

## Radial Lead Type

# OS-CON

Series : **SEPC**



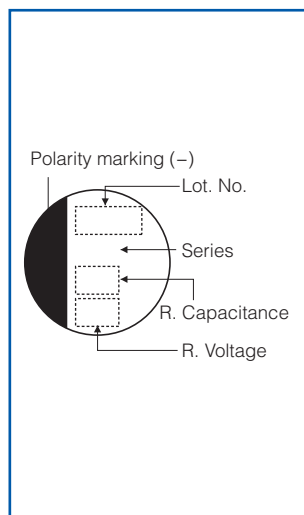
### Features

- Super low ESR (5 mΩ to 24 mΩ)
- Large capacitance (2700 μF max.)
- RoHS compliance, Halogen free

### Specifications

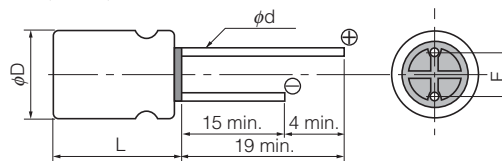
| Size code                    | B9   | C55   | C6         | C9         | E7          | E9          | E12        | E13        | F13         |
|------------------------------|--|---|------------|------------|-------------|-------------|------------|------------|-------------|
| Category temperature range   | -55 °C to +105 °C                                |   |            |            |             |             |            |            |             |
| Rated voltage range (V.DC)   | 2.5  | 6.3   | 2.5 to 16  |            | 6.3 to 16   | 2.5 to 16   | 16         | 2.5 to 6.3 | 2.5 to 16   |
| Rated capacitance range (μF) | 100 to 560                                       | 220   | 100 to 560 | 100 to 820 | 150 to 1000 | 180 to 1000 | 180 to 270 | 470 to 820 | 470 to 2700 |
| Capacitance tolerance        | ±20 % (120 Hz / + 20 °C)                         |   |            |            |             |             |            |            |             |
| Leakage current              | Please see the attached characteristics list     |   |            |            |             |             |            |            |             |
| Dissipation factor (tan δ)   | Please see the attached characteristics list     |   |            |            |             |             |            |            |             |
| Endurance                    | +105 °C, 5000 h, rated voltage applied           |   |            |            |             |             |            |            |             |
|                              | Capacitance change                               | Within ±20 % of the initial value                   |            |            |             |             |            |            |             |
|                              | tan δ  | ≤ 150 % of the initial limit                        |            |            |             |             |            |            |             |
|                              | DC leakage current                               | Within the initial limit                            |            |            |             |             |            |            |             |
| Damp heat (Steady State)     | +60 °C, 90 % to 95 %, 1000 h, No-applied voltage |   |            |            |             |             |            |            |             |
|                              | Capacitance change                               | Within ±20 % of the initial value                   |            |            |             |             |            |            |             |
|                              | tan δ  | ≤ 150 % of the initial limit                        |            |            |             |             |            |            |             |
|                              | DC leakage current                               | Within the initial limit (after voltage processing) |            |            |             |             |            |            |             |

### Marking

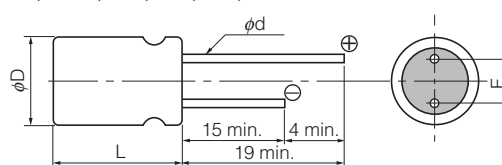


### Dimensions (not to scale)

E12, E13, F13 Size



B9, C55, C6, C9, E7, E9 Size



B9, C55, C6, C9, E7, E9 size flat rubber is used.

\* Externals of figure are the reference.

| Size code | Unit : mm |        |       |         |
|-----------|-----------|--------|-------|---------|
|           | φD±0.5    | L max. | F±0.5 | φd±0.05 |
| B9        | 5.0       | 9.0    | 2.0   | 0.6     |
| C55       | 6.3       | 5.5    | 2.5   | 0.45    |
| C6        | 6.3       | 6.0    | 2.5   | 0.45 *1 |
| C9        | 6.3       | 9.0    | 2.5   | 0.6     |
| E7        | 8.0       | 7.0    | 3.5   | 0.6 *2  |
| E9        | 8.0       | 9.0    | 3.5   | 0.6     |
| E12       | 8.0       | 12.0   | 3.5   | 0.6     |
| E13       | 8.0       | 13.0   | 3.5   | 0.6     |
| F13       | 10.0      | 13.0   | 5.0   | 0.6     |

\*1 2SEPC390M, 2SEPC560M : 0.5±0.05

\*2 16SEPC150MD, 10SEPC270M : 0.45±0.05

## Characteristics list

| Series | Rated voltage (V.DC) | Rated capacitance (μF) | Case size (mm) |      | Size code | Specifications                           |                             |                     |                       | Part number |
|--------|----------------------|------------------------|----------------|------|-----------|--|-----------------------------|---------------------|-----------------------|-------------|
|        |                      |                        | φD             | L    |           | Ripple* <sup>1</sup> current (mA r.m.s.) | ESR* <sup>2</sup> (mΩ max.) | tan δ* <sup>3</sup> | LC* <sup>4</sup> (μA) |             |
| SEPC   | 2.5                  | 100                    | 5.0            | 9.0  | B9        | 4180                                     | 7                           | 0.10                | 500                   | 2SEPC100MZ  |
|        |                      | 300                    | 5.0            | 9.0  |           | 4180                                     | 7                           | 0.10                | 500                   | 2SEPC330MZ  |
|        |                      | 390                    | 6.3            | 6.0  | C6        | 3900                                     | 10                          | 0.12                | 500                   | 2SEPC390M   |
|        |                      | 470                    | 5.0            | 9.0  | B9        | 4180                                     | 7                           | 0.10                | 500                   | 2SEPC470MZ  |
|        |                      | 560                    | 5.0            | 9.0  |           | 4180                                     | 7                           | 0.10                | 500                   | 2SEPC560MZ  |
|        |                      |                        | 6.3            | 6.0  | C6        | 3900                                     | 10                          | 0.12                | 500                   | 2SEPC560M   |
|        |                      |                        | 6.3            | 9.0  | C9        | 5600                                     | 7                           | 0.10                | 500                   | 2SEPC560MW  |
|        |                      | 820                    | 8.0            | 9.0  | E9        | 4700                                     | 8                           | 0.10                | 280                   | 2SEPC560MX  |
|        |                      |                        | 6.3            | 9.0  | C9        | 5600                                     | 7                           | 0.10                | 500                   | 2SEPC820MW  |
|        |                      |                        | 8.0            | 7.0  | E7        | 5300                                     | 8                           | 0.10                | 500                   | 2SEPC820MD  |
|        |                      |                        | 8.0            | 9.0  | E9        | 6100                                     | 7                           | 0.10                | 500                   | 2SEPC820MX  |
|        |                      |                        | 8.0            | 9.0  |           | 7200                                     | 5                           | 0.10                | 500                   | 2SEPC820MY  |
|        |                      | 8.0                    | 13.0           | E13  | 6100      | 7  | 0.10                        | 500                 | 2R5SEPC820M           |             |
|        | 1000                 | 8.0                    | 9.0            | E9   | 6100      | 7  | 0.10                        | 500                 | 2SEPC1000MX           |             |
|        | 2700                 | 10.0                   | 13.0           | F13  | 5560      | 10                                       | 0.10                        | 1350                | 2SEPC2700M            |             |
|        | 4.0                  | 560                    | 6.3            | 9.0  | C9        | 5600                                     | 7                           | 0.10                | 500                   | 4SEPC560MW  |
|        |                      |                        | 8.0            | 9.0  | E9        | 6100                                     | 7                           | 0.10                | 500                   | 4SEPC560MX  |
|        |                      |                        | 8.0            | 13.0 | E13       | 6100                                     | 7                           | 0.10                | 500                   | 4SEPC560M   |
|        |                      | 680                    | 8.0            | 13.0 |           | 6100                                     | 7                           | 0.10                | 544                   | 4SEPC680M   |
|        |                      | 820                    | 10.0           | 13.0 | F13       | 6640                                     | 7                           | 0.10                | 656                   | 4SEPC820M   |
|        | 6.3                  | 220                    | 6.3            | 5.5  | C55       | 2980                                     | 18                          | 0.12                | 280                   | 6SEPC220M   |
|        |                      | 470                    | 6.3            | 9.0  | C9        | 5600                                     | 7                           | 0.10                | 592                   | 6SEPC470MW  |
|        |                      |                        | 8.0            | 9.0  | E9        | 5700                                     | 8                           | 0.10                | 592                   | 6SEPC470MX  |
|        |                      |                        | 8.0            | 13.0 | E13       | 5700                                     | 8                           | 0.10                | 592                   | 6SEPC470M   |
|        |                      | 560                    | 6.3            | 9.0  | C9        | 5600                                     | 7                           | 0.10                | 705                   | 6SEPC560MW  |
|        |                      |                        | 8.0            | 9.0  | E9        | 6100                                     | 7                           | 0.10                | 705                   | 6SEPC560MX  |
|        |                      | 680                    | 10.0           | 13.0 | E13       | 6640                                     | 7                           | 0.10                | 857                   | 6SEPC680M   |
|        |                      | 1000                   | 8.0            | 7.0  | E7        | 3530                                     | 18                          | 0.10                | 1260                  | 6SEPC1000MD |
|        | 1500                 | 10.0                   | 13.0           | F13  | 5560      | 10                                       | 0.10                        | 1890                | 6SEPC1500M            |             |
|        | 10                   | 270                    | 8.0            | 7.0  | E7        | 3220                                     | 22                          | 0.12                | 500                   | 10SEPC270MD |
|        | 16                   | 100                    | 6.3            | 6.0  | C6        | 2490                                     | 24                          | 0.10                | 320                   | 16SEPC100M  |
|        |                      |                        | 6.3            | 9.0  | C9        | 4680                                     | 10                          | 0.10                | 500                   | 16SEPC100MW |
|        |                      | 150                    | 8.0            | 7.0  | E7        | 3220                                     | 22                          | 0.12                | 500                   | 16SEPC150MD |
|        |                      | 180                    | 8.0            | 9.0  | E9        | 5000                                     | 10                          | 0.10                | 576                   | 16SEPC180MX |
|        |                      |                        | 8.0            | 12.0 | E12       | 4360                                     | 16                          | 0.10                | 576                   | 16SEPC180M  |
|        |                      | 220                    | 8.0            | 7.0  | E7        | 4150                                     | 13                          | 0.10                | 500                   | 16SEPC220MD |
| 270    |                      | 8.0                    | 9.0            | E9   | 5000      | 10                                       | 0.10                        | 864                 | 16SEPC270MX           |             |
|        |                      | 8.0                    | 12.0           | E12  | 5000      | 11                                       | 0.10                        | 864                 | 16SEPC270M            |             |
| 470    | 10.0                 | 13.0                   | F13            | 6100 | 10        | 0.10                                     | 1504                        | 16SEPC470M          |                       |             |

\*1 Ripple current (100 kHz/ +105 °C), \*2 ESR (100 kHz to 300 kHz/+20 °C) \*3 tan δ (120 Hz/+20 °C) \*4 After 2 minutes  
 ◆ Please refer to each page in this catalog for "Flow conditions" and "Taping specifications".

## Frequency correction factor for ripple current

| Frequency   | 120 Hz ≤ f < 1 kHz | 1 kHz ≤ f < 10 kHz | 10 kHz ≤ f < 100 kHz | 100 kHz ≤ f < 500 kHz |
|-------------|--------------------|--------------------|----------------------|-----------------------|
| Coefficient | 0.05               | 0.3                | 0.7                  | 1                     |