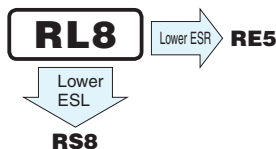


## RL8 Low ESR, Low Profile (φ8)



**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).



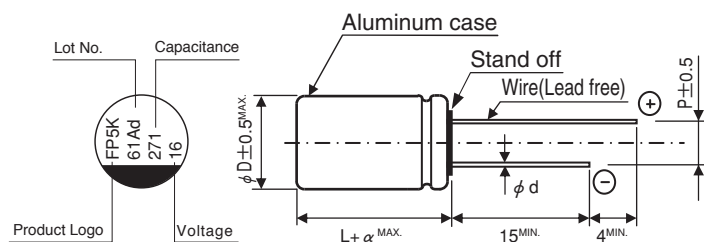
### Specifications

| 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.

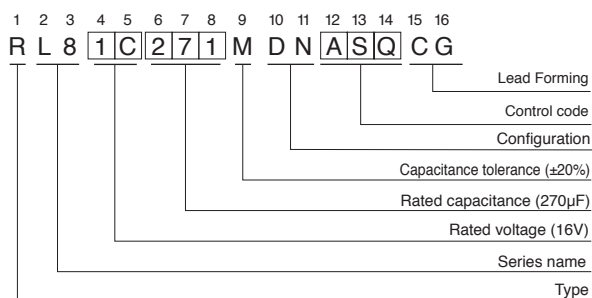
※2 Conditioning : If any doubt arises, measure the leakage current after the voltage treatment of applying DC rated voltage continuously to the capacitor for 120 minutes at 105°C.

### Dimensions



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

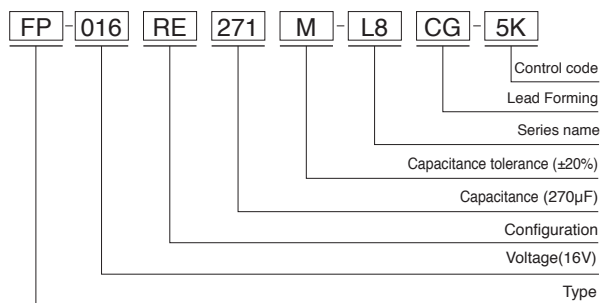
Type numbering system (Example : 16V 270μF)  
Nichicon part number



### 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



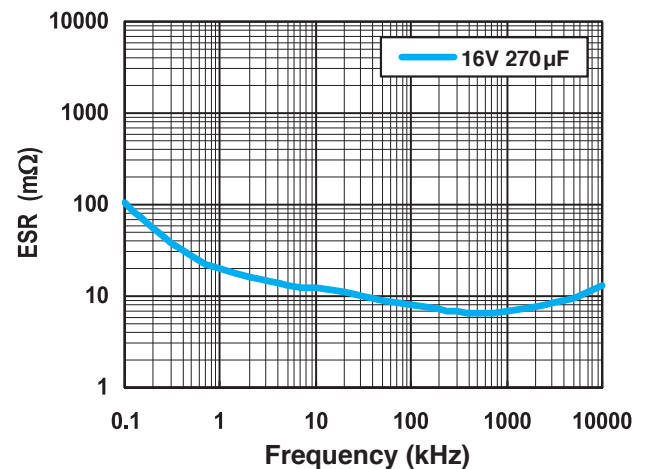
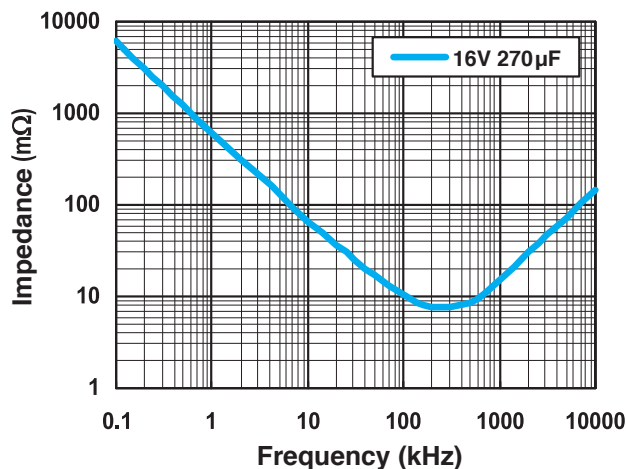
## RL8

## ■ Standard Ratings

| Rated Voltage (V)<br>(code) | Surge Voltage (V) | Rated Capacitance (μF) | Case Size<br>φD×L (mm) | tan δ | Leakage Current (μA, 2min.) | ESR (mΩ, 100kHz) | Rated Ripple Current (mA rms) | NICHICON         | FPCAP                |
|-----------------------------|-------------------|------------------------|------------------------|-------|-----------------------------|------------------|-------------------------------|------------------|----------------------|
| 2.5<br>(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<br>(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<br>(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<br>(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<br>(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.