

SS SERIES ■ 5MM HEIGHT, STANDARD 85°C TYPE

KEY FEATURES



- ALUMINUM ELECTROLYTIC CAPACITOR ■ THT type
- Endurance: 85°C ■ 1000 hours
- Optimized for high density insertion
- Low height ■ 5mm
- Miniaturized for space critical applications



SPECIFICATIONS

| Items | | Performance Characteristics | | | | | | | |
|--|---------------|---|----|-----|----|----|----|----|----|
| Operating Temperature Range | | -40 ~ +85°C | | | | | | | |
| Rated Voltage Range | V_R | 4 ~ 50V DC | | | | | | | |
| Surge Voltage | V_S | $V_S = 1.15 \cdot V_R$ | | | | | | | |
| Capacitance Range | C_R | 0.1 ~ 330 μ F | | | | | | | |
| Cap. Tolerance | ΔC | $\pm 20\%$ (120Hz ■ 20°C) | | | | | | | |
| Leakage Current (20°C ■ V_R applied) | I_{LEAK} | $\leq 0.01 \cdot C_R \cdot V_R$ or 3 μ A, whichever is greater ■ After 1 minute [I_{LEAK} (μ A) ; C_R (μ F) ; V_R (V)] | | | | | | | |
| Dissipation Factor % (20°C - 120Hz) | $\tan \delta$ | V_R (V DC) | 4 | 6.3 | 10 | 16 | 25 | 35 | 50 |
| | | $\tan \delta$ (%) | 35 | 24 | 20 | 16 | 14 | 12 | 10 |
| Low Temperature Characteristics at 120Hz | Z ratio max. | V_R (V DC) | 4 | 6.3 | 10 | 16 | 25 | 35 | 50 |
| | | Z-25°C/Z+20°C | 7 | 4 | 3 | 2 | 2 | 2 | 2 |
| | | Z-40°C/Z+20°C | 15 | 8 | 8 | 4 | 4 | 3 | 3 |

| Lifetime Test | | | |
|--|------------------------------------|---|------------|
| Endurance 85°C (V_R applied) | Test | 1000 hours | |
| | $\Delta C/C_R$ | $\leq \pm 20\%$ of initial measured value | 6.3 ~ 50 V |
| | | $\leq \pm 30\%$ of initial measured value | 4V |
| | $\tan \delta$ | $\leq 200\%$ of initial specified value | |
| I_{Leak} | \leq the initial specified value | | |
| Shelf Life 85°C ($V_R = 0$) | Test | 1000 hours | |
| | $\Delta C/C_R$ | $\leq \pm 20\%$ of initial measured value | 6.3 ~ 50 V |
| | | $\leq \pm 30\%$ of initial measured value | 4V |
| | $\tan \delta$ | $\leq 200\%$ of initial specified value | |
| | I_{Leak} | \leq the initial specified value | |
| Before measurement: Restore capacitor to 20°C, apply V_R for 30 min according JIS-C-5101-4 | | | |

MULTIPLIER K_f for RIPPLE CURRENT vs. FREQUENCY

| C_R (μ F) / Frequency (Hz) | 50/60 | 100/120 | 1k | $\geq 10k$ |
|-----------------------------------|-------|---------|------|------------|
| 0.1 ~ 68 | 0.8 | 1 | 1.3 | 1.5 |
| 100 ~ 330 | 0.8 | 1 | 1.15 | 1.2 |

STANDARD RATINGS

Part number shows bulk version with straight leads

| V_R (V) | C_R (μF) | $\varnothing D$ (mm) | L (mm) | I_R - Max. Ripple Current +85°C - 120Hz (mA rms) | CapXon Part Number |
|--------------|----------------------|-------------------------|-----------|---|--------------------|
| 4 | 10 | 4 | 5 | 11 | SS100M004B050A |
| | 15 | 4 | 5 | 17 | SS150M004B050A |
| | 22 | 4 | 5 | 21 | SS220M004B050A |
| | 33 | 4 | 5 | 28 | SS330M004B050A |
| | 47 | 4 | 5 | 33 | SS470M004B050A |
| | 68 | 5 | 5 | 43 | SS680M004C050A |
| | 68 | 6.3 | 5 | 48 | SS680M004E050A |
| | 100 | 5 | 5 | 52 | SS101M004C050A |
| | 220 | 6.3 | 5 | 78 | SS221M004E050A |
| | 330 | 8 | 5 | 142 | SS331M004F050A |
| 6.3 | 10 | 4 | 5 | 14 | SS100M6R3B050A |
| | 15 | 4 | 5 | 17 | SS150M6R3B050A |
| | 22 | 4 | 5 | 24 | SS220M6R3B050A |
| | 33 | 4 | 5 | 33 | SS330M6R3B050A |
| | 33 | 5 | 5 | 37 | SS330M6R3C050A |
| | 47 | 5 | 5 | 39 | SS470M6R3C050A |
| | 68 | 6.3 | 5 | 53 | SS680M6R3E050A |
| | 100 | 6.3 | 5 | 65 | SS101M6R3E050A |
| | 220 | 6.3 | 5 | 90 | SS221M6R3E050A |
| | 220 | 8 | 5 | 115 | SS221M6R3F050A |
| 330 | 8 | 5 | 145 | SS331M6R3F050A | |
| 10 | 6.8 | 4 | 5 | 11 | SS6R8M010B050A |
| | 10 | 4 | 5 | 17 | SS100M010B050A |
| | 15 | 4 | 5 | 21 | SS150M010B050A |
| | 22 | 4 | 5 | 30 | SS220M010B050A |
| | 22 | 5 | 5 | 33 | SS220M010C050A |
| | 33 | 5 | 5 | 39 | SS330M010C050A |
| | 47 | 5 | 5 | 42 | SS470M010C050A |
| | 47 | 6.3 | 5 | 46 | SS470M010E050A |
| | 68 | 6.3 | 5 | 56 | SS680M010E050A |
| | 100 | 6.3 | 5 | 76 | SS101M010E050A |
| 220 | 8 | 5 | 138 | SS221M010F050A | |
| 16 | 4.7 | 4 | 5 | 11 | SS4R7M016B050A |
| | 6.8 | 4 | 5 | 13 | SS6R8M016B050A |
| | 10 | 4 | 5 | 20 | SS100M016B050A |
| | 15 | 5 | 5 | 26 | SS150M016C050A |
| | 22 | 4 | 5 | 33 | SS220M016B050A |
| | 22 | 5 | 5 | 35 | SS220M016C050A |
| | 33 | 5 | 5 | 42 | SS330M016C050A |
| | 33 | 6.3 | 5 | 46 | SS330M016E050A |
| | 47 | 6.3 | 5 | 58 | SS470M016E050A |
| | 68 | 6.3 | 5 | 65 | SS680M016E050A |
| 100 | 6.3 | 5 | 86 | SS101M016E050A | |
| 100 | 8 | 5 | 92 | SS101M016F050A | |

See "PACKAGING INFORMATION" to taped or formed products.

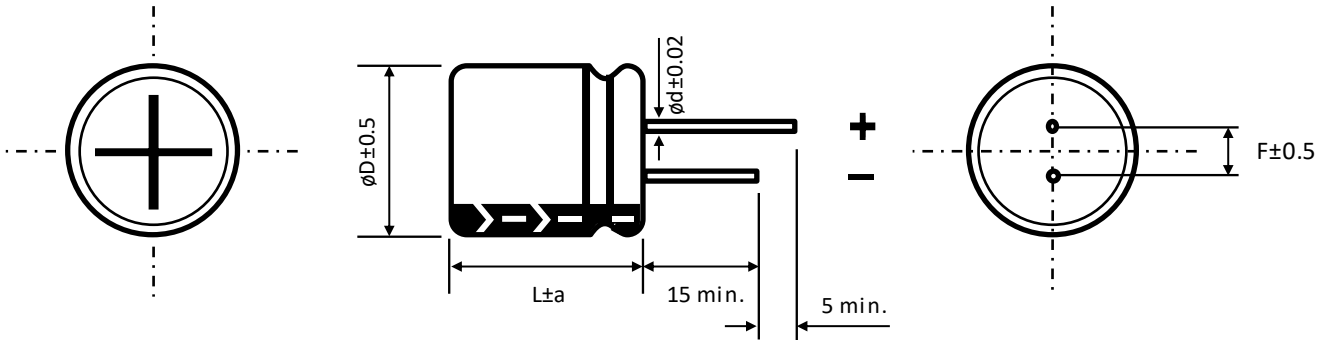
STANDARD RATINGS

Part number shows bulk version with straight leads

| V_R (V) | C_R (μ F) | ϕ D (mm) | L (mm) | I_R - Max. Ripple Current +85°C - 120Hz (mA rms) | CapXon Part Number |
|--------------|---------------------|------------------|-----------|---|--------------------|
| 25 | 3.3 | 4 | 5 | 10 | SS3R3M025B050A |
| | 4.7 | 4 | 5 | 15 | SS4R7M025B050A |
| | 6.8 | 4 | 5 | 17 | SS6R8M025B050A |
| | 10 | 4 | 5 | 27 | SS100M025B050A |
| | 10 | 5 | 5 | 28 | SS100M025C050A |
| | 15 | 5 | 5 | 30 | SS150M025C050A |
| | 15 | 6.3 | 5 | 33 | SS150M025E050A |
| | 22 | 6.3 | 5 | 44 | SS220M025E050A |
| | 33 | 6.3 | 5 | 52 | SS330M025E050A |
| | 47 | 6.3 | 5 | 62 | SS470M025E050A |
| | 68 | 8 | 5 | 90 | SS680M025F050A |
| 100 | 8 | 5 | 108 | SS101M025F050A | |
| 35 | 2.2 | 4 | 5 | 8.4 | SS2R2M035B050A |
| | 3.3 | 4 | 5 | 11 | SS3R3M035B050A |
| | 4.7 | 4 | 5 | 18 | SS4R7M035B050A |
| | 6.8 | 5 | 5 | 20 | SS6R8M035C050A |
| | 10 | 5 | 5 | 29 | SS100M035C050A |
| | 15 | 6.3 | 5 | 33 | SS150M035E050A |
| | 22 | 6.3 | 5 | 46 | SS220M035E050A |
| | 33 | 8 | 5 | 63 | SS330M035F050A |
| 50 | 0.1 | 4 | 5 | 1.5 | SS0R1M050B050A |
| | 0.15 | 4 | 5 | 2 | SSR15M050B050A |
| | 0.22 | 4 | 5 | 2.6 | SSR22M050B050A |
| | 0.33 | 4 | 5 | 3.2 | SSR33M050B050A |
| | 0.47 | 4 | 5 | 3.8 | SSR47M050B050A |
| | 0.68 | 4 | 5 | 5 | SSR68M050B050A |
| | 1 | 4 | 5 | 6.2 | SS010M050B050A |
| | 1.5 | 4 | 5 | 7 | SS1R5M050B050A |
| | 2.2 | 4 | 5 | 9 | SS2R2M050B050A |
| | 3.3 | 4 | 5 | 14 | SS3R3M050B050A |
| | 4.7 | 5 | 5 | 20 | SS4R7M050C050A |
| | 6.8 | 6.3 | 5 | 25 | SS6R8M050E050A |
| | 10 | 6.3 | 5 | 30 | SS100M050E050A |
| | 15 | 6.3 | 5 | 37 | SS150M050E050A |
| | 22 | 6.3 | 5 | 48 | SS220M050E050A |
| | 22 | 8 | 5 | 52 | SS220M050F050A |
| | 33 | 8 | 5 | 70 | SS330M050F050A |

See "PACKAGING INFORMATION" to taped or formed products.

DIMENSIONS ▪ All dimensions in mm



| ϕD | 4 | 5 | 6.3 | 8 |
|----------|------|------|------|------|
| F | 1.5 | 2 | 2.5 | 3.5 |
| ϕd | 0.45 | 0.45 | 0.45 | 0.45 |
| a | 1 | 1 | 1 | 1 |

PRECAUTIONS, GUIDELINES AND PACKAGING INFORMATION

Unless otherwise agreed in individual specifications, all products are subject to our “General Precautions and Guidelines” as well as our “Packaging Information”. Please refer to the following links in the table.

| | | |
|--|---------------------------------------|---------------------------|
| | | |
| General Precautions & Guidelines | Packaging Information | 3D Models |

DISCLAIMER

All product related data (e.g. specification, statements and general information) are subject to change without any notice. It is necessary that the customer observes all product related technical / application information and handling instructions.

CapXon products are designed and manufactured according to severe quality and safety standards. Under no circumstance, CapXon warrants that any CapXon product is suitable for the purposes intended for your application, even CapXon knows the application. It is customer's duty and obligation to check and make sure that CapXon products are suitable for the purposes intended and select the correct and proper CapXon product. Customers are requested to perform a sufficient validation and reliability evaluation to assure needed safety level and reliability performance by suitable designs and to apply proper safeguards (e.g. redundancies, protective circuits).

Particular operating conditions (ambient temperature, ripple current, voltage, thermal resistance, etc.) as well as storage, production or assembly may affect the performance and the lifetime of the capacitor. Please consult CapXon for lifetime estimation, failure mode considerations or worst-case scenarios according to the product technology, product tolerances / deviations or change of the characteristics of the capacitor due to shipment, storage, handling, production and usage.

For aerospace or military application, life-saving, life-sustaining, safety critical applications or any application where failure may cause severe personal injury or death, please consult us before design-in the capacitor in your application.

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