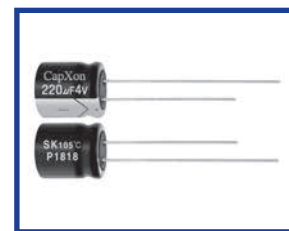


## SK Series 7 mm Standard 105°C



### Features

- ◆ Design for space-saving and high density insertion.
- ◆ Applications: VTR, car radio, car stereos. charger, etc.
- ◆ RoHS Compliant

### Specifications

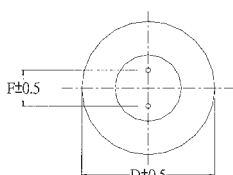
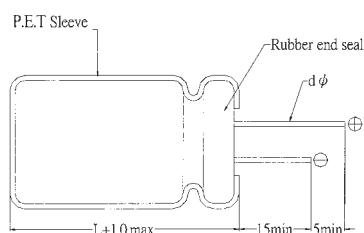
| Item   | Performance Characteristics  |           |     |    |    |    |    |    |    |
|--|--|-----------|-----|----|----|----|----|----|----|
| Operating Temperature Range  | -40 to +105°C  |           |     |    |    |    |    |    |    |
| Rated Voltage Range  | 4 to 63 VDC  |           |     |    |    |    |    |    |    |
| Capacitance Range  | 0.1 to 470 µF  |           |     |    |    |    |    |    |    |
| Capacitance Tolerance  | ±20% (120Hz, +20°C)  |           |     |    |    |    |    |    |    |
| Leakage Current(+20°C, max)  | I ≤ 0.01 CV or 3 (µA)<br>After 1 minute, whichever is greater measured with rated working voltage applied. |           |     |    |    |    |    |    |    |
| Dissipation Factor<br>(tan δ , at 20°C , 120Hz)  | Rated Voltage(VDC)   | 4         | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 |
|  | D.F. (%)max.   | 25        | 22  | 20 | 16 | 14 | 12 | 10 | 9  |
| Low Temperature Characteristics<br>(at 120Hz)  | Impedance ratio max  |           |     |    |    |    |    |    |    |
|  | Rated Voltage(VDC)   | 4         | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 |
|  | Z-25°C/Z+20°C  | 7         | 4   | 3  | 2  | 2  | 2  | 2  | 2  |
|  | Z-40°C/Z+20°C  | 15        | 8   | 6  | 4  | 4  | 3  | 3  | 3  |
| Endurance  | Test conditions  |           |     |    |    |    |    |    |    |
|  | Duration time  | :1000 Hrs |     |    |    |    |    |    |    |
| Ambient temperature  | :+105°C  |           |     |    |    |    |    |    |    |
| Applied voltage  | :Rated DC working voltage  |           |     |    |    |    |    |    |    |
| After test requirement at +20°C  | Capacitance change : ≤ ±20% of the initial measured value (4V : ≤ ±30%)                                    |           |     |    |    |    |    |    |    |
| Dissipation factor   | : ≤ 200% of the initial specified value  |           |     |    |    |    |    |    |    |
| Leakage current  | : ≤ The initial specified value  |           |     |    |    |    |    |    |    |
| Shelf Life   | Test conditions  |           |     |    |    |    |    |    |    |
|  | Duration time  | :1000 Hrs |     |    |    |    |    |    |    |
| Ambient temperature  | :+105°C  |           |     |    |    |    |    |    |    |
| Applied voltage  | :None  |           |     |    |    |    |    |    |    |
| After test requirement at +20°C : Same limits as Endurance.<br>Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes. |  |           |     |    |    |    |    |    |    |

Radial

### Multiplier for Ripple Current vs. Frequency

| Frequency(Hz) \ CAP( µ F) | 50(60) | 120  | 400  | 1K   | 10K  | 50K-100K |
|---------------------------|--------|------|------|------|------|----------|
| CAP ≤ 10                  | 0.80   | 1.00 | 1.30 | 1.45 | 1.65 | 1.7      |
| 10 < CAP ≤ 100            | 0.80   | 1.00 | 1.23 | 1.36 | 1.48 | 1.53     |
| 100 < CAP ≤ 1000          | 0.80   | 1.00 | 1.16 | 1.25 | 1.35 | 1.38     |

### Diagram of Dimensions:(unit:mm)



| D φ | 4       | 5       | 6.3     | 8       |
|-----|---------|---------|---------|---------|
| F   | 1.5±0.5 | 2.0±0.5 | 2.5±0.5 | 3.5±0.5 |
| d φ | 0.45    |         | 0.5     |         |

## Case Size

| WV (Vdc) | Cap (uF) | Size (mm) | Rated Ripple current (mArms/105°C /120Hz) |
|----------|----------|-----------|---|
| 4        | 22       | 4x7       | 23  |
| 4        | 33       | 4x7       | 26  |
| 4        | 47       | 4x7       | 35  |
| 4        | 68       | 5x7       | 55  |
| 4        | 100      | 5x7       | 58  |
| 4        | 220      | 6.3x7     | 65  |
| 4        | 330      | 6.3x7     | 90  |
| 4        | 470      | 8x7       | 120                                       |
| 6.3      | 22       | 4x7       | 31  |
| 6.3      | 33       | 4x7       | 32  |
| 6.3      | 33       | 5x7       | 35  |
| 6.3      | 47       | 4x7       | 40  |
| 6.3      | 47       | 5x7       | 47  |
| 6.3      | 68       | 5x7       | 55  |
| 6.3      | 100      | 5x7       | 65  |
| 6.3      | 100      | 6.3x7     | 75  |
| 6.3      | 220      | 6.3x7     | 90  |
| 6.3      | 220      | 8x7       | 120                                       |
| 6.3      | 330      | 8x7       | 120                                       |
| 10       | 15       | 4x7       | 28  |
| 10       | 22       | 4x7       | 35  |
| 10       | 33       | 4x7       | 40  |
| 10       | 33       | 5x7       | 45  |
| 10       | 47       | 4x7       | 47  |
| 10       | 47       | 5x7       | 51  |
| 10       | 68       | 5x7       | 60  |
| 10       | 68       | 6.3x7     | 68  |
| 10       | 100      | 5x7       | 80  |
| 10       | 100      | 6.3x7     | 90  |
| 10       | 220      | 6.3x7     | 105                                       |
| 10       | 220      | 8x7       | 150                                       |
| 16       | 6.8      | 4x7       | 20  |
| 16       | 10       | 4x7       | 30  |
| 16       | 15       | 4x7       | 32  |
| 16       | 22       | 4x7       | 37  |
| 16       | 22       | 5x7       | 42  |
| 16       | 33       | 4x7       | 45  |
| 16       | 33       | 5x7       | 50  |
| 16       | 47       | 5x7       | 61  |
| 16       | 47       | 6.3x7     | 67  |
| 16       | 68       | 6.3x7     | 72  |
| 16       | 100      | 6.3x7     | 95  |
| 16       | 100      | 8x7       | 105                                       |
| 25       | 4.7      | 4x7       | 17  |
| 25       | 6.8      | 4x7       | 21  |
| 25       | 10       | 4x7       | 30  |
| 25       | 10       | 5x7       | 33  |
| 25       | 15       | 5x7       | 38  |
| 25       | 22       | 5x7       | 45  |
| 25       | 22       | 6.3x7     | 48  |
| 25       | 33       | 5x7       | 52  |
| 25       | 33       | 6.3x7     | 60  |
| 25       | 47       | 6.3x7     | 68  |

| WV (Vdc) | Cap (uF) | Size (mm) | Rated Ripple current (mArms/105°C /120Hz) |
|----------|----------|-----------|---|
| 25       | 47       | 8x7       | 72  |
| 25       | 68       | 6.3x7     | 75  |
| 25       | 100      | 8x7       | 115                                       |
| 35       | 4.7      | 4x7       | 22  |
| 35       | 6.8      | 4x7       | 24  |
| 35       | 6.8      | 5x7       | 28  |
| 35       | 10       | 4x7       | 30  |
| 35       | 10       | 5x7       | 35  |
| 35       | 15       | 5x7       | 38  |
| 35       | 15       | 6.3x7     | 45  |
| 35       | 22       | 5x7       | 50  |
| 35       | 22       | 6.3x7     | 58  |
| 35       | 33       | 6.3x7     | 54  |
| 35       | 33       | 8x7       | 68  |
| 35       | 47       | 8x7       | 80  |
| 35       | 68       | 8x7       | 85  |
| 50       | 0.1      | 4x7       | 2   |
| 50       | 0.15     | 4x7       | 2   |
| 50       | 0.22     | 4x7       | 3   |
| 50       | 0.33     | 4x7       | 4   |
| 50       | 0.47     | 4x7       | 5   |
| 50       | 0.68     | 4x7       | 7   |
| 50       | 1        | 4x7       | 10  |
| 50       | 1.5      | 4x7       | 13  |
| 50       | 2.2      | 4x7       | 19  |
| 50       | 3.3      | 4x7       | 24  |
| 50       | 4.7      | 4x7       | 27  |
| 50       | 4.7      | 5x7       | 29  |
| 50       | 6.8      | 5x7       | 32  |
| 50       | 6.8      | 6.3x7     | 33  |
| 50       | 10       | 5x7       | 35  |
| 50       | 10       | 6.3x7     | 38  |
| 50       | 15       | 6.3x7     | 52  |
| 50       | 22       | 6.3x7     | 60  |
| 50       | 22       | 8x7       | 63  |
| 50       | 33       | 8x7       | 78  |
| 63       | 0.1      | 4x7       | 2   |
| 63       | 0.15     | 4x7       | 2   |
| 63       | 0.22     | 4x7       | 3   |
| 63       | 0.33     | 4x7       | 4   |
| 63       | 0.47     | 4x7       | 6   |
| 63       | 0.68     | 4x7       | 7   |
| 63       | 1        | 4x7       | 12  |
| 63       | 1.5      | 4x7       | 14  |
| 63       | 2.2      | 4x7       | 19  |
| 63       | 3.3      | 5x7       | 25  |
| 63       | 4.7      | 5x7       | 29  |
| 63       | 4.7      | 6.3x7     | 33  |
| 63       | 6.8      | 6.3x7     | 35  |
| 63       | 10       | 6.3x7     | 40  |
| 63       | 15       | 8x7       | 55  |
| 63       | 22       | 8x7       | 65  |