

**RDE** High Capacitance,  
Load life of 5000 hours at 105°C



For SMD

High Ripple  
Current

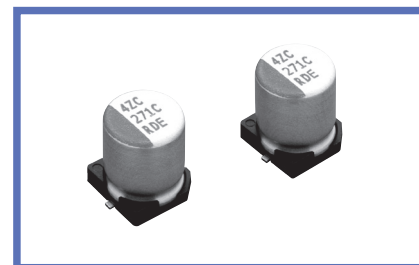
Low Impedance

For High  
Frequency

**FPCAP**

**NEW**

- Low ESR, High ripple current.
- Load life of 5000 hours at 105°C.
- SMD type : Lead free reflow soldering condition at 260°C peak correspondence.
- Compliant to the RoHS directive (2011/65/EU,(EU)2015/863).



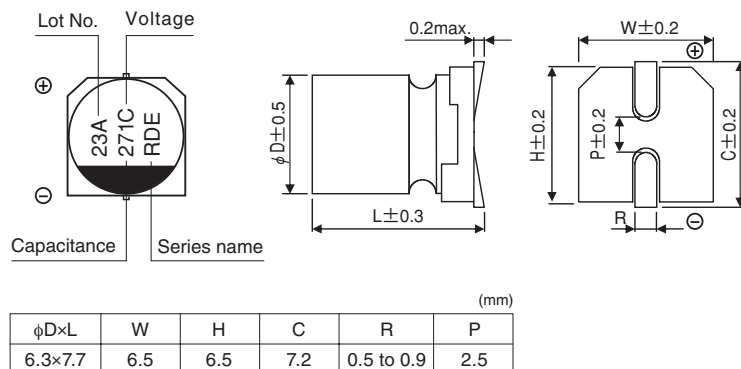
## Specifications

| Item                          | Performance Characteristics                                                                      |                                               |
|-------------------------------|--------------------------------------------------------------------------------------------------|-----------------------------------------------|
| Category Temperature Range    | -55 to +105°C                                                                                    |                                               |
| Rated Voltage Range           | 2.5 to 16V                                                                                       |                                               |
| Rated Capacitance Range       | 270 to 820μF                                                                                     |                                               |
| 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, 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 specified value     |

※ 1 ESR should be measured at both of the terminal ends closest where the terminals protrude through the plastic platform.

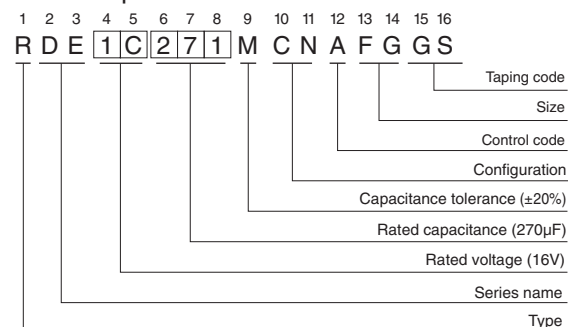
※ 2 Conditioning : If any doubt arises, measure the leakage current after the voltage treatment of applying DC rated voltage continuously to the capacitor for 120 minutes at 105°C.

## Dimensions



Type numbering system (Example : 16V 270μF)

Nichicon part number



## Frequency coefficient of rated ripple current

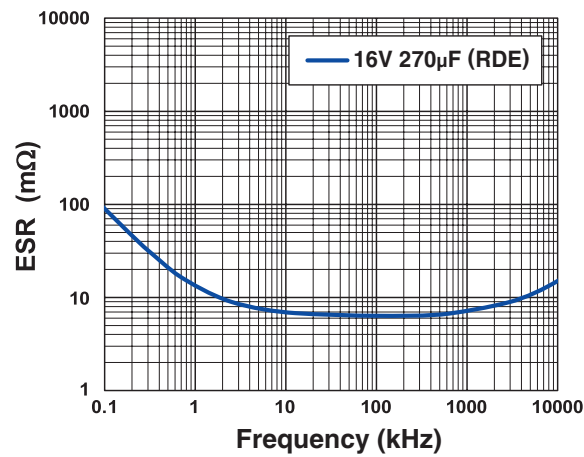
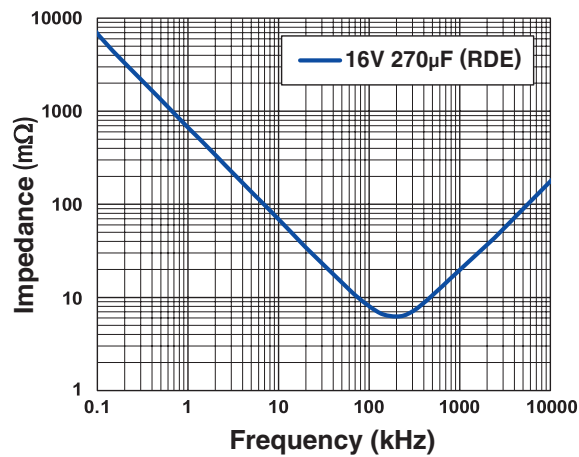
| Frequency   | 120 Hz | 1 kHz | 10 kHz | 100 kHz | 300 kHz or more |
|-------------|--------|-------|--------|---------|-----------------|
| Coefficient | 0.10   | 0.45  | 0.50   | 1.00    | 1.00            |

RDE

■ Dimensions

| Rated Voltage<br>(V)<br>(code) | Surge<br>Voltage<br>(V) | Rated<br>Capacitance<br>(μF) | Case Size<br>φD×L (mm) | tan δ | Leakage Current<br>(μA)<br>( at 20°C after<br>2 minutes ) | ESR<br>(mΩ)<br>(20°C /100kHz) | Rated Ripple<br>Current<br>(mA <sub>rms</sub> )<br>(105°C /100kHz) | NICHICON         |
|--------------------------------|-------------------------|------------------------------|------------------------|-------|-----------------------------------------------------------|-------------------------------|--------------------------------------------------------------------|------------------|
| 2.5<br>(0E)                    | 2.8                     | 820                          | 6.3×7.7                | 0.12  | 700                                                       | 7                             | 5000                                                               | RDE0E821MCNAFGGS |
| 6.3<br>(0J)                    | 7.2                     | 560                          | 6.3×7.7                | 0.12  | 1058                                                      | 8                             | 5000                                                               | RDE0J561MCNAFGGS |
| 16<br>(1C)                     | 18.4                    | 270                          | 6.3×7.7                | 0.12  | 864                                                       | 10                            | 5080                                                               | RDE1C271MCNAFGGS |

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



• For taping specifications, recommended land size/soldering by reflow and minimum order quantity, please refer to the Guidelines for Aluminum Electrolytic Capacitors.