

# FPCAP Functional Polymer Aluminum Solid Electrolytic Capacitors

## L8 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.
- Back 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                           |
|-----------------------|-----------------|---|
|                       |                 | L8  |
| Operating Temp. Range |                 | - 55 to + 105°C                           |
| Rated Voltage Range   |                 | 2.5 to 35V <sub>DC</sub>                  |
| Capacitance Range     |                 | 100 to 1500μF                             |
| Capacitance Tolerance |                 | ± 20% (M)                                 |
| Endurance             | Condition       | 105°C 2000/5000Hrs 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

Large Capacitance

Endurance 2000/5000hrs

Low Profile

Lead-free

RoHS Compliance

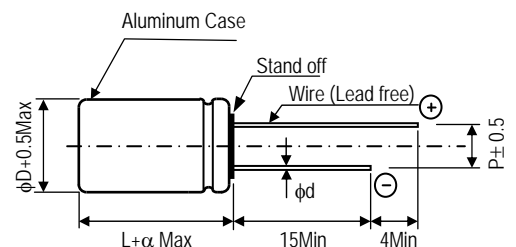
## UPGRADE



### ● Size List

| Cap. [μF] | R.V.(S.V.) [V] |           |           |           |           |  |
|-----------|----------------|-----------|-----------|-----------|-----------|--|
|           | 2.5 (2.8)      | 4.0 (4.6) | 6.3 (7.2) | 16 (18.4) | 35 (40.2) |  |
| 100       |                |           |           | 8×8       | 8×8       |  |
| 180       |                |           |           | 8×8       |           |  |
| 220       |                |           |           | 8×8       |           |  |
| 270       |                |           |           | 8×8       |           |  |
| 330       |                |           |           | 8×8       |           |  |
| 470       |                |           | 8×8       |           |           |  |
| 560       | 8×8            | 8×8       | 8×8       |           |           |  |
| 680       |                |           | 8×8       |           |           |  |
| 820       | 8×8            | 8×8       | 8×8       |           |           |  |
| 1000      | 8×8            |           | 8×8       |           |           |  |
| 1200      | 8×8            |           |           |           |           |  |
| 1500      | 8×8            |           |           |           |           |  |

### ● Dimensions



[Unit : mm]

| φD×L | φd  | P   | α   |
|------|-----|-----|-----|
| 8×8  | 0.6 | 3.5 | 1.0 |

## ● 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                           | RL80E561MDN1□□   | FP-2R5RE561M-L8□□    | 500                           | 0.12         | 6                | 6100                              | 8 × 8              |
|                   | ** 560                        | RL80E561MDNASQ□□ | FP-2R5RE561M-L8□□-5K | 500                           | 0.12         | 6                | 6100                              | 8 × 8              |
|                   | 820                           | RL80E821MDN1□□   | FP-2R5RE821M-L8□□    | 513                           | 0.12         | 6                | 6100                              | 8 × 8              |
|                   | ** 820                        | RL80E821MDNASQ□□ | FP-2R5RE821M-L8□□-5K | 513                           | 0.12         | 6                | 6100                              | 8 × 8              |
|                   | 1000                          | RL80E102MDN1□□   | FP-2R5RE102M-L8□□    | 625                           | 0.12         | 6                | 6100                              | 8 × 8              |
|                   | 1200                          | RL80E122MDN1□□   | FP-2R5RE122M-L8□□    | 750                           | 0.12         | 7                | 6100                              | 8 × 8              |
| 4.0               | 1500                          | RL80E152MDN1□□   | FP-2R5RE152M-L8□□    | 938                           | 0.12         | 7                | 6100                              | 8 × 8              |
|                   | 560                           | RL80G561MDN1□□   | FP-4R0RE561M-L8□□    | 560                           | 0.12         | 6                | 6100                              | 8 × 8              |
|                   | ** 560                        | RL80G561MDNASQ□□ | FP-4R0RE561M-L8□□-5K | 560                           | 0.12         | 6                | 6100                              | 8 × 8              |
| 6.3               | 820                           | RL80G821MDN1□□   | FP-4R0RE821M-L8□□    | 820                           | 0.12         | 6                | 6100                              | 8 × 8              |
|                   | 470                           | RL80J471MDN1□□   | FP-6R3RE471M-L8□□    | 592                           | 0.12         | 8                | 5700                              | 8 × 8              |
|                   | ** 470                        | RL80J471MDNASQ□□ | FP-6R3RE471M-L8□□-5K | 592                           | 0.12         | 8                | 5700                              | 8 × 8              |
|                   | 560                           | RL80J561MDN1□□   | FP-6R3RE561M-L8□□    | 706                           | 0.12         | 8                | 5700                              | 8 × 8              |
|                   | ** 560                        | RL80J561MDNASQ□□ | FP-6R3RE561M-L8□□-5K | 706                           | 0.12         | 8                | 5700                              | 8 × 8              |
|                   | 680                           | RL80J681MDN1□□   | FP-6R3RE681M-L8□□    | 857                           | 0.12         | 8                | 5700                              | 8 × 8              |
|                   | 820                           | RL80J821MDN1□□   | FP-6R3RE821M-L8□□    | 1033                          | 0.12         | 8                | 5700                              | 8 × 8              |
| 16                | 1000                          | RL80J102MDN1□□   | FP-6R3RE102M-L8□□    | 1260                          | 0.12         | 9                | 5700                              | 8 × 8              |
|                   | 100                           | RL81C101MDN1□□   | FP-016RE101M-L8□□    | 320                           | 0.12         | 12               | 5000                              | 8 × 8              |
|                   | 180                           | RL81C181MDN1□□   | FP-016RE181M-L8□□    | 576                           | 0.12         | 12               | 5000                              | 8 × 8              |
|                   | 220                           | RL81C221MDN1□□   | FP-016RE221M-L8□□    | 704                           | 0.12         | 12               | 5000                              | 8 × 8              |
|                   | 270                           | RL81C271MDN1□□   | FP-016RE271M-L8□□    | 864                           | 0.12         | 10               | 5000                              | 8 × 8              |
| 35                | 330                           | RL81C331MDN1□□   | FP-016RE331M-L8□□    | 1056                          | 0.12         | 12               | 5000                              | 8 × 8              |
|                   | 100                           | RL81V101MDN1□□   | FP-035RE101M-L8□□    | 700                           | 0.12         | 25               | 3000                              | 8 × 8              |

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

\*\* Endurance 5000hrs product.

## ● Frequency Characteristics



## ● Part Number (EX) 6.3V, 560μF, 5000hrs (Endurance)

Nichicon P/N



FPCAP P/N

