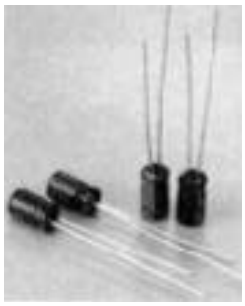
# SK Series 7 mm 105℃

## Features



- ◆ Design for space-saving and high density insertion.
- ◆ Applications: VTR, car radio, car stereos. charger, etc.
- ◆ For detail specifications, please refer to Engineering Bulletin No. E115

## Specifications

| Item | Performance Characteristics |
|---|---|
| Operating Temperature Range | -40 to +105℃ |
| Rate Voltage Range | 4 to 63 VDC |
| Capacitance Range | 0.1 to 470 μF |
| Capacitance Tolerance | ±20% (120Hz, +20℃) |
| Leakage Current(+20℃, max) | 1≦0.01 CV or 3 (μA)<br>After 1 minute, whichever is greater measured with rate working voltage applied. |
| Dissipation Factor(tan δ) | Working Voltage (VDC): 4 / 6.3 / 10 / 16 / 25 / 35 / 50 / 63<br>D.F. (%)max: 35 / 24 / 20 / 16 / 14 / 12 / 10 / 9<br>(+20℃,at 120Hz) |
| Low Temperature Characteristics (120Hz) | Impedance ratio max.<br>Working Voltage (VDC): 4 / 6.3 / 10 / 16 / 25 / 35 / 50 / 63<br>Z-25℃ / Z+20℃: 7 / 4 / 3 / 2 / 2 / 2 / 2 / 2<br>Z-40℃ / Z+20℃: 15 / 8 / 6 / 4 / 4 / 3 / 3 / 3 |
| Load Life | Test conditions<br>Duration time :1000 Hrs<br>Ambient temperature :+105℃<br>Applied voltage :Rated DC working voltage<br>After test requirements at +20℃<br>Capacitance change :≦ ±20% of the initial measured value (4V : ≦± 30%)<br>Dissipation factor :≦ 200% of the initial specified value<br>Leakage current :≦ The initial specified value |
| Shelf Life | Test conditions<br>Duration time :1000 Hrs<br>Ambient temperature :+105℃<br>Applied voltage :None<br>After test requirements at +20℃ : Same limits as Load life.<br>Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes. |

## Multiplier for Ripple Current vs. Frequency

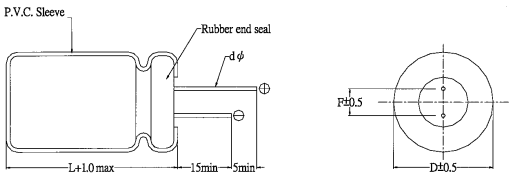
| CAP(μF) \ Hz | | 50(60) | 120 | 400 | 1K | 10K | 50K-100K |
|---|---|---|---|---|---|---|---|
| Multiplier | CAP≦10 | 0.8 | 1 | 1.30 | 1.45 | 1.65 | 1.70 |
| | 10<CAP≦100 | 0.8 | 1 | 1.23 | 1.36 | 1.36 | 1.53 |
| | 100<CAP≦1000 | 0.8 | 1 | 1.16 | 1.25 | 1.25 | 1.38 |

## Multiplier for Ripple Current vs. Temperature

| Temperature℃ | 45 | 60 | 70 | 85 | 105 |
|---|---|---|---|---|---|
| Multiplier | 2.10 | 1.90 | 1.65 | 1.4 | 1.00 |

# CapXon SK Series

## Diagram of Dimension: (unit:mm)




| Dψ | 4 | 5 | 6.3 | 8 |
|---|---|---|---|---|
| F | 1.5 | 2.0 | 2.5 | 3.5 |
| dψ | 0.45 | | 0.5 | |

## Case Size

φDxL(mm)

| WV(SV) / μF | 4 (5) | 6.3 (8) | 10 (13) | 16 (20) | 25 (32) | 35 (44) | 50 (63) | 63 (79) |
|---|---|---|---|---|---|---|---|---|
| 0.1 | → | → | → | → | → | → | 4x7 | 4x7 |
| 0.22 | → | → | → | → | → | → | 4x7 | 4x7 |
| 0.33 | → | → | → | → | → | → | 4x7 | 4x7 |
| 0.47 | → | → | → | → | → | → | 4x7 | 4x7 |
| 1 | → | → | → | → | → | → | 4x7 | 4x7 |
| 2.2 | → | → | → | → | → | → | 4x7 | 4x7 |
| 3.3 | → | → | → | → | → | → | 4x7 | 5x7 |
| 4.7 | → | → | → | → | 4x7 | 4x7 | 4x7 | 5x7 |
| 10 | → | → | → | 4x7 | 4x7 | 4x7 | 5x7 | 6.3x7 |
| 22 | → | → | 4x7 | 4x7 | 5x7 | 5x7 | 6.3x7 | — |
| 33 | → | → | 4x7 | 4x7 | 5x7 | 6.3x7 | 8x7 | — |
| 47 | 4x7 | 4x7 | 5x7 | 5x7 | 6.3x7 | 8x7 | — | — |
| 100 | 4x7 | 5x7 | 6.3x7 | 6.3x7 | 8x7 | — | — | — |
| 220 | 6.3x7 | 6.3x7 | 8x7 | — | — | — | — | — |
| 330 | 6.3x7 | 8x7 | — | — | — | — | — | — |
| 470 | 8x7 | — | — | — | — | — | — | — |

## Maximum Ripple Current

(mA, rms, 120Hz at 105℃)

| WV(SV) / μF | 4 (5) | 6.3 (8) | 10 (13) | 16 (20) | 25 (32) | 35 (44) | 50 (63) | 63 (79) |
|---|---|---|---|---|---|---|---|---|
| 0.1 | → | → | → | → | → | → | 3 | 4 |
| 0.22 | → | → | → | → | → | → | 3 | 4 |
| 0.33 | → | → | → | → | → | → | 3 | 4 |
| 0.47 | → | → | → | → | → | → | 5 | 6 |
| 1 | → | → | → | → | → | → | 10 | 13 |
| 2.2 | → | → | → | → | → | → | 19 | 21 |
| 3.3 | → | → | → | → | → | → | 24 | 26 |
| 4.7 | → | → | → | → | 15 | 20 | 29 | 33 |
| 10 | → | → | → | 30 | 30 | 30 | 32 | 35 |
| 22 | → | → | 35 | 37 | 45 | 47 | 50 | — |
| 33 | → | → | 40 | 42 | 47 | 52 | 62 | — |
| 47 | 35 | 40 | 47 | 65 | 65 | 70 | — | — |
| 100 | 40 | 65 | 90 | 92 | 95 | — | — | — |
| 220 | 65 | 120 | 125 | — | — | — | — | — |
| 330 | 120 | 150 | — | — | — | — | — | — |
| 470 | 150 | — | — | | — | — | — | — |