

**RS8** Low ESR / ESL, Low Profile (φ6.3)



**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, (EU)2015/863).



■ Specifications

| Item                          | Performance Characteristics  |   |
|-------------------------------|--|---|
| Category Temperature Range    | -55 to +105°C  |   |
| Rated Voltage Range           | 2.5 to 16V   |   |
| Rated Capacitance Range       | 100 to 1200μF  |   |
| 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   |
|-------|-----|-----|-----|
| 6.3×8 | 0.6 | 2.5 | 1.0 |

● 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    |

Type numbering system (Example : 6.3V 560μF)  
Nichicon part number



FPCAP part number



# RS8

## ■ Dimensions

| Rated Voltage (V) (code) | Surge Voltage (V) | Rated Capacitance (μF) | Case Size φD×L (mm) | tan δ | Leakage Current (μA, 2min.) | ESR (mΩ) (20°C/100kHz) | ESL (Typ.) (nH, 40MHz) | Rated Ripple Current (mA rms) (105°C/100kHz) | 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   | RS80E331MCN1□□   | FP-2R5RE331M-S8□□-H   |
|                          |                   | *330                   | 6.3×8               | 0.10  | 500                         | 7                      | 2                      | 5600   | RS80E331MDNASQ□□ | FP-2R5RE331M-S8□□-5K  |
|                          |                   | *330                   | 6.3×8               | 0.10  | 500                         | 7                      | 2                      | 5600   | RS80E331MCNASQ□□ | FP-2R5RE331M-S8□□-5KH |
|                          |                   | 470                    | 6.3×8               | 0.10  | 500                         | 7                      | 2                      | 5600   | RS80E471MDN1□□   | FP-2R5RE471M-S8□□     |
|                          |                   | 470                    | 6.3×8               | 0.10  | 500                         | 7                      | 2                      | 5600   | RS80E471MCN1□□   | FP-2R5RE471M-S8□□-H   |
|                          |                   | *470                   | 6.3×8               | 0.10  | 500                         | 7                      | 2                      | 5600   | RS80E471MDNASQ□□ | FP-2R5RE471M-S8□□-5K  |
|                          |                   | *470                   | 6.3×8               | 0.10  | 500                         | 7                      | 2                      | 5600   | RS80E471MCNASQ□□ | FP-2R5RE471M-S8□□-5KH |
|                          |                   | 560                    | 6.3×8               | 0.10  | 500                         | 7                      | 2                      | 5600   | RS80E561MDN1□□   | FP-2R5RE561M-S8□□     |
|                          |                   | 560                    | 6.3×8               | 0.10  | 500                         | 7                      | 2                      | 5600   | RS80E561MCN1□□   | FP-2R5RE561M-S8□□-H   |
|                          |                   | *560                   | 6.3×8               | 0.10  | 500                         | 7                      | 2                      | 5600   | RS80E561MDNASQ□□ | FP-2R5RE561M-S8□□-5K  |
|                          |                   | *560                   | 6.3×8               | 0.10  | 500                         | 7                      | 2                      | 5600   | RS80E561MCNASQ□□ | FP-2R5RE561M-S8□□-5KH |
|                          |                   | 820                    | 6.3×8               | 0.10  | 512                         | 7                      | 2                      | 5600   | RS80E821MDN1□□   | FP-2R5RE821M-S8□□     |
|                          |                   | 820                    | 6.3×8               | 0.10  | 512                         | 7                      | 2                      | 5600   | RS80E821MCN1□□   | FP-2R5RE821M-S8□□-H   |
|                          |                   | *820                   | 6.3×8               | 0.10  | 512                         | 7                      | 2                      | 5600   | RS80E821MDNASQ□□ | FP-2R5RE821M-S8□□-5K  |
|                          |                   | *820                   | 6.3×8               | 0.10  | 512                         | 7                      | 2                      | 5600   | RS80E821MCNASQ□□ | FP-2R5RE821M-S8□□-5KH |
| 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   | RS80G561MCN1□□   | FP-4R0RE561M-S8□□-H   |
|                          |                   | *560                   | 6.3×8               | 0.10  | 560                         | 7                      | 2                      | 5000   | RS80G561MDNASQ□□ | FP-4R0RE561M-S8□□-5K  |
|                          |                   | *560                   | 6.3×8               | 0.10  | 560                         | 7                      | 2                      | 5000   | RS80G561MCNASQ□□ | FP-4R0RE561M-S8□□-5KH |
| 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   | RS80J331MCN1□□   | FP-6R3RE331M-S8□□-H   |
|                          |                   | *330                   | 6.3×8               | 0.10  | 519                         | 8                      | 2                      | 5000   | RS80J331MDNASQ□□ | FP-6R3RE331M-S8□□-5K  |
|                          |                   | *330                   | 6.3×8               | 0.10  | 519                         | 8                      | 2                      | 5000   | RS80J331MCNASQ□□ | FP-6R3RE331M-S8□□-5KH |
|                          |                   | 470                    | 6.3×8               | 0.10  | 740                         | 8                      | 2                      | 5000   | RS80J471MDN1□□   | FP-6R3RE471M-S8□□     |
|                          |                   | 470                    | 6.3×8               | 0.10  | 740                         | 8                      | 2                      | 5000   | RS80J471MCN1□□   | FP-6R3RE471M-S8□□-H   |
|                          |                   | *470                   | 6.3×8               | 0.10  | 740                         | 8                      | 2                      | 5000   | RS80J471MDNASQ□□ | FP-6R3RE471M-S8□□-5K  |
|                          |                   | *470                   | 6.3×8               | 0.10  | 740                         | 8                      | 2                      | 5000   | RS80J471MCNASQ□□ | FP-6R3RE471M-S8□□-5KH |
|                          |                   | 560                    | 6.3×8               | 0.10  | 882                         | 8                      | 2                      | 5000   | RS80J561MDN1□□   | FP-6R3RE561M-S8□□     |
|                          |                   | 560                    | 6.3×8               | 0.10  | 882                         | 8                      | 2                      | 5000   | RS80J561MCN1□□   | FP-6R3RE561M-S8□□-H   |
|                          |                   | *560                   | 6.3×8               | 0.10  | 882                         | 8                      | 2                      | 5000   | RS80J561MDNASQ□□ | FP-6R3RE561M-S8□□-5K  |
|                          |                   | *560                   | 6.3×8               | 0.10  | 882                         | 8                      | 2                      | 5000   | RS80J561MCNASQ□□ | FP-6R3RE561M-S8□□-5KH |
|                          |                   | 680                    | 6.3×8               | 0.10  | 1071                        | 8                      | 2                      | 4700   | RS80J681MDN1□□   | FP-6R3RE681M-S8□□     |
|                          |                   | 680                    | 6.3×8               | 0.10  | 1071                        | 8                      | 2                      | 4700   | RS80J681MCN1□□   | FP-6R3RE681M-S8□□-H   |
|                          |                   | 820                    | 6.3×8               | 0.10  | 1292                        | 8                      | 2                      | 4700   | RS80J821MDN1□□   | FP-6R3RE821M-S8□□     |
|                          |                   | 820                    | 6.3×8               | 0.10  | 1292                        | 8                      | 2                      | 4700   | RS80J821MCN1□□   | FP-6R3RE821M-S8□□-H   |
| 16 (1C)                  | 18.4              | 100                    | 6.3×8               | 0.10  | 500                         | 14                     | 2                      | 3800   | RS81C101MDN1□□   | FP-016RE101M-S8□□     |
|                          |                   | 100                    | 6.3×8               | 0.10  | 500                         | 14                     | 2                      | 3800   | RS81C101MCN1□□   | FP-016RE101M-S8□□-H   |
|                          |                   | 270                    | 6.3×8               | 0.10  | 1296                        | 15                     | 2                      | 3800   | RS81C271MDN1□□   | FP-016RE271M-S8□□     |
|                          |                   | 270                    | 6.3×8               | 0.10  | 1296                        | 15                     | 2                      | 3800   | RS81C271MCN1□□   | FP-016RE271M-S8□□-H   |
|                          |                   | *270                   | 6.3×8               | 0.10  | 1296                        | 15                     | 2                      | 3800   | RS81C271MDNASQ□□ | FP-016RE271M-S8□□-5K  |
|                          |                   | *270                   | 6.3×8               | 0.10  | 1296                        | 15                     | 2                      | 3800   | RS81C271MCNASQ□□ | FP-016RE271M-S8□□-5KH |

\* : 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.