

FPCAP Functional Polymer Aluminum Solid Electrolytic Capacitors

PS & PA series

Low ESR

SMD

Lead-free

RoHS Compliance

Standard



Features

By using Functional Polymer cathode, Frequency & Temp. characteristics are greatly improved.

- Low ESR at a high frequency range.
- High ripple current capability.
- Long life and high reliability.

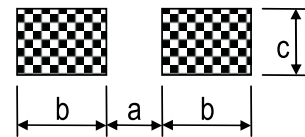
Applications

- Switching Power Supply and DC/DC Converter.
- Buck up Power Supplies of CPU (VRM etc.)
- Miniature high Power Supply.

Environmental Correspondence

- Any environmental hazardous substances are not used.
- The lead free of terminal plating (Sn 100%)

Recommended land pattern



[Unit: mm]

| ϕD | a | b | c |
|----------|-----|-----|-----|
| 6.3 | 2.1 | 3.5 | 1.6 |
| 8 | 2.8 | 4.2 | 1.9 |
| 10 | 4.3 | 4.4 | 1.9 |

Specifications

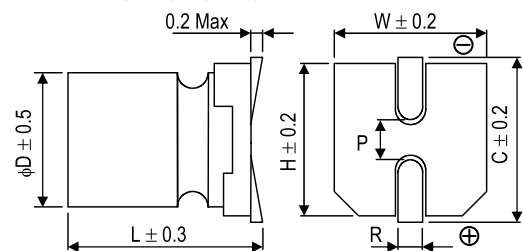
| Items | Characteristic | |
|-----------------------|-----------------------------|--|
| PS & PA | | |
| Operating temp. range | -55 to +105°C | |
| Rated voltage range | 2.5 to 16V-dc | |
| Capacitance range | 39 to 1500 μ F | |
| Capacitance tolerance | $\pm 20\%$ (M) | |
| Endurance | Test condition | 105°C, rated voltage 2000Hrs. |
| | Capacitance | Within $\pm 20\%$ of initial value before test |
| | Leakage current | Not to exceed the initial specified value |
| | ESR | Not to exceed 150% of initial specified value |
| | tan δ | Not to exceed 150% of initial specified value |
| Failure Rate | 0.5% / 1000Hrs. Max (60%CL) | |

Size List () : PA series

[$\phi D \times L$]

| R.V. (S.V.) Cap. [μ F] | 2.5 (2.8) | 4.0 (4.6) | 6.3 (7.2) | 10 (11.5) | 16 (18.4) |
|--------------------------------|--------------|--------------------|--------------|--------------|----------------------|
| 39 | | | | | 6.3×5.7 (6.3×5.7) |
| 47 | | | | 6.3×5.7 | |
| 56 | | | | 6.3×5.7 | 8×6.7 |
| 68 | | | | | |
| 82 | | | 6.3×5.7 | | 8×6.7 |
| 100 | | 6.3×5.7 | | | 10×7.7 |
| 120 | | | | 8×6.7 | |
| 150 | | | 8×6.7 | | 10×7.7 |
| 180 | | | 8×6.7 | | 8×11.7 |
| 220 | | 8×6.7 | | | 8×11.7 |
| 270 | | | | 10×7.7 | |
| 330 | | 8×6.7 | 10×7.7 | 8×11.7 | 10×12.4 |
| 470 | | 10×7.7 | 8×11.7 | | |
| 560 | | 8×11.7 (8×11.7) | 8×11.7 | 10×12.4 | |
| 680 | 8×11.7 | | 10×12.4 | | |
| 820 | | | 10×12.4 | | |
| 1000 | | | 10×12.4 | | |
| 1200 | | 10×12.4 | | | |
| 1500 | 10×12.4 | | | | |

Dimensions



[Unit: mm]

| $\phi D \times L$ | 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 |

● Part number & Specifications

| Rated Voltage (V) | Rated Capacitance (μF, 120Hz) | Part Number | | Leakage Current * (μA, 2 min) | tanδ (120Hz) | ESR (mΩ, 100kHz) | Rated Ripple Current (mA, r.m.s.) | Case Size φD×L(mm) |
|-------------------|-------------------------------|----------------|------------------|-------------------------------|--------------|------------------|-----------------------------------|--------------------|
| | | NICHICON | FPCAP | | | | | |
| 2.5 | 680 | RPS0E681MCN1GS | FP-2R5ME681M-PSR | 425 | 0.12 | 13 | 4500 | 8 × 11.7 |
| | 1500 | RPS0E152MCN1GS | FP-2R5ME152M-PSR | 938 | 0.12 | 10 | 5500 | 10 × 12.4 |
| 4.0 | 100 | RPS0G101MCN1GS | FP-4R0ME101M-PSR | 80 | 0.12 | 35 | 2200 | 6.3 × 5.7 |
| | 220 | RPS0G221MCN1GS | FP-4R0ME221M-PSR | 176 | 0.12 | 30 | 2700 | 8 × 6.7 |
| | 330 | RPS0G331MCN1GS | FP-4R0ME331M-PSR | 264 | 0.12 | 30 | 2700 | 8 × 6.7 |
| | 470 | RPS0G471MCN1GS | FP-4R0ME471M-PSR | 376 | 0.12 | 22 | 3800 | 10 × 7.7 |
| | 560 | RPS0G561MCN1GS | FP-4R0ME561M-PSR | 448 | 0.12 | 13 | 4500 | 8 × 11.7 |
| | 560 | RPA0G561MCN1GS | FP-4R0ME561M-PAR | 448 | 0.12 | 9 | 5400 | 8 × 11.7 |
| | 1200 | RPS0G122MCN1GS | FP-4R0ME122M-PSR | 960 | 0.12 | 12 | 5500 | 10 × 12.4 |
| 6.3 | 82 | RPS0J820MCN1GS | FP-6R3ME820M-PSR | 103 | 0.12 | 35 | 2200 | 6.3 × 5.7 |
| | 150 | RPS0J151MCN1GS | FP-6R3ME151M-PSR | 189 | 0.12 | 30 | 2600 | 8 × 6.7 |
| | 180 | RPS0J181MCN1GS | FP-6R3ME181M-PSR | 227 | 0.12 | 30 | 2600 | 8 × 6.7 |
| | 330 | RPS0J331MCN1GS | FP-6R3ME331M-PSR | 416 | 0.12 | 22 | 3600 | 10 × 7.7 |
| | 470 | RPS0J471MCN1GS | FP-6R3ME471M-PSR | 592 | 0.15 | 15 | 4300 | 8 × 11.7 |
| | 560 | RPS0J561MCN1GS | FP-6R3ME561M-PSR | 706 | 0.15 | 14 | 4400 | 8 × 11.7 |
| | 680 | RPS0J681MCN1GS | FP-6R3ME681M-PSR | 643 | 0.15 | 13 | 5200 | 10 × 12.4 |
| | 820 | RPS0J821MCN1GS | FP-6R3ME821M-PSR | 775 | 0.15 | 12 | 5500 | 10 × 12.4 |
| 10 | 1000 | RPS0J102MCN1GS | FP-6R3ME102M-PSR | 945 | 0.15 | 12 | 5500 | 10 × 12.4 |
| | 47 | RPS1A470MCN1GS | FP-010ME470M-PSR | 94 | 0.12 | 40 | 2100 | 6.3 × 5.7 |
| | 56 | RPS1A560MCN1GS | FP-010ME560M-PSR | 112 | 0.12 | 40 | 2100 | 6.3 × 5.7 |
| | 120 | RPS1A121MCN1GS | FP-010ME121M-PSR | 240 | 0.12 | 30 | 2600 | 8 × 6.7 |
| | 270 | RPS1A271MCN1GS | FP-010ME271M-PSR | 540 | 0.12 | 25 | 3500 | 10 × 7.7 |
| | 330 | RPS1A331MCN1GS | FP-010ME331M-PSR | 660 | 0.15 | 17 | 4000 | 8 × 11.7 |
| 16 | 560 | RPS1A561MCN1GS | FP-010ME561M-PSR | 840 | 0.15 | 13 | 5300 | 10 × 12.4 |
| | 39 | RPS1C390MCN1GS | FP-016ME390M-PSR | 125 | 0.10 | 45 | 2000 | 6.3 × 5.7 |
| | 39 | RPA1C390MCN1GS | FP-016ME390M-PAR | 125 | 0.10 | 24 | 2500 | 6.3 × 5.7 |
| | 56 | RPS1C560MCN1GS | FP-016ME560M-PSR | 179 | 0.10 | 40 | 2300 | 8 × 6.7 |
| | 82 | RPS1C820MCN1GS | FP-016ME820M-PSR | 262 | 0.10 | 40 | 2300 | 8 × 6.7 |
| | 100 | RPS1C101MCN1GS | FP-016ME101M-PSR | 320 | 0.10 | 30 | 3200 | 10 × 7.7 |
| | 150 | RPS1C151MCN1GS | FP-016ME151M-PSR | 480 | 0.10 | 30 | 3200 | 10 × 7.7 |
| | 180 | RPS1C181MCN1GS | FP-016ME181M-PSR | 576 | 0.12 | 20 | 3700 | 8 × 11.7 |
| 16 | 220 | RPS1C221MCN1GS | FP-016ME221M-PSR | 704 | 0.12 | 20 | 3700 | 8 × 11.7 |
| | 330 | RPS1C331MCN1GS | FP-016ME331M-PSR | 792 | 0.12 | 16 | 4800 | 10 × 12.4 |

* In case of some doubt about measured values, measure after applying rated voltage for 120 minutes at 105°C.

● Part Number (EX) 4V, 1200μF, PS series

| | | | | | | | |
|----------|-------------|---------------|-------------------|-----------------------|---------------|--------------|-------------|
| R | PS | 0G | 122 | M | CN | 1 | GS |
| Type | Series name | Rated Voltage | Rated Capacitance | Capacitance Tolerance | Configuration | Control code | Taping code |