

FPCAP Functional Polymer Aluminum Solid Electrolytic Capacitors

R5 series

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%)

Specifications

| Items | Characteristics | |
|-----------------------|-----------------------------|---|
| | R5 | |
| Operating Temp. Range | - 55 to + 105°C | |
| Rated Voltage Range | 2.5 to 6.3V-dc | |
| Capacitance Range | 390 to 1500µF | |
| Capacitance Tolerance | ± 20% (M) | |
| Endurance | Condition | 105°C 2000Hrs at rated voltage |
| | Capacitance | Within ± 20% of the value before test |
| | Leakage Current | Not to exceed the value specified |
| | tan δ | Not to exceed 150% of the value specified |
| Failure Rate | 0.1% / 1000Hrs. Max (60%CL) | |

Ultra Low ESR

Lead-free

RoHS Compliance

ESR 5mΩ



Size List

| Cap. [µF] | [φD×L] | | |
|-----------|-------------------|--------------|--------------|
| | R.V.(S.V.) [M] | 2.5 (2.8) | 4.0 (4.6) |
| 390 | | | 8×11.5 |
| 470 | | | |
| 560 | 8×11.5 | 8×11.5 | |
| 680 | 8×11.5 | | 10×12.5 |
| 820 | 8×11.5 | 10×12.5 | 10×12.5 |
| 1000 | 8×11.5 | | |
| 1200 | | 10×12.5 | |
| 1500 | 10×12.5 | | |

Dimensions



[Unit : mm]

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

● 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 | 560 | RR50E561MDN1□□ | FP-2R5RE561M-R5□□ | 350 | 0.15 | 5 | 6630 | 8 × 11.5 |
| | 680 | RR50E681MDN1□□ | FP-2R5RE681M-R5□□ | 425 | 0.15 | 5 | 6630 | 8 × 11.5 |
| | 820 | RR50E821MDN1□□ | FP-2R5RE821M-R5□□ | 513 | 0.15 | 5 | 6630 | 8 × 11.5 |
| | 1000 | RR50E102MDN1□□ | FP-2R5RE102M-R5□□ | 625 | 0.15 | 5 | 6630 | 8 × 11.5 |
| | 1500 | RR50E152MDN1□□ | FP-2R5RE152M-R5□□ | 938 | 0.15 | 5 | 7220 | 10 × 12.5 |
| 4.0 | 560 | RR50G561MDN1□□ | FP-4R0RE561M-R5□□ | 560 | 0.15 | 5 | 6630 | 8 × 11.5 |
| | 820 | RR50G821MDN1□□ | FP-4R0RE821M-R5□□ | 820 | 0.15 | 5 | 7220 | 10 × 12.5 |
| | 1200 | RR50G122MDN1□□ | FP-4R0RE122M-R5□□ | 1200 | 0.15 | 5 | 7220 | 10 × 12.5 |
| 6.3 | 390 | RR50J391MDN1□□ | FP-6R3RE391M-R5□□ | 614 | 0.15 | 5 | 6630 | 8 × 11.5 |
| | 680 | RR50J681MDN1□□ | FP-6R3RE681M-R5□□ | 1071 | 0.15 | 5 | 7220 | 10 × 12.5 |
| | 820 | RR50J821MDN1□□ | FP-6R3RE821M-R5□□ | 1292 | 0.15 | 5 | 7220 | 10 × 12.5 |

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

● Frequency Characteristics



● Part Number (EX) 4V, 560μF

| | | | | | | | |
|----------|-------------|---------------|-------------------|-----------------------|---------------|--------------|--------------|
| R | R5 | 0G | 561 | M | DN | 1 | |
| Type | Series name | Rated Voltage | Rated Capacitance | Capacitance Tolerance | Configuration | Control code | Lead Forming |

(CG: Cut lead (Bulk)
 KX: φ8, 3.5mm pitch taping
 PX: φ8, 5.0mm pitch taping
 PH: φ10, 5.0mm pitch taping)