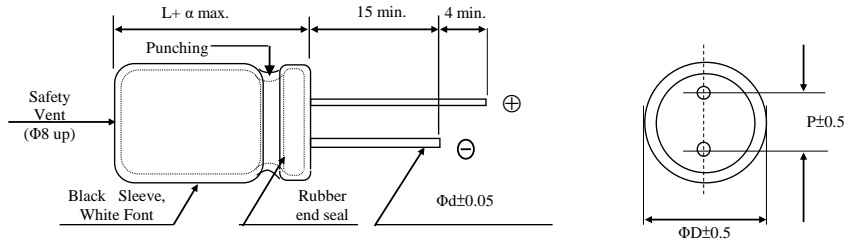


FOR APPROVAL

DIMENSIONS(mm)

| | |
|----|-----|
| ΦD | 5 |
| L | 11 |
| α | 1.0 |
| P | 2.0 |
| Φd | 0.5 |



| | | | |
|------------------|------------------|--------------------------------|----------------|
| Customer: | Melchioni | Electrolytic Capacitors | Su'scon |
| | | SK Series | Code |

| Electric Characteristics: | | | | | | | | | | | |
|---------------------------|----------------------|-----------|---------------|-------------------|--------------------|------------------|---------------------------|--------------------------|--------------|---------------------|-------------------|
| Melchioni | Su'scon | Cap. (uF) | Cap. Tol. (%) | Rate Volt. (V-DC) | Surge Volt. (V-DC) | Oper. Temp. (°C) | Nominal Case Size D*L(mm) | Leakage Current Max (uA) | D.F. MAX (%) | R.C 120 Hz (mA rms) | Load Life (hours) |
| P/N | P/N | | | | | | | | | | |
| | SK035M470D11PKKKS00R | 47 | ±20 | 35 | 44 | 105 | 5*11 | 16 | 12 | 105 | 2000 |
| | SK063M100D11PKKKS00R | 10 | ±20 | 63 | 79 | 105 | 5*11 | 6.3 | 9 | 58 | 2000 |
| | SK063M220D11PKKKS00R | 22 | ±20 | 63 | 79 | 105 | 5*11 | 13 | 9 | 75 | 2000 |

REMARKS:

- Leakage Current Test:** 6.3V~100V at 20°C for 2 minutes; 160V~500V at 20°C for 3 minutes;
- Operating temperature:** 6.3V~250V -40°C~ +105°C ;350V~500V -25°C~ +105°C ;
- Dissipation Factor Test:** at 20°C, 120 Hz.
- Capacitance Test:** at 20°C, 120 Hz.
- Ripple Current Test:** at 105°C, 120 Hz ;
- Load Life:** 2000hours,subjected to DC voltage with the rated ripple current is applied at 105°C.

Capacitance Change: Within±20% of initial value;
tanδ: 200% or less of initial specified value;
 According to the specified value which stated in the catalogue to do the life testing;

Leakage Current: Initial specified value or less;

7. Shelf Life: According to the specified value which stated in the catalogue to do the life testing;
 exposing them for 1000 hours 105°C without voltage applide. Before the measurement, the capacitor shall be preconditioned by applying voltage according to them 4.1 of JIS C5101-4.

Capacitance Change : Within±20% of initial value;
tanδ: 200% or less of initial specified value;
Leakage Current: Initial specified value or less.

8. when have characteristic requested : Load life & shelf life test and etc. , judgment standard reference to our catalogue.

●SPECIFICATION

| | | | | | | | | | | | | |
|----------------------------------|--|---|------|------|------|------|------|------|------|------|---------|---------|
| Voltage Range 工作電壓範圍 | 6.3V~100V | 160V~500V | | | | | | | | | | |
| Leakage Current 洩漏電流 | $I \leq 0.01CV$ or 3 (uA), Which is greater. (After 2 minutes application of working voltage) | $I \leq 0.03CV+20(uA)$, (After 3 minutes application of working voltage) | | | | | | | | | | |
| Dissipation Factor 散逸因素 (損失角) | Measurement Frequency:120Hz. Temperature:20°C | | | | | | | | | | | |
| (tan δ) | Rate Voltage(V) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 80 | 100 | 160~250 | 350~500 |
| | tanδ (MAX) | 0.24 | 0.20 | 0.16 | 0.15 | 0.12 | 0.10 | 0.09 | 0.08 | 0.08 | 0.20 | 0.25 |
| | When nominal capacitance over 1000µF, tanδ shall be added 0.02 to the listed value with increase of every 1000µF . | | | | | | | | | | | |
| Standards 參照標準 | JIS C-5101-4(IEC 60384) | | | | | | | | | | | |

●RIPPLE CURRENT COEFFICIENTS

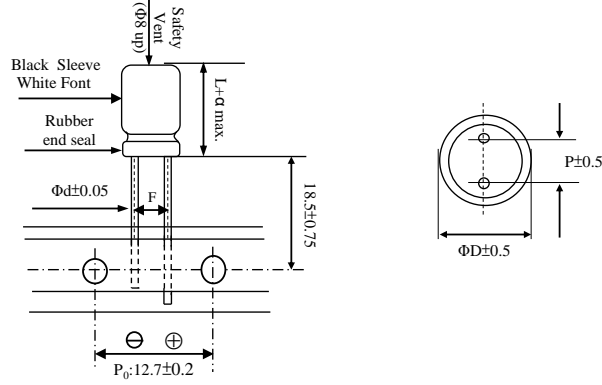
| Frequency coefficient of allowable ripple current | | | | | |
|---|-----------------|---------------|------|------|------|
| Rated Voltage(V) | Capacitance(uF) | Frequency(Hz) | | | |
| | | 50 | 120 | 1K | ≥20k |
| ≤ 100 | <100 | 0.75 | 1.00 | 1.40 | 1.50 |
| | 100~470 | 0.75 | 1.00 | 1.20 | 1.30 |
| | >470 | 0.85 | 1.00 | 1.10 | 1.15 |
| ≥ 160 | 0.47~470 | 0.75 | 1.00 | 1.10 | 1.50 |

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.
 Production date:2024.02.04

FOR APPROVAL

DIMENSIONS(mm)

| | | |
|-----------------------------------|-----|-----|
| ΦD | 10 | 10 |
| L | 16 | 20 |
| α | 2.0 | 2.0 |
| P | 5.0 | 5.0 |
| F ^{+0.8} _{-0.2} | 5.0 | 5.0 |
| Φd | 0.6 | 0.6 |



| | | |
|------------------|--------------------------------|----------------|
| Customer: | Electrolytic Capacitors | Su'scon |
| Melchioni | SK Series | Code |

Electric Characteristics:

| Melchioni | Su'scon | Cap. (uF) | Cap. Tol. (%) | Rate Volt. (V-DC) | Surge Volt. (V-DC) | Oper. Temp. (°C) | Nominal Case Size D*L(mm) | Leakage Current Max (uA) | D.F. MAX (%) | R.C 120 Hz (mA rms) | Load Life (hours) |
|-----------|----------------------|-----------|---------------|-------------------|--------------------|------------------|---------------------------|--------------------------|--------------|---------------------|-------------------|
| P/N | P/N | | | | | | | | | | |
| | SK025M102G20PE89P50R | 1000 | ±20 | 25 | 32 | 105 | 10*20 | 250 | 15 | 750 | 2000 |
| | SK100M101G16PE89P50R | 100 | ±20 | 100 | 125 | 105 | 10*16 | 100 | 8 | 270 | 2000 |

REMARKS:

- Leakage Current Test:** 6.3V~100V at 20°C for 2 minutes; 160V~500V at 20°C for 3 minutes;
- Operating temperature:** 6.3V~250V -40°C~ +105°C ;350V~500V -25°C~ +105°C ;
- Dissipation Factor Test:** at 20°C, 120 Hz.
- Capacitance Test:** at 20°C, 120 Hz.
- Ripple Current Test:** at 105°C, 120 Hz ;
- Load Life:** 2000hours,subjected to DC voltage with the rated ripple current is applied at 105°C.
- Capacitance Change:** Within±20% of initial value;
- tanδ:** 200% or less of initial specified value;
- Leakage Current:** Initial specified value or less;
- Shelf Life:** According to the specified value which stated in the catalogue to do the life testing; exposing them for 1000 hours 105°C without voltage applide. Before the measurement, the capacitor shall be preconditioned by applying voltage according to them 4.1 of JIS C5101-4.
- Capacitance Change :** Within±20% of initial value;
- tanδ:** 200% or less of initial specified value;
- Leakage Current:** Initial specified value or less.
- when have characteristic requested :** Load life & shelf life test and etc. , judgment standard reference to our catalogue.

●SPECIFICATION

| | | | | | | | | | | | | |
|---|--|---|------|------|------|------|------|------|------|------|---------|---------|
| Voltage Range 工作電壓範圍 | 6.3V~100V | 160V~500V | | | | | | | | | | |
| Leakage Current 洩漏電流 | I ≤ 0.01CV or 3 (uA), Which is greater. (After 2 minutes application of working voltage) | I ≤ 0.03CV+20(uA), (After 3 minutes application of working voltage) | | | | | | | | | | |
| Dissipation Factor 散逸因素 (損失角) (tan δ) | Measurement Frequency:120Hz. Temperature:20°C | | | | | | | | | | | |
| | Rate Voltage(V) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 80 | 100 | 160~250 | 350~500 |
| | tanδ (MAX) | 0.24 | 0.20 | 0.16 | 0.15 | 0.12 | 0.10 | 0.09 | 0.08 | 0.08 | 0.20 | 0.25 |
| | When nominal capacitance over 1000µF, tanδ shall be added 0.02 to the listed value with increase of every 1000µF . | | | | | | | | | | | |
| Standards 參照標準 | JIS C-5101-4(IEC 60384) | | | | | | | | | | | |

●RIPPLE CURRENT COEFFICIENTS

Frequency coefficient of allowable ripple current

| Rated Voltage(V) | Capacitance(uF) | Frequency(Hz) | | | |
|------------------|-----------------|---------------|------|------|------|
| | | 50 | 120 | 1K | ≥20k |
| ≤ 100 | <100 | 0.75 | 1.00 | 1.40 | 1.50 |
| | 100~470 | 0.75 | 1.00 | 1.20 | 1.30 |
| | >470 | 0.85 | 1.00 | 1.10 | 1.15 |
| ≥ 160 | 0.47~470 | 0.75 | 1.00 | 1.10 | 1.50 |

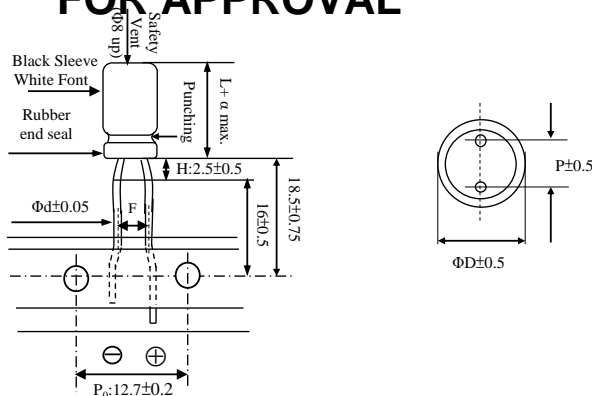
The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.

Production date:2024.02.04

FOR APPROVAL

DIMENSIONS(mm)

| | |
|-----------------------------------|-----|
| ΦD | 5 |
| L | 11 |
| α | 1.0 |
| P | 2.0 |
| F ^{+0.8} _{-0.2} | 2.5 |
| Φd | 0.5 |



| | | |
|--------------------------------------|--|-------------------------------|
| Customer: Melchioni | Electrolytic Capacitors SK Series | Su'scon Code |
|--------------------------------------|--|-------------------------------|

Electric Characteristics:

| Melchioni P/N | Su'scon P/N | Cap. (uF) | Cap. Tol. (%) | Rate Volt. (V-DC) | Surge Volt. (V-DC) | Oper. Temp. (°C) | Nominal Case Size D*L(mm) | Leakage Current Max (uA) | D.F. MAX (%) | R.C 120 Hz (mA rms) | Load Life (hours) |
|------------------|----------------------|--------------|---------------------|-------------------------|--------------------------|------------------------|---------------------------------|--------------------------------|--------------------|---------------------------|---------------------------|
| | SK063M220D11PE89P25R | 22 | ±20 | 63 | 79 | 105 | 5*11 | 13 | 9 | 75 | 2000 |
| | SK100M2R2D11PE89P25R | 2.2 | ±20 | 100 | 125 | 105 | 5*11 | 3 | 8 | 30 | 2000 |

REMARKS:

- Leakage Current Test:** 6.3V~100V at 20°C for 2 minutes; 160V~500V at 20°C for 3 minutes;
- Operating temperature:** 6.3V~250V -40°C~ +105°C ;350V~500V -25°C ~ +105°C ;
- Dissipation Factor Test:** at 20°C, 120 Hz.
- Capacitance Test:** at 20°C, 120 Hz.
- Ripple Current Test:** at 105°C, 120 Hz ;
- Load Life:** 2000hours,subjected to DC voltage with the rated ripple current is applied at 105°C.
- Capacitance Change:** Within±20% of initial value;
- tanδ:** 200% or less of initial specified value;
According to the specified value which stated in the catalogue to do the life testing;
- Leakage Current:** Initial specified value or less;
- Shelf Life:** According to the specified value which stated in the catalogue to do the life testing;
exposing them for 1000 hours 105°C without voltage applide. Before the measurement,
the capacitor shall be preconditioned by applying voltage according to them 4.1 of JIS C5101-4.
- Capacitance Change :** Within±20% of initial value;
- tanδ:** 200% or less of initial specified value;
- Leakage Current:** Initial specified value or less.
- when have characteristic requested :** Load life & shelf life test and etc. , judgment standard reference to our catalogue.

●SPECIFICATION

| | | | | | | | | | | | | |
|---|--|---|------|------|------|------|------|------|------|------|---------|---------|
| Voltage Range 工作電壓範圍 | 6.3V~100V | 160V~500V | | | | | | | | | | |
| Leakage Current 洩漏電流 | $I \leq 0.01CV$ or 3 (uA),Which is greater.(After 2 minutes application of working voltage) | $I \leq 0.03CV+20(uA)$, (After 3 minutes application of working voltage) | | | | | | | | | | |
| Dissipation Factor 散逸因素 (損失角) (tan δ) | Measurement Frequency:120Hz. Temperature:20°C | | | | | | | | | | | |
| | Rate Voltage(V) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 80 | 100 | 160~250 | 350~500 |
| | tanδ (MAX) | 0.24 | 0.20 | 0.16 | 0.15 | 0.12 | 0.10 | 0.09 | 0.08 | 0.08 | 0.20 | 0.25 |
| | When nominal capacitance over 1000µF, tanδ shall be added 0.02 to the listed value with increase of every 1000µF . | | | | | | | | | | | |
| Standards 參照標準 | JIS C-5101-4(IEC 60384) | | | | | | | | | | | |

●RIPPLE CURRENT COEFFICIENTS

Frequency coefficient of allowable ripple current

| Rated Voltage(V) | Capacitance(uF) | Frequency(Hz) | | | |
|------------------|-----------------|---------------|------|------|------|
| | | 50 | 120 | 1K | ≥20k |
| ≤ 100 | <100 | 0.75 | 1.00 | 1.40 | 1.50 |
| | 100~470 | 0.75 | 1.00 | 1.20 | 1.30 |
| | >470 | 0.85 | 1.00 | 1.10 | 1.15 |
| ≥ 160 | 0.47~470 | 0.75 | 1.00 | 1.10 | 1.50 |

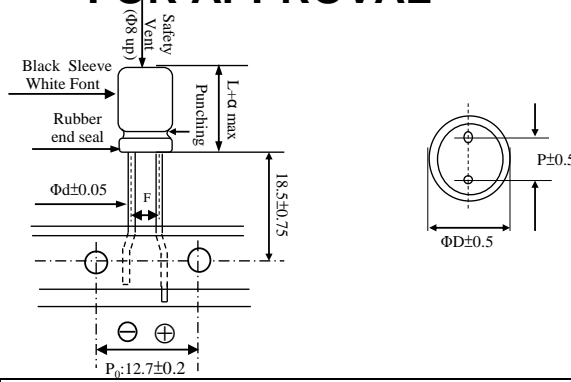
The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.

Production date:2024.02.04

FOR APPROVAL

DIMENSIONS(mm)

| | |
|-----------------------------------|-----|
| ΦD | 6.3 |
| L | 11 |
| α | 1.0 |
| P | 2.5 |
| F ^{+0.8} _{-0.2} | 2.5 |
| Φd | 0.5 |



| | | |
|-------------------------------|---|------------------------|
| Customer: Melchioni | Electrolytic Capacitors SK Series | Su'scon Code |
|-------------------------------|---|------------------------|

| | | | | | | | | | | | |
|---------------------------|----------------------|-----------|---------------|-------------------|--------------------|------------------|---------------------------|--------------------------|--------------|---------------------|-------------------|
| Electric Characteristics: | | | | | | | | | | | |
| Melchioni | Su'scon | Cap. (uF) | Cap. Tol. (%) | Rate Volt. (V-DC) | Surge Volt. (V-DC) | Oper. Temp. (°C) | Nominal Case Size D*L(mm) | Leakage Current Max (uA) | D.F. MAX (%) | R.C 120 Hz (mA rms) | Load Life (hours) |
| P/N | P/N | | | | | | | | | | |
| | SK063M470E11PE89P50R | 47 | ±20 | 63 | 79 | 105 | 6.3*11 | 29 | 9 | 109 | 2000 |
| | SK400M1R0E11PE89P50R | 1 | ±20 | 400 | 450 | 105 | 6.3*11 | 32 | 25 | 38 | 2000 |

| | |
|---|--|
| REMARKS: | |
| 1. Leakage Current Test: | 6.3V~100V at 20°C for 2 minutes; 160V~500V at 20°C for 3 minutes; |
| 2. Operating temperature: | 6.3V~250V -40°C~ +105°C ;350V~500V -25°C~ +105°C ; |
| 3. Dissipation Factor Test: | at 20°C, 120 Hz. |
| 4. Capacitance Test: | at 20°C, 120 Hz. |
| 5. Ripple Current Test: | at 105°C, 120 Hz ; |
| 6. Load Life: | 2000hours,subjected to DC voltage with the rated ripple current is applied at 105°C. |
| Capacitance Change: | Within±20% of initial value; |
| tanδ: | 200% or less of initial specified value; |
| Leakage Current: | According to the specified value which stated in the catalogue to do the life testing; |
| 7. Shelf Life: | According to the specified value which stated in the catalogue to do the life testing; exposing them for 1000 hours 105°C without voltage applide. Before the measurement, the capacitor shall be preconditioned by applying voltage according to them 4.1 of JIS C5101-4. |
| Capacitance Change : | Within±20% of initial value; |
| tanδ: | 200% or less of initial specified value; |
| Leakage Current: | Initial specified value or less. |
| 8. when have characteristic requested : | Load life & shelf life test and etc. , judgment standard reference to our catalogue. |

| | | | | | | | | | | | | |
|---|--|------|------|------|------|------|---|------|------|------|---------|---------|
| ●SPECIFICATION | | | | | | | | | | | | |
| Voltage Range 工作電壓範圍 | 6.3V~100V | | | | | | 160V~500V | | | | | |
| Leakage Current 洩漏電流 | I ≤ 0.01CV or 3 (uA), Which is greater. (After 2 minutes application of working voltage) | | | | | | I ≤ 0.03CV + 20(uA), (After 3 minutes application of working voltage) | | | | | |
| Dissipation Factor 散逸因素 (損失角) (tan δ) | Measurement Frequency:120Hz. Temperature:20°C | | | | | | | | | | | |
| | Rate Voltage(V) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 80 | 100 | 160~250 | 350~500 |
| | tanδ (MAX) | 0.24 | 0.20 | 0.16 | 0.15 | 0.12 | 0.10 | 0.09 | 0.08 | 0.08 | 0.20 | 0.25 |
| | When nominal capacitance over 1000µF, tanδ shall be added 0.02 to the listed value with increase of every 1000µF . | | | | | | | | | | | |
| Standards 參照標準 | JIS C-5101-4(IEC 60384) | | | | | | | | | | | |

| | | | | | |
|---|-----------------|---------------|------|------|------|
| ●RIPPLE CURRENT COEFFICIENTS | | | | | |
| Frequency coefficient of allowable ripple current | | | | | |
| Rated Voltage(V) | Capacitance(uF) | Frequency(Hz) | | | |
| | | 50 | 120 | 1K | ≥20k |
| ≤ 100 | <100 | 0.75 | 1.00 | 1.40 | 1.50 |
| | 100~470 | 0.75 | 1.00 | 1.20 | 1.30 |
| | >470 | 0.85 | 1.00 | 1.10 | 1.15 |
| ≥ 160 | 0.47~470 | 0.75 | 1.00 | 1.10 | 1.50 |

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.
 Production date:2024.02.04