



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

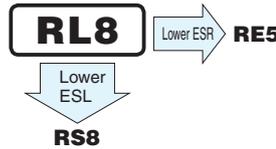


# RL8 Low ESR, Low Profile (φ8)



## FPCAP

- Ultra Low ESR, High ripple current.
- Low Profile(Height 8mm).
- Load life of 2000/5000 hours at 105°C.
- Radial lead type : Lead free flow soldering condition correspondence.
- Compliant to the RoHS directive (2011/65/EU).



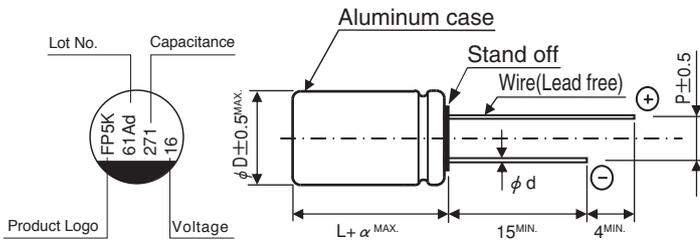
### Specifications

| Item                          | Performance Characteristics  |   |
|-------------------------------|--|---|
| Category Temperature Range    | -55 to +105°C  |   |
| Rated Voltage Range           | 2.5 to 35V   |   |
| Rated Capacitance Range       | 100 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 to the capacitor body.

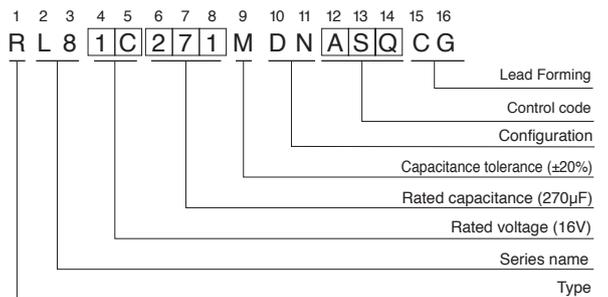
※2 Conditioning : If any doubt arises, measure the leakage current after the voltage treatment of applying DC rated voltage continuously to the capacitor for 120 minutes at 105°C.

### Dimensions



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

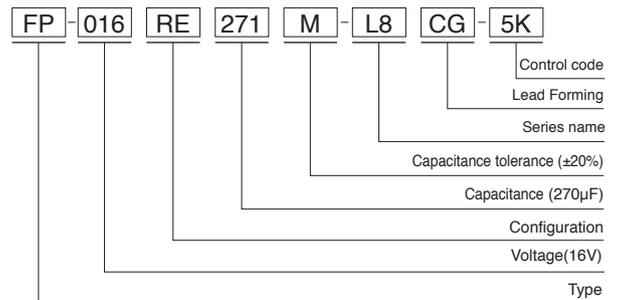
### Type numbering system (Example : 16V 270μF) Nichicon part number



### 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    |

### FPCAP part number



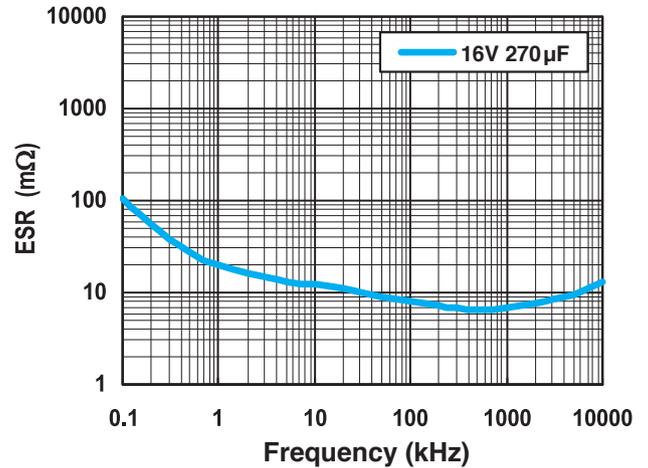
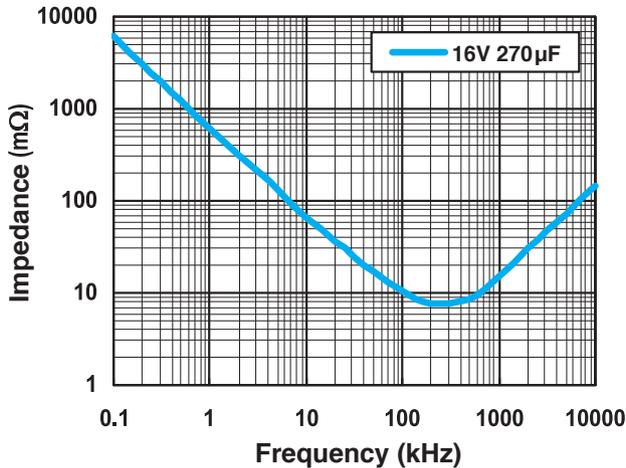
# RL8

## 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               | 560                    | 8×8                 | 0.12  | 500                         | 6                | 6100                          | RL80E561MDN1□□   | FP-2R5RE561M-L8□□    |
|                          |                   | *560                   | 8×8                 | 0.12  | 500                         | 6                | 6100                          | RL80E561MDNASQ□□ | FP-2R5RE561M-L8□□-5K |
|                          |                   | 820                    | 8×8                 | 0.12  | 513                         | 6                | 6100                          | RL80E821MDN1□□   | FP-2R5RE821M-L8□□    |
|                          |                   | *820                   | 8×8                 | 0.12  | 513                         | 6                | 6100                          | RL80E821MDNASQ□□ | FP-2R5RE821M-L8□□-5K |
|                          |                   | 1000                   | 8×8                 | 0.12  | 625                         | 6                | 6100                          | RL80E102MDN1□□   | FP-2R5RE102M-L8□□    |
|                          |                   | 1200                   | 8×8                 | 0.12  | 750                         | 7                | 6100                          | RL80E122MDN1□□   | FP-2R5RE122M-L8□□    |
|                          |                   | 1500                   | 8×8                 | 0.12  | 938                         | 7                | 6100                          | RL80E152MDN1□□   | FP-2R5RE152M-L8□□    |
| 4.0 (0G)                 | 4.6               | 560                    | 8×8                 | 0.12  | 560                         | 6                | 6100                          | RL80G561MDN1□□   | FP-4R0RE561M-L8□□    |
|                          |                   | *560                   | 8×8                 | 0.12  | 560                         | 6                | 6100                          | RL80G561MDNASQ□□ | FP-4R0RE561M-L8□□-5K |
|                          |                   | 820                    | 8×8                 | 0.12  | 820                         | 6                | 6100                          | RL80G821MDN1□□   | FP-4R0RE821M-L8□□    |
| 6.3 (0J)                 | 7.2               | 470                    | 8×8                 | 0.12  | 592                         | 8                | 5700                          | RL80J471MDN1□□   | FP-6R3RE471M-L8□□    |
|                          |                   | *470                   | 8×8                 | 0.12  | 592                         | 8                | 5700                          | RL80J471MDNASQ□□ | FP-6R3RE471M-L8□□-5K |
|                          |                   | 560                    | 8×8                 | 0.12  | 706                         | 8                | 5700                          | RL80J561MDN1□□   | FP-6R3RE561M-L8□□    |
|                          |                   | *560                   | 8×8                 | 0.12  | 706                         | 8                | 5700                          | RL80J561MDNASQ□□ | FP-6R3RE561M-L8□□-5K |
|                          |                   | 680                    | 8×8                 | 0.12  | 857                         | 8                | 5700                          | RL80J681MDN1□□   | FP-6R3RE681M-L8□□    |
|                          |                   | 820                    | 8×8                 | 0.12  | 1033                        | 8                | 5700                          | RL80J821MDN1□□   | FP-6R3RE821M-L8□□    |
|                          |                   | 1000                   | 8×8                 | 0.12  | 1260                        | 9                | 5700                          | RL80J102MDN1□□   | FP-6R3RE102M-L8□□    |
| 16 (1C)                  | 18.4              | 100                    | 8×8                 | 0.12  | 320                         | 12               | 5000                          | RL81C101MDN1□□   | FP-016RE101M-L8□□    |
|                          |                   | 180                    | 8×8                 | 0.12  | 576                         | 12               | 5000                          | RL81C181MDN1□□   | FP-016RE181M-L8□□    |
|                          |                   | 220                    | 8×8                 | 0.12  | 704                         | 12               | 5000                          | RL81C221MDN1□□   | FP-016RE221M-L8□□    |
|                          |                   | 270                    | 8×8                 | 0.12  | 864                         | 10               | 5000                          | RL81C271MDN1□□   | FP-016RE271M-L8□□    |
|                          |                   | *270                   | 8×8                 | 0.12  | 864                         | 10               | 5000                          | RL81C271MDNASQ□□ | FP-016RE271M-L8□□-5K |
|                          |                   | 330                    | 8×8                 | 0.12  | 1056                        | 12               | 5000                          | RL81C331MDN1□□   | FP-016RE331M-L8□□    |
| 35 (1V)                  | 40.2              | 100                    | 8×8                 | 0.12  | 700                         | 25               | 3000                          | RL81V101MDN1□□   | FP-035RE101M-L8□□    |

\* : Load life 5000hours.

## Frequency Characteristics (The frequency characteristics are typical and not a guaranteed value.)



- Taping specifications are given in page 26, 27.
- Please refer to page 3 for the minimum order quantity.