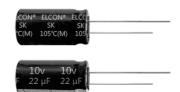
# **ELCON**

# SK

#### **Series**

- Super miniature series with 7mm height
- High performance and excellent temperature characteristics
- Wide operating temperature range of -40~+105°C

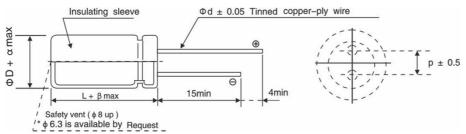


#### **■**SPECIFICATIONS

| Item                       | Characteristics   |                             |      |                                 |       |       |      |  |  |    |  |
|----------------------------|---|-----------------------------|------|---------------------------------|-------|-------|------|--|--|----|--|
| Category Temperature Range | -40 ~ +105℃   |                             |      |                                 |       |       |      |  |  |    |  |
| Voltage Range              | 6.3 ~ 50V   | 6.3 ~ 50V.DC                |      |                                 |       |       |      |  |  |    |  |
| Nominal Cap. Range         | 0.1 ~ 330   | 0.1 ~ 330μF                 |      |                                 |       |       |      |  |  |    |  |
| Capacitance Tolerance      | ± 10 % (a   | ± 10 % (at 120Hz , 20°C)    |      |                                 |       |       |      |  |  |    |  |
| Leakage Current            | I=0.01CV or $3(μA)$ , whichever is greater (After 2 minutes). where, I: max leakage current( $μA$ ), C:Nominal capacitance( $μF$ ), V:Rated voltage (V) (at $20$ °C)  |                             |      |                                 |       |       |      |  |  |    |  |
| Dissipation Factor (MAX)   | WV  | 6.3                         | 10   | 16                              | 25    | 35    | 50   |  |  |    |  |
| (tanδ) (at 120Hz , 20°C)   | tanδ  | 0.25                        | 0.21 | 0.17                            | 0.15  | 0.12  | 0.10 |  |  |    |  |
| Low Temp. Impedance        | WV  |                             | 6.3  | 10                              | 16~25 | 35~50 |      |  |  |    |  |
| Stability at 120Hz         | Z-25°C / Z+20°C   |                             | 4    | 3                               | 2     | 2     |      |  |  |    |  |
| J. 120.12                  | Z-40°C /  | Z+20°C                      | 8    | 6                               | 4     | 3     |      |  |  |    |  |
|                            | After 1000 hours application of DC rated working voltage at 105℃, the capacitor shall meet the following limits.  |                             |      |                                 |       |       |      |  |  | ng |  |
| Endurance                  | Capacitar   | ≤ ±25% of the initial value |      |                                 |       |       |      |  |  |    |  |
|                            | Dissipation Factor  |                             |      | ≤ 200% of the initial specified |       |       |      |  |  |    |  |
|                            | Leakage Current ≤ the initial specified value   |                             |      |                                 |       |       |      |  |  |    |  |
| Shelf Life                 | After storage for 500 hours at 105°C with no voltage applied, voltage treatment of JIS-C-5102 article 4-4 is to be given and then measurement shall be made, at which time requirements specified in the table "High Temperature Loading" can be met. |                             |      |                                 |       |       |      |  |  |    |  |

Note: Some cleaning solvents may adversely affect the capacitors, Consult us about the suitable type of cleaning solvents to be used.

#### **■ DRAWING**



| Unit: (mn | า)  |     |     |     |  |  |  |  |
|-----------|-----|-----|-----|-----|--|--|--|--|
| ФD        | 4   | 5   | 6.3 | 8   |  |  |  |  |
| Р         | 1.5 | 2.0 | 2.5 | 3.5 |  |  |  |  |
| Фd        |     | 0.5 |     |     |  |  |  |  |
| β         | 1.0 |     |     |     |  |  |  |  |
| α         | 0.5 |     |     |     |  |  |  |  |

#### **■ MULTIPLIER FOR RIPPLE CURRENT**

#### (1) Frequency Coefficient

#### Freq.(Hz) 60(50) 120 500 1K 10K Cap.(µF) 0.1~47 0.80 1.00 1.25 1.45 1.50 100~330 0.80 1.00 1.20 1.30 1.35

### (2) Temperature Coefficient

| Ambient<br>Temperature(℃) | 40   | 60   | 70   | 85   | 105  |  |
|---------------------------|------|------|------|------|------|--|
| Coefficient               | 2.00 | 1.80 | 1.60 | 1.40 | 1.00 |  |

# SK

# **Series**

# **■**STANDARD RATINGS

| WV(vdc)  Parameter  Cap.(µF) | 6.3          |  | 10           |  | 16           |  | 25           |  | 35           |  | 50           |  |
|------------------------------|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|
|                              | ФDxL<br>(mm) | Ripple<br>Current<br>(mArms)<br>105°C<br>120Hz | ΦDxL<br>(mm) | Ripple<br>Current<br>(mArms)<br>105°C<br>120Hz | ΦDxL<br>(mm) | Ripple<br>Current<br>(mArms)<br>105°C<br>120Hz | ФDxL<br>(mm) | Ripple<br>Current<br>(mArms)<br>105°C<br>120Hz | ФDxL<br>(mm) | Ripple<br>Current<br>(mArms)<br>105°C<br>120Hz | ΦDxL<br>(mm) | Ripple<br>Current<br>(mArms)<br>105°C<br>120Hz |
| 0.1                          |              |  |              |  |              |  |              |  |              |  | 4x7          | 1  |
| 0.22                         |              |  |              |  |              |  |              |  |              |  | 4x7          | 2  |
| 0.33                         |              |  |              |  |              |  |              |  |              |  | 4x7          | 3  |
| 0.47                         |              |  |              |  |              |  |              |  |              |  | 4x7          | 5  |
| 1.0                          |              |  |              |  |              |  |              |  |              |  | 4x7          | 10   |
| 2.2                          |              |  |              |  |              |  |              |  |              |  | 4x7          | 15   |
| 3.3                          |              |  |              |  |              |  |              |  |              |  | 4x7          | 20   |
| 4.7                          |              |  |              |  |              |  | 4x7          | 17   | 4x7          | 22   | 5x7          | 23   |
| 10                           |              |  |              |  | 4x7          | 26   | 5x7          | 28   | 5x7          | 30   | 6.3x7        | 35   |
| 22                           | 4x7          | 30   | 5X7          | 36   | 5x7          | 39   | 6.3x7        | 51   | 6.3x7        | 57   | 6.3x7        | 65   |
| 33                           | 5x7          | 40   | 5x7          | 43   | 6.3x7        | 57   | 6.3x7        | 65   | 6.3x7        | 73   | 6.3x7        | 81   |
| 47                           | 5x7          | 48   | 5x7          | 65   | 6.3x7        | 70   | 6.3x7        | 71   | 6.3x7        | 80   |              |  |
| 100                          | 6.3x7        | 72   | 6.3x7        | 82   | 6.3x7        | 85   |              |  |              |  |              |  |
| 220                          | 6.3x7        | 87   | 6.3x7        | 141  |              |  |              |  |              |  |              |  |
| 330                          | 8x7          | 103  |              |  |              |  |              |  |              |  |              |  |