



**THE DATASHEET OF  
RPS1H470MCN1GS**



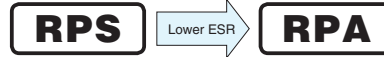
# RPS / RPA

Standard  
(φ6.3, φ8, φ10)



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



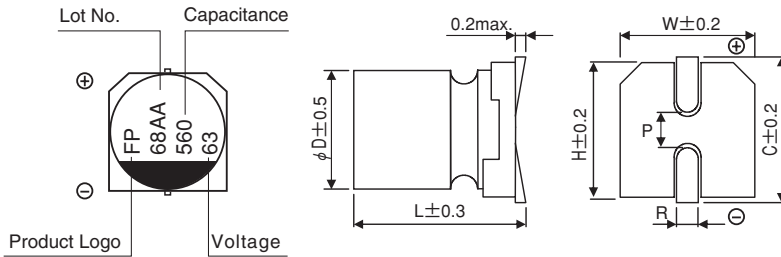
## Specifications

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



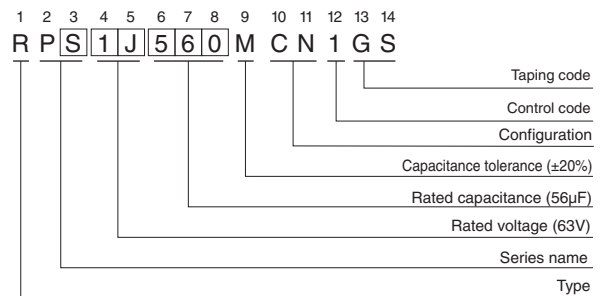
| (mm)    |      |      |      |            |     |
|---------|------|------|------|------------|-----|
| φD×L    | W    | H    | C    | R          | P   |
| 6.3×5.7 | 6.5  | 6.5  | 7.2  | 0.5 to 0.9 | 2.1 |
| 8×6.7   | 8.3  | 8.3  | 9.0  | 0.8 to 1.1 | 3.2 |
| 8×11.7  | 8.3  | 8.3  | 9.0  | 0.8 to 1.1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

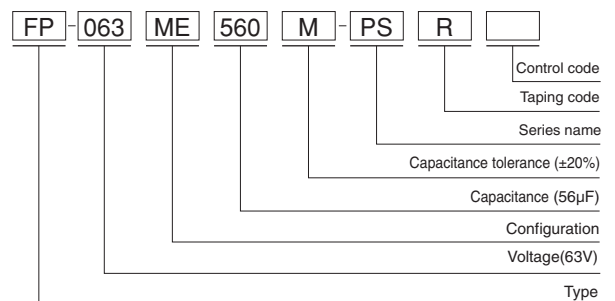
| Frequency   | 120 Hz | 1 kHz | 10 kHz | 100 kHz | 300 kHz |
|-------------|--------|-------|--------|---------|---------|
| Coefficient | 0.10   | 0.45  | 0.50   | 1.00    | 1.00    |

### Type numbering system (Example : 63V 56μF)

Nichicon part number



### FPCAP part number



● Dimension table in next page.

# RPS / RPA

## ■ 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 (mAmps) (105°C/100kHz) | 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  | 937  | 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  | 226  | 30                     | 2600  | RPS0J181MCN1GS | FP-6R3ME181M-PSR |                  |                     |
|                          |                   | 330                    | 10×7.7              | 0.12  | 415  | 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  | 705  | 14                     | 4400  | RPS0J561MCN1GS | FP-6R3ME561M-PSR |                  |                     |
|                          |                   | 680                    | 10×12.4             | 0.15  | 642  | 13                     | 5200  | RPS0J681MCN1GS | FP-6R3ME681M-PSR |                  |                     |
|                          |                   | 820                    | 10×12.4             | 0.15  | 774  | 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  | 124  | 45                     | 2000  | RPS1C390MCN1GS | FP-016ME390M-PSR |                  |                     |
|                          |                   | 39                     | 6.3×5.7             | 0.10  | 124  | 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 |                  |                     |
| 20 (1D)                  | 23.0              | 820                    | 10×12.4             | 0.12  | 2624   | 18                     | 4200  | RPS1C821MCN1GS | FP-016ME821M-PSR |                  |                     |
|                          |                   | 1000                   | 10×12.4             | 0.12  | 3200   | 12                     | 5400  | RPS1C102MCN1GS | FP-016ME102M-PSR |                  |                     |
|                          |                   | 1200                   | 10×12.4             | 0.12  | 3840   | 12                     | 5400  | RPS1C122MCN1GS | FP-016ME122M-PSR |                  |                     |
|                          |                   | 560                    | 10×12.4             | 0.10  | 2240   | 20                     | 3100  | RPA1D561MCN1GS | FP-020ME561M-PAR |                  |                     |
|                          |                   | 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    |
|                          |                   |                        |                     | *330  | 10×12.4  | 0.08                   | 1650  | 14             | 5000             | RPS1E331MCNASQGS | FP-025ME331M-PSR-5K |
|                          |                   |                        |                     | 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  | 415  | 27                     | 2250  | RPS1J330MCN1GS | FP-063ME330M-PSR |                  |                     |
|                          |                   | 56                     | 10×12.4             | 0.15  | 705  | 24                     | 2700  | RPS1J560MCN1GS | FP-063ME560M-PSR |                  |                     |

\* : Load life 5000hours.

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

## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

 [View RPS1H470MCN1GS on WIN SOURCE](#)

 [Nichicon Information](#)

## Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management