2700 | RPS0G331MCN1GS | FP-4R0ME331M-PSR |
| | | 470 | 10×7.7 | 0.12 | 376 | 22 | 3800 | RPS0G471MCN1GS | FP-4R0ME471M-PSR |
| | | 560 | 8×11.7 | 0.12 | 448 | 13 | 4500 | RPS0G561MCN1GS | FP-4R0ME561M-PSR |
| | | 560 | 8×11.7 | 0.12 | 448 | 9 | 5400 | RPA0G561MCN1GS | FP-4R0ME561M-PAR |
| | | 680 | 10×7.7 | 0.12 | 544 | 22 | 3800 | RPS0G681MCN1GS | FP-4R0ME681M-PSR |
| | | 1200 | 10×12.4 | 0.12 | 960 | 12 | 5500 | RPS0G122MCN1GS | FP-4R0ME122M-PSR |
| 6.3 (0J) | 7.2 | 82 | 6.3×5.7 | 0.12 | 103 | 35 | 2200 | RPS0J820MCN1GS | FP-6R3ME820M-PSR |
| | | 150 | 8×6.7 | 0.12 | 189 | 30 | 2600 | RPS0J151MCN1GS | FP-6R3ME151M-PSR |
| | | 180 | 8×6.7 | 0.12 | 227 | 30 | 2600 | RPS0J181MCN1GS | FP-6R3ME181M-PSR |
| | | 330 | 10×7.7 | 0.12 | 416 | 22 | 3600 | RPS0J331MCN1GS | FP-6R3ME331M-PSR |
| | | 470 | 8×11.7 | 0.15 | 592 | 15 | 4300 | RPS0J471MCN1GS | FP-6R3ME471M-PSR |
| | | 470 | 10×7.7 | 0.12 | 592 | 18 | 4300 | RPA0J471MCN1GS | FP-6R3ME471M-PAR |
| | | 560 | 8×11.7 | 0.15 | 706 | 14 | 4400 | RPS0J561MCN1GS | FP-6R3ME561M-PSR |
| | | 680 | 10×12.4 | 0.15 | 643 | 13 | 5200 | RPS0J681MCN1GS | FP-6R3ME681M-PSR |
| | | 820 | 10×12.4 | 0.15 | 775 | 12 | 5500 | RPS0J821MCN1GS | FP-6R3ME821M-PSR |
| | | 1000 | 10×12.4 | 0.15 | 945 | 12 | 5500 | RPS0J102MCN1GS | FP-6R3ME102M-PSR |
| 10 (1A) | 11.5 | 47 | 6.3×5.7 | 0.12 | 94 | 40 | 2100 | RPS1A470MCN1GS | FP-010ME470M-PSR |
| | | 56 | 6.3×5.7 | 0.12 | 112 | 40 | 2100 | RPS1A560MCN1GS | FP-010ME560M-PSR |
| | | 120 | 8×6.7 | 0.12 | 240 | 30 | 2600 | RPS1A121MCN1GS | FP-010ME121M-PSR |
| | | 270 | 10×7.7 | 0.12 | 540 | 25 | 3500 | RPS1A271MCN1GS | FP-010ME271M-PSR |
| | | 330 | 8×11.7 | 0.15 | 660 | 17 | 4000 | RPS1A331MCN1GS | FP-010ME331M-PSR |
| | | 330 | 10×7.7 | 0.12 | 660 | 20 | 3600 | RPA1A331MCN1GS | FP-010ME331M-PAR |
| 16 (1C) | 18.4 | 560 | 10×12.4 | 0.15 | 840 | 13 | 5300 | RPS1A561MCN1GS | FP-010ME561M-PSR |
| | | 33 | 6.3×5.7 | 0.10 | 211 | 40 | 1700 | RPS1C330MCN1GS | FP-016ME330M-PSR |
| | | 39 | 6.3×5.7 | 0.10 | 125 | 45 | 2000 | RPS1C390MCN1GS | FP-016ME390M-PSR |
| | | 39 | 6.3×5.7 | 0.10 | 125 | 24 | 2500 | RPA1C390MCN1GS | FP-016ME390M-PAR |
| | | 56 | 8×6.7 | 0.10 | 179 | 40 | 2300 | RPS1C560MCN1GS | FP-016ME560M-PSR |
| | | 82 | 8×6.7 | 0.10 | 262 | 40 | 2300 | RPS1C820MCN1GS | FP-016ME820M-PSR |
| | | 100 | 10×7.7 | 0.10 | 320 | 30 | 3200 | RPS1C101MCN1GS | FP-016ME101M-PSR |
| | | 150 | 10×7.7 | 0.10 | 480 | 30 | 3200 | RPS1C151MCN1GS | FP-016ME151M-PSR |
| | | 180 | 8×11.7 | 0.12 | 576 | 20 | 3700 | RPS1C181MCN1GS | FP-016ME181M-PSR |
| | | 180 | 10×7.7 | 0.12 | 576 | 20 | 3600 | RPA1C181MCN1GS | FP-016ME181M-PAR |
| | | 220 | 8×11.7 | 0.12 | 704 | 20 | 3700 | RPS1C221MCN1GS | FP-016ME221M-PSR |
| | | 220 | 10×7.7 | 0.10 | 704 | 22 | 3450 | RPA1C221MCN1GS | FP-016ME221M-PAR |
| | | 270 | 8×11.7 | 0.12 | 864 | 14 | 4400 | RPS1C271MCN1GS | FP-016ME271M-PSR |
| | | 330 | 10×12.4 | 0.12 | 792 | 16 | 4800 | RPS1C331MCN1GS | FP-016ME331M-PSR |
| 470 | 10×12.4 | 0.12 | 1504 | 9 | 6100 | RPS1C471MCN1GS | FP-016ME471M-PSR | | |
| 820 | 10×12.4 | 0.12 | 2640 | 18 | 4200 | RPS1C821MCN1GS | FP-016ME821M-PSR | | |
| 1000 | 10×12.4 | 0.12 | 3200 | 12 | 5400 | RPS1C102MCN1GS | FP-016ME102M-PSR | | |
| 25 (1E) | 28.7 | 22 | 8×6.7 | 0.12 | 275 | 50 | 1800 | RPS1E220MCN1GS | FP-025ME220M-PSR |
| | | 100 | 8×11.7 | 0.12 | 500 | 24 | 3320 | RPS1E101MCN1GS | FP-025ME101M-PSR |
| | | 220 | 8×11.7 | 0.12 | 1100 | 18 | 4400 | RPS1E221MCN1GS | FP-025ME221M-PSR |
| | | 390 | 10×12.4 | 0.12 | 1950 | 16 | 4800 | RPS1E391MCN1GS | FP-025ME391M-PSR |
| 35 (1V) | 40.2 | 150 | 10×12.4 | 0.12 | 1050 | 28 | 2600 | RPS1V151MCN1GS | FP-035ME151M-PSR |
| 50 (1H) | 57.5 | 12 | 6.3×5.7 | 0.12 | 120 | 40 | 1250 | RPS1H120MCN1GS | FP-050ME120M-PSR |
| | | 22 | 8×6.7 | 0.12 | 220 | 37 | 1550 | RPS1H220MCN1GS | FP-050ME220M-PSR |
| | | 33 | 10×7.7 | 0.12 | 330 | 32 | 1950 | RPS1H330MCN1GS | FP-050ME330M-PSR |
| | | 39 | 8×11.7 | 0.15 | 390 | 26 | 2300 | RPS1H390MCN1GS | FP-050ME390M-PSR |
| | | 47 | 8×11.7 | 0.15 | 470 | 26 | 2300 | RPS1H470MCN1GS | FP-050ME470M-PSR |
| | | 82 | 10×12.4 | 0.15 | 820 | 23 | 2800 | RPS1H820MCN1GS | FP-050ME820M-PSR |
| 63 (1J) | 72.5 | 8.2 | 6.3×5.7 | 0.12 | 103 | 41 | 1200 | RPS1J8R2MCN1GS | FP-063ME8R2M-PSR |
| | | 12 | 8×6.7 | 0.12 | 151 | 38 | 1500 | RPS1J120MCN1GS | FP-063ME120M-PSR |
| | | 22 | 10×7.7 | 0.12 | 277 | 33 | 1900 | RPS1J220MCN1GS | FP-063ME220M-PSR |
| | | 33 | 8×11.7 | 0.15 | 416 | 27 | 2250 | RPS1J330MCN1GS | FP-063ME330M-PSR |
| | | 56 | 10×12.4 | 0.15 | 706 | 24 | 2700 | RPS1J560MCN1GS | FP-063ME560M-PSR |

- Taping specifications are given in page 28.
- Recommended land size, soldering by reflow are given in page 25.
- Please refer to page 3 for the minimum order quantity.