

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.