

**RS8** Low ESR / ESL, Low Profile ( $\phi 6.3$ )



**FPCAP** *Expanded*

- Low ESR/ESL, 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 16V   |   |
| Rated Capacitance Range               | 100 to 1200 $\mu$ F  |   |
| Capacitance Tolerance                 | $\pm 20\%$ at 120Hz, 20°C  |   |
| Tangent of loss angle (tan $\delta$ ) | 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 $\pm 20\%$ of initial value before test    |
|                                       | tan $\delta$   | 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 |

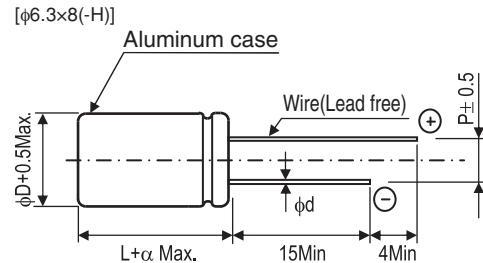
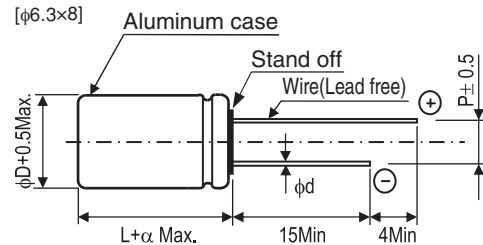
※1 ESR should be measured at both of the terminal ends closest to the capacitor body.

※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.

■ Size List

[ $\phi D \times L$  (mm)]

| Cap [ $\mu$ F] | R.V.(V) | 2.5   | 4.0   | 6.3   | 16    |
|----------------|---------|-------|-------|-------|-------|
|                | S.V.(V) | 2.8   | 4.6   | 7.2   | 18.4  |
| 100            |         |       |       |       | 6.3x8 |
| 270            |         |       |       |       | 6.3x8 |
| 330            |         | 6.3x8 |       | 6.3x8 |       |
| 470            |         | 6.3x8 |       | 6.3x8 |       |
| 560            |         | 6.3x8 | 6.3x8 | 6.3x8 |       |
| 680            |         |       |       | 6.3x8 |       |
| 820            |         | 6.3x8 |       |       |       |
| 1200           |         | 6.3x8 |       |       |       |



| $\phi D \times L$ | $\phi d$ | P   | $\alpha$ |
|-------------------|----------|-----|----------|
| 6.3x8             | 0.6      | 2.5 | 1.0      |

(mm)

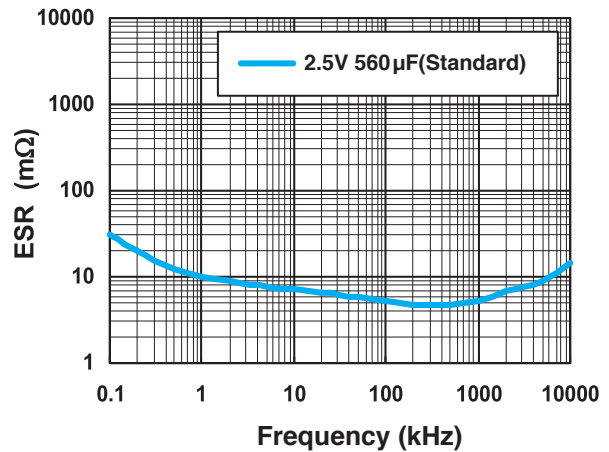
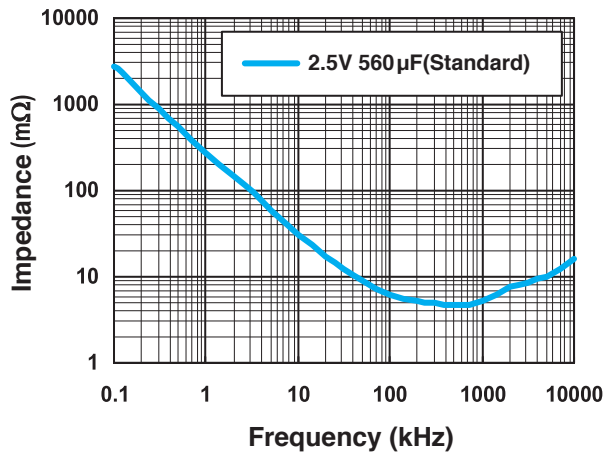
# RS8

## 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) | ESL (Typ.) (nH, 40MHz) | Rated Ripple Current (mA rms) | NICHICON         | FPCAP                |
|--------------------------|-------------------|------------------------|---------------------|-------|-----------------------------|------------------|------------------------|-------------------------------|------------------|----------------------|
| 2.5 (0E)                 | 2.8               | 330                    | 6.3×8               | 0.10  | 500                         | 7                | 2                      | 5600                          | RS80E331MDN1□□   | FP-2R5RE331M-S8□□    |
|                          |                   | ※330                   | 6.3×8               | 0.10  | 500                         | 7                | 2                      | 5600                          | RS80E331MDNASQ□□ | FP-2R5RE331M-S8□□-5K |
|                          |                   | 470                    | 6.3×8               | 0.10  | 500                         | 7                | 2                      | 5600                          | RS80E471MDN1□□   | FP-2R5RE471M-S8□□    |
|                          |                   | ※470                   | 6.3×8               | 0.10  | 500                         | 7                | 2                      | 5600                          | RS80E471MDNASQ□□ | FP-2R5RE471M-S8□□-5K |
|                          |                   | 560                    | 6.3×8               | 0.10  | 500                         | 7                | 2                      | 5600                          | RS80E561MDN1□□   | FP-2R5RE561M-S8□□    |
|                          |                   | ※560                   | 6.3×8               | 0.10  | 500                         | 7                | 2                      | 5600                          | RS80E561MDNASQ□□ | FP-2R5RE561M-S8□□-5K |
|                          |                   | 820                    | 6.3×8               | 0.10  | 512                         | 7                | 2                      | 5600                          | RS80E821MDN1□□   | FP-2R5RE821M-S8□□    |
|                          |                   | ※820                   | 6.3×8               | 0.10  | 512                         | 7                | 2                      | 5600                          | RS80E821MDNASQ□□ | FP-2R5RE821M-S8□□-5K |
| 4.0 (0G)                 | 4.6               | 560                    | 6.3×8               | 0.10  | 560                         | 7                | 2                      | 5000                          | RS80G561MDN1□□   | FP-4R0RE561M-S8□□    |
|                          |                   | ※560                   | 6.3×8               | 0.10  | 560                         | 7                | 2                      | 5000                          | RS80G561MDNASQ□□ | FP-4R0RE561M-S8□□-5K |
| 6.3 (0J)                 | 7.2               | 330                    | 6.3×8               | 0.10  | 519                         | 8                | 2                      | 5000                          | RS80J331MDN1□□   | FP-6R3RE331M-S8□□    |
|                          |                   | ※330                   | 6.3×8               | 0.10  | 519                         | 8                | 2                      | 5000                          | RS80J331MDNASQ□□ | FP-6R3RE331M-S8□□-5K |
|                          |                   | 470                    | 6.3×8               | 0.10  | 740                         | 8                | 2                      | 5000                          | RS80J471MDN1□□   | FP-6R3RE471M-S8□□    |
|                          |                   | ※470                   | 6.3×8               | 0.10  | 740                         | 8                | 2                      | 5000                          | RS80J471MDNASQ□□ | FP-6R3RE471M-S8□□-5K |
|                          |                   | 560                    | 6.3×8               | 0.10  | 882                         | 8                | 2                      | 5000                          | RS80J561MDN1□□   | FP-6R3RE561M-S8□□    |
|                          |                   | ※560                   | 6.3×8               | 0.10  | 882                         | 8                | 2                      | 5000                          | RS80J561MDNASQ□□ | FP-6R3RE561M-S8□□-5K |
| 16 (1C)                  | 18.4              | 100                    | 6.3×8               | 0.10  | 500                         | 14               | 2                      | 3800                          | RS81C101MDN1□□   | FP-016RE101M-S8□□    |
|                          |                   | 270                    | 6.3×8               | 0.10  | 1296                        | 15               | 2                      | 3800                          | RS81C271MDN1□□   | FP-016RE271M-S8□□    |
|                          |                   | ※270                   | 6.3×8               | 0.10  | 1296                        | 15               | 2                      | 3800                          | RS81C271MDNASQ□□ | FP-016RE271M-S8□□-5K |

※ : 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.