



# NESSCAP® Ultracapacitor Products

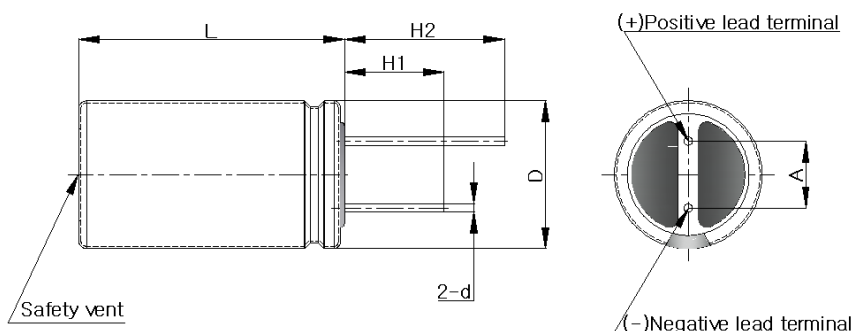
## Features

EDLC(Electric Double Layer Capacitor)  
Two lead terminals and radial design  
Compliant with RoHS requirement ( Ex : Cd, Pb )



## Dimension

Dimension in mm (not to scale)



| Capacitance | Dimension (mm) |             |             |             |              |             |
|-------------|----------------|-------------|-------------|-------------|--------------|-------------|
|             | D<br>(+0.5)    | L<br>(+1.5) | H1<br>(min) | H2<br>(min) | d<br>(±0.05) | A<br>(±0.5) |
| 3F          | 8              | 20          | 15          | 19          | 0.6          | 3.5         |
| 5F          | 10             | 20          | 15          | 19          | 0.6          | 5.0         |
| 6F          | 8              | 30          | 15          | 19          | 0.6          | 3.5         |
| 10F         | 10             | 30          | 15          | 19          | 0.6          | 5.0         |
| 25F         | 16             | 25          | 15          | 19          | 0.8          | 7.5         |
| 50F         | 18             | 40          | 15          | 19          | 0.8          | 7.5         |

## Product & Spec.

| Rated Capacitance | Internal Resistance (mΩ) |      | Max. Current (A)                          | Leakage Current (mA) | Stored Energy (Wh) | Specific Energy (Wh/kg) | Weight (g) | Part Number        |
|-------------------|--------------------------|------|-------------------------------------------|----------------------|--------------------|-------------------------|------------|--------------------|
|                   | AC(1kHz)                 | DC   | 1 sec discharge rate to 1/2V <sub>R</sub> | 72hours, 25°C        | at V <sub>R</sub>  | Gravimetric             |            |                    |
| 3F                | < 61                     | < 79 | 3.3                                       | 0.005                | 0.003              | 2.00                    | 1.5        | ESHSR-0003C0-002R7 |
| 5F                | < 29                     | < 38 | 5.7                                       | 0.008                | 0.005              | 2.17                    | 2.3        | ESHSR-0005C0-002R7 |
| 6F                | < 26                     | < 34 | 6.7                                       | 0.017                | 0.006              | 2.61                    | 2.3        | ESHSR-0006C0-002R7 |
| 10F               | < 26                     | < 34 | 10.1                                      | 0.023                | 0.010              | 3.13                    | 3.2        | ESHSR-0010C0-002R7 |
| 25F               | < 21                     | < 27 | 20.1                                      | 0.049                | 0.025              | 3.85                    | 6.5        | ESHSR-0025C0-002R7 |
| 50F               | < 14                     | < 18 | 35.5                                      | 0.073                | 0.051              | 4.51                    | 11.3       | ESHSR-0050C0-002R7 |

|                                     |                |                                                                                                                                                                                                     |
|-------------------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rated Voltage, V <sub>R</sub>       | 2.7 V          |                                                                                                                                                                                                     |
| Surge Voltage                       | 2.85 V         |                                                                                                                                                                                                     |
| Capacitance Tolerance               | -10% / +20%    |                                                                                                                                                                                                     |
| Operating Temperature Range         | -40 ~ 65 °C    | ΔC   < 5% and ΔESR < 0.5 times of initially measured value at 25°C, respectively                                                                                                                    |
| Storage Temperature Range           | -40 ~ 70 °C    |                                                                                                                                                                                                     |
| Life Time at RT <sup>(1)</sup>      | 10 years       | (1)   ΔC   < 30% and ΔESR < 1 times of initially specified value , respectively and LC < specified value<br>(2) Cycle : between rated voltage and half rated voltage under constant current at 25°C |
| Cycle Life (25°C) <sup>(1)(2)</sup> | 500,000 cycles |                                                                                                                                                                                                     |

\* Life time is provisional value

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