



Type SA Safety Standard Certified Lead Type Disc Ceramic Capacitors for General Purpose

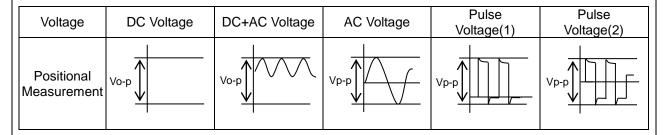
Product specifications in this catalog are as of Jun. 2019, and are subject to change or obsolescence without notice.

Please consult the approval sheet before ordering. Please read rating and Cautions first.

⚠ CAUTION

1. OPERATING VOLTAGE

When DC-rated capacitors are to be used in AC or ripple current circuits, be sure to maintain the Vp-p value of the applied voltage or the Vo-p which contains DC bias within the rated voltage range. When the voltage is started to apply to the circuit or it is stopped applying, the irregular voltage may be generated for a transit period because of resonance or switching. Be sure to use a capacitor within rated voltage containing these irregular voltage.



2. OPERATING TEMPERATURE AND SELF-GENERATED HEAT

Keep the surface temperature of a capacitor below the upper limit of its rated operating temperature range. Be sure to take into account the heat generated by the capacitor itself.

When the capacitor is used in a high-frequency current, pulse current or the like, it may have the self-generated heat due to dielectric-loss. Applied voltage should be the load such as self-generated heat is within 20 °C on the condition of atmosphere temperature 25 °C. When measuring, use a thermocouple of small thermal capacity-K of ϕ 0.1mm and be in the condition where capacitor is not affected by radiant heat of other components and wind of surroundings. Excessive heat may lead to deterioration of the capacitor's characteristics and reliability.(Never attempt to perform measurement with the cooling fan running. Otherwise, accurate measurement cannot be ensured.)

3. TEST CONDITION FOR WITHSTANDING VOLTAGE

(1) TEST EQUIPMENT

Test equipment for AC withstanding voltage should be used with the performance of the wave similar to 50/60 Hz sine wave.

If the distorted sine wave or over load exceeding the specified voltage value is applied, the defective may be caused.

(2) VOLTAGE APPLIED METHOD

When the withstanding voltage is applied, capacitor's lead or terminal should be firmly connected to the out-put of the withstanding voltage test equipment, and then the voltage should be raised from near zero to the test voltage.

If the test voltage without the raise from near zero voltage would be applied directly to capacitor, test voltage should be applied with the *zero cross. At the end of the test time, the test voltage should be reduced to near zero, and then capacitor's lead or terminal should be taken off the out-put of the withstanding voltage test equipment.

If the test voltage without the raise from near zero voltage would be applied directly to capacitor, the surge voltage may arise, and therefore, the defective may be caused.

*ZERO CROSS is the point where voltage sine wave pass 0V.

- See the right figure -

voltage sine wave

4. FAIL-SAFE

When capacitor would be broken, failure may result in a short circuit. Be sure to provide an appropriate fail-safe function like a fuse on your product if failure would follow an electric shock, fire or fume.

5. VIBRATION AND IMPACT

Do not expose a capacitor or its leads to excessive shock or vibration during use.

6. SOLDERING

When soldering this product to a PCB/PWB, do not exceed the solder heat resistance specification of the capacitor. Subjecting this product to excessive heating could melt the internal junction solder and may result in thermal shocks that can crack the ceramic element.

When soldering capacitor with a soldering iron, it should be performed in following conditions.

Temperature of iron-tip: 400 °C max. Soldering iron wattage: 50W max. Soldering time: 3.5s max.

7. BONDING, RESIN MOLDING AND COATING

In case of bonding, molding or coating this product, verify that these processes do not affect the quality of capacitor by testing the performance of the bonded, molded or coated product in the intended equipment.

In case of the amount of applications, dryness / hardening conditions of adhesives and molding resins containing organic solvents (ethyl acetate, methyl ethyl ketone, toluene, etc.) are unsuitable, the outer coating resin of a capacitor is damaged by the organic solvents and it may result, worst case, in a short circuit.

The variation in thickness of adhesive, molding resin or coating may cause a outer coating resin cracking and/or ceramic element cracking of a capacitor in a temperature cycling.

8. TREATMENT AFTER BONDING, RESIN MOLDING AND COATING

When the outer coating is hot (over 100 °C) after soldering, it becomes soft and fragile. So please be careful not to give it mechanical stress.

Failure to follow the above cautions may result, worst case, in a short circuit and cause fuming or partial dispersion when the product is used.

9. OPERATING AND STORAGE ENVIRONMENT

The insulating coating of capacitors does not form a perfect seal; therefore, do not use or store capacitors in a corrosive atmosphere, especially where chloride gas, sulfide gas, acid, alkali, salt or the like are present. And avoid exposure to moisture. Before cleaning, bonding, or molding this product, verify that these processes do not affect product quality by testing the performance of a cleaned, bonded or molded product in the intended equipment. Store the capacitors where the temperature and relative humidity do not exceed -10 to 40 °C and 15 to 85%.

Use capacitors within 6 months after delivered. Check the solderability after 6 months or more.

10. LIMITATION OF APPLICATIONS

Please contact us before using our products for the applications listed below which require especially high reliability for the prevention of defects which might directly cause damage to the third party's life, body or property.

- 1. Aircraft equipment
- 2. Aerospace equipment
- 3. Undersea equipment
- 4. Power plant control equipment
- 5. Medical equipment
- 6. Transportation equipment (vehicles, trains, ships, etc.)
- 7. Traffic signal equipment
- 8. Disaster prevention / crime prevention equipment
- 9. Data-processing equipment exerting influence on public
- Application of similar complexity and/or reliability requirements to the applications listed in the above.

NOTICE

1. CLEANING (ULTRASONIC CLEANING)

To perform ultrasonic cleaning, observe the following conditions.

Rinse bath capacity: Output of 20 watts per liter or less.

Rinsing time: 5 min maximum. Do not vibrate the PCB/PWB directly.

Excessive ultrasonic cleaning may lead to fatigue destruction of the lead wires.

2. CAPACITANCE CHANGE OF CAPACITORS

· Class 1 capacitors

Capacitance might change a little depending on a surrounding temperature or an applied voltage. Please contact us if you use for the strict time constant circuit.

· Class 2 and 3 capacitors

Class 2 and 3 capacitors like temperature characteristic B, E and F have an aging characteristic, whereby the capacitor continually decreases its capacitance slightly if the capacitor leaves for a long time. Moreover, capacitance might change greatly depending on a surrounding temperature or an applied voltage. So, it is not likely to be able to use for the time constant circuit.

Please contact us if you need a detail information.

3. PERFORMANCE CHECK BY EQUIPMENT

Before using a capacitor, check that there is no problem in the equipment's performance and the specifications.

Generally speaking, CLASS 2 ceramic capacitors have voltage dependence characteristics and temperature dependence characteristics in capacitance. So, the capacitance value may change depending on the operating condition in a equipment. Therefore, be sure to confirm the apparatus performance of receiving influence in a capacitance value change of a capacitor, such as leakage current and noise suppression characteristic.

Moreover, check the surge-proof ability of a capacitor in the equipment, if needed, because the surge voltage may exceed specific value by the inductance of the circuit.

⚠ NOTE

- 1.Please make sure that your product has been evaluated in view of your specifications with our product being mounted to your product.
- 2. You are requested not to use our product deviating from this specification.

EGD08E

1. Application

This specification is applied to Safety Standard Certified Lead Type Disc Ceramic Capacitors Type SA used for General Electric equipment.

Type SA is Safety Standard Certified capacitors of Class X1,Y2.

Do not use these products in any automotive power train or safety equipment including battery chargers for electric vehicles and plug-in hybrids.

Approval standard and certified number

| | Standard number | *Certified number | AC Rated volt. V(r.m.s.) |
|--------|-----------------|-------------------|-----------------------------|
| UL/cUL | UL60384-14 | E37921 | |
| ENEC | ENICO204 44 | 400,400,00 | X1:440 |
| (VDE) | EN60384-14 | 40042990 | Y2:400 |
| CQC | IEC60384-14 | CQC15001137840 | |

^{*}Above Certified number may be changed on account of the revision of standards and the renewal of certification.

2. Rating

2-1. Operating temperature range -40 ~ +125°C

2-2. Rated Voltage X1:AC440V(r.m.s.) Y2:AC400V(r.m.s.)

DC1kV

2-3. Part number configuration

| ex.) <u>DE2</u> | B3 | SA | 471 | K | _A3_ | B | Y02F |
|-----------------|----------------|------|-------------|-------------|------|------------|---------------|
| Product | Temperature | Туре | Capacitance | Capacitance | Lead | Packing | Individual |
| code | characteristic | name | | tolerance | code | style code | specification |

• Product code

DE2 denotes class X1,Y2.

•Temperature characteristic

| Code | Temperature characteristic |
|------|----------------------------|
| 1X | SL |
| B3 | В |
| E3 | Е |

Please confirm detailed specification on [Specification and test methods].

• Type name

This denotes safety certified type name Type SA.

• Capacitance

The first two digits denote significant figures; the last digit denotes the multiplier of 10 in pF. ex.) In case of 471.

$$47 \times 10^1 = 470 pF$$

• Capacitance tolerance

Please refer to [Part number list].

• Lead code

| Code | Lead style |
|------|----------------------------|
| A* | Vertical crimp long type |
| J* | Vertical crimp short type |
| N* | Vertical crimp taping type |

^{*} Please refer to [Part number list].

• Packing style code

| Code | Packing type |
|-------------|-----------------------|
| B Bulk type | |
| Α | Ammo pack taping type |

• Individual specification

In case part number cannot be identified without 'individual specification', it is added at the end of part number.

| o ona or part nambon. | | | | |
|-----------------------|---|--|--|--|
| Code | Specification | | | |
| Y02F | Rated voltage: X1:AC440V(r.m.s.) | | | |
| | lead wires: AC2600V(r.m.s.) | | | |

Note) Murata part numbers might be changed depending on lead code or any other changes. Therefore, please specify only the type name(SA) and capacitance of products in the parts list when it is required for applying safety standard of electric equipment.

3. Marking

Type name : SA

Nominal capacitance : Actual value(under 100pF)
3 digit system(100pF and over)

Capacitance tolerance : Code Class code and Rated voltage mark : **X1 440~**

Y2 400~

Manufacturing year : Letter code (The last digit of A.D. year.)

Manufacturing month : Code

 Feb./Mar. → 2
 Aug./Sep. → 8

 Apr./May. → 4
 Oct./Nov. → O

 Jun./Jul. → 6
 Dec./Jan. → D

Company name code : (Made in Thailand)

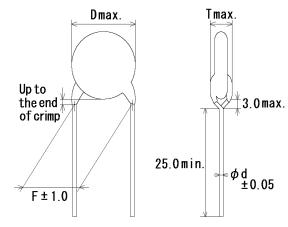
(Example)

SA 471K X1 440~ Y2 400~ 5D (M15

ETSA01B

4. Part number list

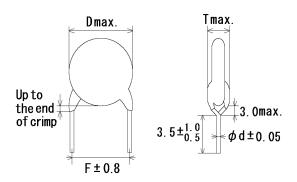
Vertical crimp long type (Lead code: A*)



Note) The mark '*' of lead code differ from lead spacing(F) and lead diameter(d).
Please see the following list about details.

| | | | | | | | | | Unit : | mm |
|------|-------|-----------|----------------------|--------------------|------|-------|------|------|--------|---------------|
| Τ.0 | Сар. | Сар. | 0 (| M (D (N) | Dir | nensi | Lead | Pack | | |
| T.C. | (pF) | tol. | Customer Part Number | Murata Part Number | D | Т | F | d | code | qty. (pcs) |
| SL | 10 | ±10% | | DE21XSA100KA3BY02F | 7.0 | 5.0 | 7.5 | 0.6 | А3 | 250 |
| SL | 15 | \pm 10% | | DE21XSA150KA3BY02F | 6.0 | 6.0 | 7.5 | 0.6 | А3 | 500 |
| SL | 22 | ±10% | | DE21XSA220KA3BY02F | 6.0 | 5.0 | 7.5 | 0.6 | А3 | 500 |
| SL | 33 | ±10% | | DE21XSA330KA3BY02F | 7.0 | 5.0 | 7.5 | 0.6 | А3 | 250 |
| SL | 47 | ±10% | | DE21XSA470KA3BY02F | 7.0 | 5.0 | 7.5 | 0.6 | А3 | 250 |
| SL | 68 | ±10% | | DE21XSA680KA3BY02F | 9.0 | 5.0 | 7.5 | 0.6 | А3 | 250 |
| В | 100 | ±10% | | DE2B3SA101KA3BY02F | 6.0 | 5.0 | 7.5 | 0.6 | А3 | 500 |
| В | 150 | ±10% | | DE2B3SA151KA3BY02F | 6.0 | 5.0 | 7.5 | 0.6 | А3 | 500 |
| В | 220 | ±10% | | DE2B3SA221KA3BY02F | 6.0 | 6.0 | 7.5 | 0.6 | А3 | 500 |
| В | 330 | \pm 10% | | DE2B3SA331KA3BY02F | 6.0 | 5.0 | 7.5 | 0.6 | А3 | 500 |
| В | 470 | \pm 10% | | DE2B3SA471KA3BY02F | 7.0 | 5.0 | 7.5 | 0.6 | А3 | 250 |
| В | 680 | \pm 10% | | DE2B3SA681KA3BY02F | 8.0 | 5.0 | 7.5 | 0.6 | А3 | 250 |
| Е | 1000 | ±20% | | DE2E3SA102MA3BY02F | 7.0 | 5.0 | 7.5 | 0.6 | А3 | 250 |
| Е | 1500 | ±20% | | DE2E3SA152MA3BY02F | 8.0 | 5.0 | 7.5 | 0.6 | А3 | 250 |
| Е | 2200 | ±20% | | DE2E3SA222MA3BY02F | 9.0 | 5.0 | 7.5 | 0.6 | А3 | 250 |
| Е | 3300 | ±20% | | DE2E3SA332MA3BY02F | 12.0 | 5.0 | 7.5 | 0.6 | А3 | 200 |
| Е | 4700 | ±20% | | DE2E3SA472MA3BY02F | 13.0 | 5.0 | 7.5 | 0.6 | A3 | 200 |
| Е | 10000 | \pm 20% | | DE2E3SA103MA3BY02F | 17.0 | 6.0 | 7.5 | 0.6 | А3 | 100 |

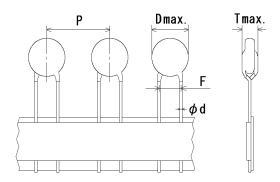
·Vertical crimp short type (Lead code: J*)



Note) The mark '*' of lead code differ from lead spacing(F) and lead diameter(d). Please see the following list about details.

Unit: mm Pack Dimension (mm) Lead Cap. Cap. T.C. Customer Part Number Murata Part Number qty. (pF) tol. code F D Т d (pcs) DE21XSA100KJ3BY02F 7.0 7.5 J3 SL 10 $\pm 10\%$ 5.0 0.6 500 SL 15 $\pm 10\%$ DE21XSA150KJ3BY02F 6.0 6.0 7.5 0.6 J3 500 DE21XSA220KJ3BY02F SL 22 $\pm 10\%$ 6.0 5.0 7.5 0.6 J3 500 DE21XSA330KJ3BY02F 7.0 7.5 SI 33 ±10% 5.0 0.6 J3 500 SI 47 DE21XSA470KJ3BY02F 7.0 7.5 J3 500 $\pm 10\%$ 5.0 0.6 SL 68 $\pm 10\%$ DE21XSA680KJ3BY02F 9.0 5.0 7.5 0.6 J3 500 100 7.5 В $\pm 10\%$ DE2B3SA101KJ3BY02F 6.0 5.0 0.6 J3 500 В 150 $\pm 10\%$ DE2B3SA151KJ3BY02F 6.0 7.5 J3 500 5.0 0.6 В 220 $\pm 10\%$ DE2B3SA221KJ3BY02F 6.0 6.0 7.5 J3 500 0.6 В 330 $\pm 10\%$ DE2B3SA331KJ3BY02F 6.0 5.0 7.5 0.6 J3 500 В 470 $\pm 10\%$ DE2B3SA471KJ3BY02F 7.0 5.0 7.5 0.6 J3 500 В 680 $\pm 10\%$ DE2B3SA681KJ3BY02F 8.0 5.0 7.5 0.6 J3 500 7.5 Ε 1000 $\pm 20\%$ DE2E3SA102MJ3BY02F 5.0 J3 500 7.0 0.6 7.5 Ε 1500 8.0 5.0 0.6 J3 500 $\pm 20\%$ DE2E3SA152MJ3BY02F Е 2200 $\pm 20\%$ DE2E3SA222MJ3BY02F 9.0 5.0 7.5 0.6 J3 500 Е 3300 $\pm 20\%$ DE2E3SA332MJ3BY02F 12.0 5.0 7.5 0.6 J3 250 Ε 4700 $\pm 20\%$ DE2E3SA472MJ3BY02F 13.0 7.5 0.6 J3 250 5.0 10000 Ε DE2E3SA103MJ3BY02F 17.0 7.5 0.6 J3 200 $\pm 20\%$ 6.0

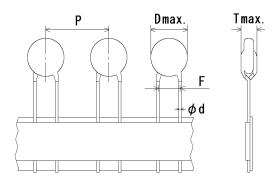
Vartical crimp taping type (Lead code:N*)



Note) The mark '*' of lead code differ from lead spacing(F), lead diameter(d) and pitch of component(P). Please see the following list or taping specification about details.

| | Offit : Hilli | | | | | | | | 111111 | | | |
|------|---------------|------|----------------------|-------------------------|------|---------------|-----|-----|--------|-------|---------------|------|
| T.C. | Сар. | Сар. | Customer Part Number | Murata Part Number | | Dimension (mm | | | (mm |) Lea | | Pack |
| 1.0. | (pF) | tol. | Customer Fait Number | IVIUIAIA FAIT INUIIIDEI | D | Т | F | d | Р | code | qty. (pcs) | |
| SL | 10 | ±10% | | DE21XSA100KN3AY02F | 7.0 | 5.0 | 7.5 | 0.6 | 15.0 | N3 | 900 | |
| SL | 15 | ±10% | | DE21XSA150KN3AY02F | 6.0 | 6.0 | 7.5 | 0.6 | 15.0 | N3 | 900 | |
| SL | 22 | ±10% | | DE21XSA220KN3AY02F | 6.0 | 5.0 | 7.5 | 0.6 | 15.0 | N3 | 900 | |
| SL | 33 | ±10% | | DE21XSA330KN3AY02F | 7.0 | 5.0 | 7.5 | 0.6 | 15.0 | N3 | 900 | |
| SL | 47 | ±10% | | DE21XSA470KN3AY02F | 7.0 | 5.0 | 7.5 | 0.6 | 15.0 | N3 | 900 | |
| SL | 68 | ±10% | | DE21XSA680KN3AY02F | 9.0 | 5.0 | 7.5 | 0.6 | 15.0 | N3 | 900 | |
| В | 100 | ±10% | | DE2B3SA101KN3AY02F | 6.0 | 5.0 | 7.5 | 0.6 | 15.0 | N3 | 900 | |
| В | 150 | ±10% | | DE2B3SA151KN3AY02F | 6.0 | 5.0 | 7.5 | 0.6 | 15.0 | N3 | 900 | |
| В | 220 | ±10% | | DE2B3SA221KN3AY02F | 6.0 | 6.0 | 7.5 | 0.6 | 15.0 | N3 | 900 | |
| В | 330 | ±10% | | DE2B3SA331KN3AY02F | 6.0 | 5.0 | 7.5 | 0.6 | 15.0 | N3 | 900 | |
| В | 470 | ±10% | | DE2B3SA471KN3AY02F | 7.0 | 5.0 | 7.5 | 0.6 | 15.0 | N3 | 900 | |
| В | 680 | ±10% | | DE2B3SA681KN3AY02F | 8.0 | 5.0 | 7.5 | 0.6 | 15.0 | N3 | 900 | |
| Е | 1000 | ±20% | | DE2E3SA102MN3AY02F | 7.0 | 5.0 | 7.5 | 0.6 | 15.0 | N3 | 900 | |
| Е | 1500 | ±20% | | DE2E3SA152MN3AY02F | 8.0 | 5.0 | 7.5 | 0.6 | 15.0 | N3 | 900 | |
| Е | 2200 | ±20% | | DE2E3SA222MN3AY02F | 9.0 | 5.0 | 7.5 | 0.6 | 15.0 | N3 | 900 | |
| Ε | 3300 | ±20% | | DE2E3SA332MN3AY02F | 12.0 | 5.0 | 7.5 | 0.6 | 15.0 | N3 | 900 | |
| Е | 4700 | ±20% | | DE2E3SA472MN3AY02F | 13.0 | 5.0 | 7.5 | 0.6 | 15.0 | N3 | 900 | |

Vartical crimp taping type (Lead code:N*)



Note) The mark '*' of lead code differ from lead spacing(F), lead diameter(d) and pitch of component(P). Please see the following list or taping specification about details.

| TC | Сар. | Сар. | Customer Part Number | Customer Part Number Murata Part Number | | Dimension (mm) | | | | | Pack |
|------|-------|------|----------------------|---|------|----------------|-----|-----|------|------|---------------|
| 1.0. | (pF) | tol. | Customer Fait Number | IVIUIAIA FAIT INUIIIDEI | D | Т | F | d | Р | code | qty. (pcs) |
| Е | 10000 | ±20% | | DE2E3SA103MN7AY02F | 17.0 | 6.0 | 7.5 | 0.6 | 30.0 | N7 | 400 |

| | | | 1/6 | eference only | | | |
|-----|--------------------------------|--------------------|---|----------------------|---|--|--|
| | ecification and test | | _ | ification | The star and and | | |
| No. | Item Appearance and dimensions | | | ect on appearance | Test method The capacitor should be inspected by naked eyes | | |
| ı | Appearance and dimensions | | form and dime | | for visible evidence of defect. | | |
| | | | | [Part number list]. | Dimensions should be measured with slide calipers. | | |
| 2 | Marking | | To be easily leg | • | The capacitor should be inspected by naked eyes. | | |
| 3 | Dielectric | Between lead | No failure. | | The capacitor should not be damaged when | | |
| | strength wires | | | | AC2600V(r.m.s.) <50/60Hz> is applied between | | |
| | | Dody | No failure. | | the lead wires for 60 s. First, the terminals of the capacitor should be | | |
| | | Body insulation | No failure. | | connected together. | | |
| | | in out at on | | | Then, a metal foil should | | |
| | | | | | be closely wrapped around | | |
| | | | | | the body of the capacitor Metal About About A foil A mr | | |
| | | | | | to the distance of | | |
| | | | | | about 3 to 4mm | | |
| | | | | | Then, the capacitor should be inserted into a | | |
| | | | | | container filled with metal balls of about 1mm | | |
| | | | | | diameter. Finally, AC2600V (r.m.s.)<50/60Hz> is | | |
| | | | | | applied for 60 s between the capacitor lead wires and metal balls. | | |
| 4 | Insulation Resista | nce (I.R.) | 10000MΩ min. | | The insulation resistance should be measured | | |
| | | ` / | | | with DC500±50V within 60±5 s of charging. | | |
| | | | | | The voltage should be applied to the capacitor | | |
| _ | | | | | through a resistor of $1M\Omega$. | | |
| 5 | Capacitance | | Within specified tolerance. | | The capacitance should be measured at 20°C with | | |
| 6 | Dissipation Factor | (DE) | 2.5% max. | | 1±0.1kHz and AC1±0.2V(r.m.s.) max The dissipation factor should be measured | | |
| U | יייספועם ווטוז Factol | (0.1.) | 2.5% max. | | at 20°C with 1±0.1kHz and AC1±0.2V(r.m.s.) max | | |
| 7 | Tomporation | o oto rioti - | 01- 01- 5= | 0.1- 4000 /20 | , , | | |
| 7 | Temperature char | acteristic | Char. SL: +350 to -1000 pm/°C (Temp. range: +20 to +85°C) | | The capacitance measurement should be made at each step specified in Table. | | |
| | | | Char. B : Within ±10 % | | each step specified in Table. | | |
| | | | Char. E : Within ±10 /6 | | | | |
| | | | (Temp. range : | | | | |
| | | | , , | , | · · | | |
| | | | | • | 1 2 3 4 5 | | |
| | | | | Temp.(°C) 20 | 0±2 -25±2 20±2 85±2 20±2 | | |
| 8 | Active flammabilit | V | The cheese-clo | oth should not be on | The capacitors should be individually wrapped in at | | |
| | | | fire. | | least one but more than two complete layers of | | |
| | | | | | cheese-cloth. The capacitor should be subjected to | | |
| | | | | | 20 discharges. The interval between successive discharges should be 5 s. The UAc should be | | |
| | | | | | maintained for 2min after the last discharge. | | |
| | | | | | o. | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | Tr | | |
| | | | | | <u> </u> | | |
| | | | | | Osciloscope | | |
| | | | | | C1,2 : 1μF±10%, C3 : 0.033μF±5% 10kV | | |
| | | | | | L1 to L4 : 1.5mH±20% 16A Rod core choke | | |
| | | | | | R : $100\Omega\pm2\%$, Ct : 3μ F $\pm5\%$ 10kV UAc : UR $\pm5\%$ UR : Rated working voltage | | |
| | | | | | Cx : Capacitor under test | | |
| | | | | | F : Fuse, Rated 10A | | |
| | | | | | Ut : Voltage applied to Ct | | |
| | | | | | Ux | | |
| | | | | | 5kV 🗍 | | |
| | | | | | V V | | |
| | | | | | | | |
| | | | | | time | | |
| | | | | | unv | | |
| | | | <u> </u> | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

| | | | Reference only | |
|--------|----------------------------|---------------------|--|--|
| No. | Item | | Specification | Test method |
| 9 | Robustness of terminations | Tensile | Lead wire should not cut off. Capacitor should not be broken. | Fix the body of capacitor, apply a tensile weight gradually to each lead wire in the radial direction of capacitor up to 10N and keep it for 10±1 s. |
| | | Bending | | With the termination in its normal position, the capacitor is held by its body in such a manner that the axis of the termination is vertical; a mass applying a force of 5N is then suspended from the end of the termination. The body of the capacitor is then inclined, within a period of 2 to 3 s, through an angle of about 90° in the vertical plane and then returned to its initial position over the same period of time; this operation constitutes one bend. One bend immediately followed by a second bend in the opposite direction. |
| 10 | Vibration | Appearance | No marked defect. | The capacitor should be firmly soldered to the |
| | resistance | Capacitance D.F. | Within the specified tolerance. 2.5% max. | supporting lead wire and vibration which is 10 to 55Hz in the vibration frequency range,1.5mm in total amplitude, and about 1min in the rate of vibration change from 10Hz to 55Hz and back to 10Hz is applied for a total of 6 h; 2 h each in 3 mutually perpendicular directions. |
| 11 | Solderability of lead | S | Lead wire should be soldered with uniformly coated on the axial direction over 3/4 of the circumferential direction. | The lead wire of a capacitor should be dipped into a ethanol solution of 25wt% rosin and then into molten solder for 2±0.5 s. In both cases the depth of dipping is up to about 1.5 to 2.0mm from the root of lead wires. Temp. of solder: 245±5°C Lead Free Solder (Sn-3Ag-0.5Cu) |
| 12 | Soldering effect | Appearance | No marked defect. | Solder temperature: 350±10°C or 260±5°C |
| | (Non-preheat) | Capacitance change | Within ±10% | Immersion time : 3.5±0.5 s (In case of 260±5°C : 10±1 s) |
| | | I.R. Dielectric | 1000M Ω min. | The depth of immersion is up to about 1.5 to 2.0mm from the root of lead wires. |
| 13 | Soldering effect | strength | No marked defect. | Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 1 to 2 h at *1room condition. First the capacitor should be stored at 120+0/-5°C |
| | (On-preheat) | Capacitance | Within ±10% | for 60+0/-5 s. Then, as in figure, the lead wires should be |
| | | change I.R. | 1000MO min | immersed solder of 260+0/-5°C up to 1.5 to 2.0mm |
| | | Dielectric | 1000MΩ min. Per item 3 | from the root of terminal for 7.5+0/-1 s. |
| *1 "ro | om condition" Tempe | strength | C, Relative humidity: 45 to 75%, Atmo | Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 1 to 2 h at *1room condition. |
| 1 | · | | - | • |

| | | | Reference only | |
|-----|-------------------------------------|--|--|---|
| No. | Item | า | Specification | Test method |
| 14 | Flame test | | The capacitor flame discontinue as follows. Cycle Time 1 to 4 30 s max. 5 60 s max. | The capacitor should be subjected to applied flame for 15 s. and then removed for 15 s until 5 cycle. |
| 15 | Passive flammabili | ty | The burning time should not be exceeded the time 30 s. The tissue paper should not ignite. | The capacitor under test should be held in the flame in the position which best promotes burning. Time of exposure to flame is for 30 s. Length of flame: 12±1mm Gas burner: Length 35mm min. Inside Dia. 0.5±0.1mm Outside Dia. 0.9mm max. Gas: Butane gas Purity 95% min. About 8mm Gas burner About 10mm thick board |
| 16 | Humidity (Under steady state) | Appearance Capacitance change D.F. I.R. Dielectric strength | No marked defect. Char. SL: Within $\pm 5\%$ Char. B: Within $\pm 10\%$ Char. E: Within $\pm 15\%$ Char. SL: 2.5% max. Char. B, E: 5.0% max. $3000M\Omega$ min. Per item 3 | Set the capacitor for 500±12 h at 40±2°C in 90 to 95% relative humidity. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 1 to 2 h at *1 room condition. |
| 17 | Humidity loading | Appearance Capacitance change D.F. I.R. Dielectric strength | No marked defect. Char. SL: Within ±5% Char. B: Within ±10% Char. E: Within ±15% Char. SL: 2.5% max. Char. B, E: 5.0% max. 3000MΩ min. Per item 3 | Apply AC440V(r.m.s.) for 500±12 h at 40±2°C in 90 to 95% relative humidity. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 1 to 2 h at *1room condition. |

^{*1 &}quot;room condition" Temperature: 15 to 35°C, Relative humidity: 45 to 75%, Atmospheric pressure: 86 to 106kPa

| Capacitance change I.R. 3000MΩ min. Dielectric strength Per item 3 | Appearance No marked defect. Impulse voltage Each individual capacitor should be subjected a 8kV impulses for three times. Then the capare are applied to life test. 100 | Appearance No marked defect. Impulse voltage Each individual capacitor should be subjected to a 8kV impulses for three times. Then the capacitors are applied to life test. | Life Appearance No marked defect. Impulse voltage Each individual capacitor should be subjected to a Rehample R. 3000ΜΩ min. | Appearance Capacitance change I.R. Dielectric strength Appearance Capacitance change D.F. I.R. Dielectric | Parance No marked defect. Within ±20% 3000MΩ min. Per item 3 | Impulse voltage Each individual capacitor should be subjected to a 8kV impulses for three times. Then the capacitor are applied to life test. 100 (%) 90 1 1.7 \(\mu \) = 1.67T 1 1 1 1 1 1 1 1 1 | | | |
|--|---|--|---|--|---|--|--|-----------------------|---|
| Capacitance change I.R. 3000MΩ min. Dielectric strength Per item 3 | Capacitance change I.R. 3000MΩ min. | Capacitance change T.R. 3000MΩ min. | Sepacitance change I.R. 3000MΩ min. Dielectric strength Per item 3 | Capacitance change I.R. Dielectric strength Appearance Capacitance change D.F. I.R. Dielectric | arance No marked defect. The strict of the | Each individual capacitor should be subjected to a 8kV impulses for three times. Then the capacitor are applied to life test. 100 (%) 100 (% | | | |
| Change I.R. 3000MΩ min. | Change I.R. 3000MΩ min. | change I.R. Jicelectric strength Per item 3 The capacitors are placed in a circulating air oven for a period of 1000 h. The air in the oven is maintained at a temperature of 125+2/-0 °C, and relative humidity of 50% max. Throughout the test, the capacitors are subjected to a AC680V(r.m.s.) < 50/60Hz- alternating voltage of mains frequency, except that once each hour the voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at *¹room condition for 24±2 h before initial measurements. (Do not apply to Char. St.) Post-treatment: Capacitor should be stored for 24±2 h at *¹room condition for 24±2 h before initial measurements. (Do not apply to Char. St.) Post-treatment : Capacitor should be stored for 24±2 h at *¹room condition for 24±2 h before initial measurements. (Do not apply to Char. St.) Post-treatment : Capacitor should be stored for 24±2 h at *¹room condition. The capacitor should be stored for 24±2 h at *¹room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Char. B. Within ±20% Char. B. Within ±20% Char. B. Within ±20% Char. B. Within ±20% D.F. Char. St. Vithin ±20% Char. B. Within ± | Section Per item 3 Per item 4 Per item 5 Per item 6 Per item 7 Per item 6 Per item 6 Per item 7 Per item 7 Per item 7 Per item 7 Per item 8 Per item 8 Per item 8 Per item 9 Per item 1 Per item 9 Per item 1 Per item 2 Per item 1 Per item 2 Per item 1 Per item 2 Per item 2 Per item 2 Per item 3 Per item 4 Per i | e and Appearance Capacitance change D.F. I.R. Dielectric strength | 3000MΩ min. Per item 3 Per item 4 P | a 8kV impulses for three times. Then the capacitor are applied to life test. 100 (%) Front time (T1) = 1.7 \(\mu \) s=1.67T Time to half-value (T2) = 50 \(\mu \) s Time to half-value (T2) = 50 \(\mu \) s Time to half-value (T2) = 50 \(\mu \) s Time to half-value (T2) = 50 \(\mu \) s Time to half-value (T2) = 50 \(\mu \) s Time to half-value (T2) = 50 \(\mu \) s Time to half-value (T2) = 50 \(\mu \) s Time to half-value (T2) = 50 \(\mu \) s Time to half-value (T2) = 50 \(\mu \) s The air in the oven is maintained at a temperature of 125+2/-0 °C, and relative humidity of 50% max Throughout the test, the capacitors are subjected to a AC680V(r.m.s.) c50/60Hz> alternating voltage of mains frequency, except that once each hour the voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment : Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) c60s then place at *1 room condition for 24±2 h before initial measurements. (Do not apply to Char. SL.) Post-treatment : Capacitor should be stored for 24±2 h at *1 room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. ±10% | | | |
| I.R. | I.R. 3000MΩ min. Dielectric strength Per item 3 Front time (T1) = 1.7 μ = 1. The capacitors are placed in a circulating air for a period of 1000 h. The air in the oven is maintained at a tempera of 125±2/-0 for 1 h, and apply to a AC880V(r.m.s.) < 5006Hzs alternating vo of mains frequency, except that once each hot voltage is increased to AC1000V(r.m.s.) for 0 Pre-treatment : Capacitors should be stored a 125±2/-0 for 1 h, and apply to Ac2000V(r.m.s.) for 0 Pre-treatment : Capacitor should be stored a 125±2/-0 for 1 h, and apply to Char. St.) Post-treatment : Capacitor should be stored a 125±2/-0 for initial measurements (Do not apply to Char. St.) Post-treatment : Capacitor should be stored for 24±2 h at "froom condition. | I.R. 3000MΩ min. Dielectric strength Per item 3 The capacitors are placed in a circulating air oven for a period of 1000 h. The air in the oven is maintained at a temperature of 125±20 °C, and relative humidity of 50% max. Throughout the test, the capacitors are subjected to a AC860V(r.m.s.) 60% then placed of a AC860V(r.m.s.) 60% then placed at *1°come condition for 24±2 h at *1°come condition for 24±2 h at *1°come condition. Persture and ersion cycle Capacitance Change Char. St.: Within ±10% Char. E.: Within ±10% Char. E.: Within ±10% Char. B.: Within ±10 | I.R. | e and Appearance change D.F. I.R. Dielectric strength | 3000MΩ min. Per item 3 Per item 4 P | are applied to life test. 100 | | | |
| Dielectric strength Per item 3 Per item 3 The capacitors are placed in a circulatifor a period of 1000 h. The air in the oven is maintained at at of 125+22-0 °C, and relative humidity of Throughout the test, the capacitors are to a AC680V(r.m.s.)-60/60Hz> alterna of mains frequency, expet that once evoltage is increased to AC1000V(r.m.s.) 60s at "froom condition for before initial measure (Do not apply to Char Ac2000V(r.m.s.) 60s at "loom condition for before initial measure (Do not apply to Char B. Within ±10% Char. B. Within ±20% Char. B. Within ±20% Char. B. E. 5.0% max. Char. B, E. 5.0% max. I.R. 3000MΩ min. Dielectric strength Per item 3 Prost-treatment: Capacitor should be subjected to 5 temperature cycles, then consecutively immersion cycles. Capacitance Char. B. E. 5.0% max. Char. B, E. 5.0% max. Char. B. E. Within ±20% Char. E. Step Temperature cycles. Capacitance Char. S. E. Char. S. E. Within ±6% change Char. E. Within ±6% Char. B. Within ±10% Char. E. Within ±20% Char. E | Dielectric strength Per item 3 Front time (T1) = 1.7 μ s=1. | Dielectric strength Per item 3 Dielectric strength Per item 3 Per item 3 The capacitors are placed in a circulating air oven for a period of 1000 h. The air in the oven is maintained at a temperature of 125+2/-0 °C, and relative humidity of 50% max. Throughout the test, the capacitors are subjected to a AC680V(r.m.s.) colored-red red red red red red red red red red | Delectric strength Per item 3 Delectric strength Per item 3 Delectric strength The capacitors are placed in a circulating air over for a period of 1000 h. The air in the oven is maintained at a temperatur of 125±27-0°C, and relative humidity of 50% max Throughout the test, the act 1000 V(r.m.s.) to 50% the place at "1000 mains frequency, except that once each hour the voltage is increased to AC680V(r.m.s.) 60% then place at "1000 m condition for 2±2.2 h before initial measurements. (Do not apply to Char. St. 12 5% max. Char. B. : Within ±20% Char. B. : Within ±20% Char. B. : Within ±20% Char. St. 12 5% max. Char. B. E. : 5.0% max. 1.R. 3000MΩ min. Dielectric strength Dielectric strengt | Dielectric strength Appearance Capacitance change D.F. I.R. Dielectric | Per item 3 | The capacitors are placed in a circulating air over for a period of 1000 h. The air in the oven is maintained at a temperatur of 125+2/-0 °C, and relative humidity of 50% may Throughout the test, the capacitors are subjected to a AC680V(r.m.s.)<50/60Hz> alternating voltage of mains frequency, except that once each hour troltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1 room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 24±2 h at *1 room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. **Temperature cycles** Temperature cyc | | | |
| The capacitors are placed in a circulati for a period of 1000 h. The air in the oven is maintained at at of 125+2/-0 °C, and relative humidity of Throughout the test, the capacitors are to a AC680V(r.m.s.)-50/60Hz> alterna of mains frequency, except that once e voltage is increased to AC1000V(r.m.s.) 60s at "room condition to before initial measure (Do not apply to Cha Post-treatment: Capacitor should be st 125±2°C for 1 h, and AC2000V(r.m.s.) 60s at "room condition to before initial measure (Do not apply to Cha Post-treatment: Capacitor should be st 125±2°C for 1 h, and AC2000V(r.m.s.) 60s at "troom condition to before initial measure (Do not apply to Cha Post-treatment: Capacitor should be subjected to 5 temperature cycles, then consecutively immersion cycles. Char. B.: Within ±5% char. B.: Within ±20% Char. E.: Within ±20% Char. E.: Within ±20% Char. E.: Within ±20% Char. B. E.: 50% max. I.R. 3000MΩ min. Dielectric strength Per item 3 Time to half-value 125±2°C for 1 h, and AC2000V(r.m.s.) 60s at "troom condition for before initial measure (Do not apply to Cha Post-treatment: Capacitor should be subjected to 5 temperature cycles, then consecutively immersion cycles. Char. B.: Within ±5% char. B.: Within ±20% Char. B.: With | Temperature and immersion cycle Temperature and immersion cycle D.F. Char. S.L.: Within ±5% Char. B.: Within ±10% Char. S.L.: 2.5% max. Char. B., E.: 5.0% max. Char. B., E.: 5.0% max. Dielectric strength The capacitors are placed in a circulating air for a period of 1000 h. The air in the oven is maintained at a temper of 125+22-0 °C, and relative humidity of 50% Throughout the est, the capacitors are subjet to a AC680V(r.m.s.) <a "1room="" (do="" (t2)="50" +="" 0="" 1="" 125="" 125±2°c="" 15="" 1room="" 23="" 24±2="" 3000mω="" 5.0%="" 60s="" :="" ac2000v(r.m.s.),="" and="" apply="" at="" b.="" be="" before="" capacitor="" char.="" charge="" condition="" condition.="" cycle="" cycles="" d.f.="" dielectric="" e.="" for="" h="" h,="" half-value="" href="mailto:specific specific s</td><td>The capacitor sare placed in a circulating air oven for a period of 1000 h. The air in the oven is maintained at a temperature of 125+2/-0 °C, and relative humidity of 50% max. Throughout the test, the capacitors are subjected to a AC680V(r.m.s.)-50/60Hz> alternating voltage of mains frequency, except that once each hour the voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.), 60s then placed at " initial="" is="" l.r.="" max.="" measurements.="" min="" min.="" not="" placed="" post-treatment:="" s="" should="" st.="" st.)="" stored="" strength="" td="" the="" then="" time="" time:500="" to="" water="" water<="" within="" ±10%="" ±20%="" ±5%="" µs="" ·=""><td>Time to half-value (T2) = 50 µs or 1 me to half-val</td><td>e and Appearance Capacitance change D.F. I.R. Dielectric</td><td>earance No marked defect. citance ge Char. SL: Within ±5% Char. B: Within ±10% Char. E: Within ±20% Char. SL: 2.5% max. Char. B, E: 5.0% max. 3000MΩ min. Per item 3</td><td>Time to half-value (T2) = 50 µs Time to half-value (T2) = 50 µs The capacitors are placed in a circulating air over for a period of 1000 h. The air in the oven is maintained at a temperatur of 125+2/-0 °C, and relative humidity of 50% may Throughout the test, the capacitors are subjected to a AC680V(r.m.s.)<50/60Hz> alternating voltage of mains frequency, except that once each hour the voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1 room condition for 24±2 h before initial measurements. (Do not apply to Char. SL.) Post-treatment: Capacitor should be stored for 24±2 h at *1 room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. ±20% max. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. 2 Room temp. 3 min 3 min 4 Room temp. 3 min 3 h125+3/-0 30 min 4 Room temp. 3 min 50 min 50</td> | Time to half-value (T2) = 50 µs or 1 me to half-val | e and Appearance Capacitance change D.F. I.R. Dielectric | earance No marked defect. citance ge Char. SL: Within ±5% Char. B: Within ±10% Char. E: Within ±20% Char. SL: 2.5% max. Char. B, E: 5.0% max. 3000MΩ min. Per item 3 | Time to half-value (T2) = 50 µs Time to half-value (T2) = 50 µs The capacitors are placed in a circulating air over for a period of 1000 h. The air in the oven is maintained at a temperatur of 125+2/-0 °C, and relative humidity of 50% may Throughout the test, the capacitors are subjected to a AC680V(r.m.s.)<50/60Hz> alternating voltage of mains frequency, except that once each hour the voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1 room condition for 24±2 h before initial measurements. (Do not apply to Char. SL.) Post-treatment: Capacitor should be stored for 24±2 h at *1 room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. ±20% max. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. 2 Room temp. 3 min 3 min 4 Room temp. 3 min 3 h125+3/-0 30 min 4 Room temp. 3 min 50 | | | | |
| The capacitors are placed in a circulati for a period of 1000 h. The air in the oven is maintained at at of 125+2/-0 °C, and relative humidity of Throughout the test, the capacitors are to a AC680V(r.m.s.)-50/60Hz> alterna of mains frequency, except that once e voltage is increased to AC1000V(r.m.s.) 60s at "room condition to before initial measure (Do not apply to Cha Post-treatment: Capacitor should be st 125±2°C for 1 h, and AC2000V(r.m.s.) 60s at "room condition to before initial measure (Do not apply to Cha Post-treatment: Capacitor should be st 125±2°C for 1 h, and AC2000V(r.m.s.) 60s at "troom condition to before initial measure (Do not apply to Cha Post-treatment: Capacitor should be subjected to 5 temperature cycles, then consecutively immersion cycles. Char. B.: Within ±5% char. B.: Within ±20% Char. E.: Within ±20% Char. E.: Within ±20% Char. E.: Within ±20% Char. B. E.: 50% max. I.R. 3000MΩ min. Dielectric strength Per item 3 Time to half-value 125±2°C for 1 h, and AC2000V(r.m.s.) 60s at "troom condition for before initial measure (Do not apply to Cha Post-treatment: Capacitor should be subjected to 5 temperature cycles, then consecutively immersion cycles. Char. B.: Within ±5% char. B.: Within ±20% Char. B.: With | Temperature and immersion cycle Temperature and immersion cycle D.F. Char. S.L.: Within ±5% Char. B.: Within ±10% Char. S.L.: 2.5% max. Char. B., E.: 5.0% max. Char. B., E.: 5.0% max. Dielectric strength The capacitors are placed in a circulating air for a period of 1000 h. The air in the oven is maintained at a temper of 125+22-0 °C, and relative humidity of 50% Throughout the est, the capacitors are subjet to a AC680V(r.m.s.) <a "1room="" (do="" (t2)="50" +="" 0="" 1="" 125="" 125±2°c="" 15="" 1room="" 23="" 24±2="" 3000mω="" 5.0%="" 60s="" :="" ac2000v(r.m.s.),="" and="" apply="" at="" b.="" be="" before="" capacitor="" char.="" charge="" condition="" condition.="" cycle="" cycles="" d.f.="" dielectric="" e.="" for="" h="" h,="" half-value="" href="mailto:specific specific s</td><td>The capacitor sare placed in a circulating air oven for a period of 1000 h. The air in the oven is maintained at a temperature of 125+2/-0 °C, and relative humidity of 50% max. Throughout the test, the capacitors are subjected to a AC680V(r.m.s.)-50/60Hz> alternating voltage of mains frequency, except that once each hour the voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.), 60s then placed at " initial="" is="" l.r.="" max.="" measurements.="" min="" min.="" not="" placed="" post-treatment:="" s="" should="" st.="" st.)="" stored="" strength="" td="" the="" then="" time="" time:500="" to="" water="" water<="" within="" ±10%="" ±20%="" ±5%="" µs="" ·=""><td>Time to half-value (T2) = 50 µs or 1 me to half-val</td><td>e and Appearance Capacitance change D.F. I.R. Dielectric</td><td>earance No marked defect. Incitance ge Char. SL: Within ±5% Char. B: Within ±10% Char. E: Within ±20% Char. SL: 2.5% max. Char. B, E: 5.0% max. 3000MΩ min. Per item 3</td><td>Time to half-value (T2) = 50 µs Time to half-value (T2) = 50 µs The capacitors are placed in a circulating air over for a period of 1000 h. The air in the oven is maintained at a temperatur of 125+2/-0 °C, and relative humidity of 50% may Throughout the test, the capacitors are subjected to a AC680V(r.m.s.)<50/60Hz> alternating voltage of mains frequency, except that once each hour the voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1 room condition for 24±2 h before initial measurements. (Do not apply to Char. SL.) Post-treatment: Capacitor should be stored for 24±2 h at *1 room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. ±20% max. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. 2 Room temp. 3 min 3 min 4 Room temp. 3 min 3 h125+3/-0 30 min 4 Room temp. 3 min 50 min 50</td> | Time to half-value (T2) = 50 µs or 1 me to half-val | e and Appearance Capacitance change D.F. I.R. Dielectric | earance No marked defect. Incitance ge Char. SL: Within ±5% Char. B: Within ±10% Char. E: Within ±20% Char. SL: 2.5% max. Char. B, E: 5.0% max. 3000MΩ min. Per item 3 | Time to half-value (T2) = 50 µs Time to half-value (T2) = 50 µs The capacitors are placed in a circulating air over for a period of 1000 h. The air in the oven is maintained at a temperatur of 125+2/-0 °C, and relative humidity of 50% may Throughout the test, the capacitors are subjected to a AC680V(r.m.s.)<50/60Hz> alternating voltage of mains frequency, except that once each hour the voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1 room condition for 24±2 h before initial measurements. (Do not apply to Char. SL.) Post-treatment: Capacitor should be stored for 24±2 h at *1 room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. ±20% max. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. 2 Room temp. 3 min 3 min 4 Room temp. 3 min 3 h125+3/-0 30 min 4 Room temp. 3 min 50 | | | | |
| The capacitors are placed in a circulati for a period of 1000 h. The air in the oven is maintained at at of 125+2'-0 °C, and relative humidity of Throughout the test, the capacitors are to a AC680V(r.m.s.) and relative humidity of Throughout the test, the capacitors are to a AC680V(r.m.s.) and relative humidity of Throughout the test, the capacitors are to a AC680V(r.m.s.) and relative humidity of Throughout the test, the capacitors are to a AC680V(r.m.s.) and relative humidity of Throughout the test, the capacitors are to a AC680V(r.m.s.) and relative humidity of Throughout the test, the capacitors are placed in a circulatifor a period of 1000 h. The air in the oven is maintained at at of 125+2'-0 °C, and relative humidity of Throughout the test, the capacitors are placed in a circulatifor a period of 1000 h. The air in the oven is maintained at at of 125+2'-0 for 1 h, and AC2000V(r.m.s.) for a prevent of the single place of the prevent of maintained at at of 125+2'-0 for 1 h, and AC2000V(r.m.s.) for a prevent of maintained at at of 125+2'-0 for 1 h, and AC2000V(r.m.s.) for a prevent of maintained at at of 125+2'-0 for 1 h, and AC2000V(r.m.s.) for a prevent of maintained at at of 125+2'-0 for 1 h, and AC2000V(r.m.s.) for a prevent of maintained at at of 125+2'-0 for 1 h, and AC200V(r.m.s.) for a prevent of maintained at at of 125+2'-0 for 1 h, and AC200V(r.m.s.) for a prevent of maintained at at of 125+2'-0 for 1 h, and AC200V(r.m.s.) for a prevent of maintained at at of 125+2'-0 for 1 h, and AC200V(r.m.s.) for a prevent of maintained at at of 125+2'-0 for 1 h, and AC200V(r.m.s.) for a prevent of maintained at at a for 125+2'-0 for 1 h, and AC200V(r.m.s.) for a prevent of new prevent of maintained at at a for a prevent of new p | Temperature and immersion cycle Temperature cycles, then consecutively to 2 immersion cycles. Temperature cycles the cycles of t | The capacitors are placed in a circulating air oven for a period of 1000 h. The air in the oven is maintained at a temperature of 125±2°-0° C, and relative humidity of 50% max. Throughout the test, the capacitors are subjected to a AC680V(r.m.s.) <500 60Hz> alternating voltage of mains frequency, except that once each hour throttage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) fos then placed at *irnom condition for 24±2 h before initial measurements. (Do not apply to Char. St.) Post-treatment: Capacitor should be stored for 24±2 h at *irnom condition. Capacitance Char. St.: Within ±10% Char. B. E.: Within ±10% Char. B. E.: Within ±10% Char. B. E.: 5.0% max. I.R. 3000MΩ min. Dielectric strength Per item 3 The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. **Time Char. B. E.: 5.0% max. 1 | The capacitors are placed in a circulating air over for a period of 1000 h. The air in the oven is maintained at a temperatur of 126+2/-0 °C, and relative humidity of 50% max and Throughout the test, the capacitors are subjected to a AC680V(r.m.s.) AC680V(r.m.s.) Color:blue; attention of 24:2 h and relative humidity of 50% max and Throughout the test, the capacitors are subjected to a AC680V(r.m.s.) Color:blue; attention of 24:2 h and according for 24:2 h and according for 24:2 h before initial measurements. (Do not apply to Char. SL). Post-treatment: Capacitor should be stored at 17:50 mondition. Per-treatment: Capacitor should be stored for 24:2 h at 10 mondition. The capacitor should be stored for 24:2 h at 10 mondition. The capacitor should be stored for 24:2 h at 10 mondition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. D.F. Char. SL: 2:Within ±20% Char. B. : Within ±20% Char. B. : 5:50% max. L.R. 3000MΩ min. Jelectric strength Per item 3 LR. 3000MΩ min. Dielectric strength Per item 3 Cycle time: 500 cycle firm: 500 | Capacitance change D.F. I.R. Dielectric | Char. SL : Within ±5% | The capacitors are placed in a circulating air over for a period of 1000 h. The air in the oven is maintained at a temperatur of 125+2/-0 °C, and relative humidity of 50% max Throughout the test, the capacitors are subjected to a AC680V(r.m.s.)<50/60Hz> alternating voltage of mains frequency, except that once each hour troltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1 room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 24±2 h at *1 room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. **Temperature cycle** #20% max. max. **Temperature cycle** Time | | | |
| The capacitors are placed in a circulati for a period of 1000 h. The air in the oven is maintained at at of 125±2/3 °C, and relative humidity of Throughout the test, the capacitors are to a AC680V(r.m.s.) Pre-treatment: Capacitor should be si 125±2°C for 1 h, and AC2000V(r.m.s.) 60s at *1room condition for before initial measure (Do not apply to Cha Post-treatment: Capacitor should be si 24±2 h at *1room condition for before initial measure (Char. B. : Within ±5% change Char. B. : Within ±10% Char. B. : Within ±20% D.F. D.F. Char. SL : 2.5% max. Char. B. E : 5.0% max. Char. B. E : Within ±5% char. Char. B. E : Wi | Temperature and immersion cycle Temperature and immersion cycle D.F. Char. S.L.: Within ±20% Char. E.: Within ±20% Char. B. E.: 5.0% max. Char. B. E.: 5.0% max. I.R. 3000MΩ min. Dielectric strength The capacitors are placed in a circulating air for a period of 1000 h. The air in the oven is maintained at a tempers of 125±2/-0 °C, and relative humidity of 50% Throughout the test, the capacitors a subjet to a AC680V(r.m.s.) <50/60Hz> alternating vo of mains frequency, except that once each hot voltage is increased to AC1000V(r.m.s.) for 0 Pre-treatment: Capacitor should be stored a 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then please at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then please at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then please at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then please at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then please at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then please at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then please at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then please at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then please at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then please at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then please at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then please at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then please at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then please at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then please at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then please at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then please at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then please at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then please at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then please at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then please at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then please at 1 | The capacitors are placed in a circulating air oven for a period of 1000 h. The air in the oven is maintained at a temperature of 125±2° Cor and relative humidity of 50% max. Throughout the test, the capacitors are subjected to a AC680V(r.m.s.)-50/60H2-alternating voltage of mains frequency, except that once each hour th voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2° Cor of 1 h, and apply the AC2000V(r.m.s.) fos then placed at *1*room condition for 24±2 h before initial measurements. (Do not apply to Char. SL.) Post-treatment: Capacitor should be stored for 24±2 h at *1*room condition. Char. SL: Within ±10% Char. SL: Within ±10% Char. SL: 2.5% max. I.R. 3000MΩ min. Dielectric strength Per item 3 The capacitors should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. **Temperature* cycles, the cycles c | The capacitors are placed in a circulating air over for a period of 1000 h. The air in the oven is maintained at a temperature of 125+2/-0°C, and relative humidity of 50% max Throughout the test, the capacitors are subjected to a AC680V(r.m.s.) <a (do="" 1room="" apply="" before="" charce="" condition="" for="" href="#cond-condition-relation-left-square-relation-left-square-relation-rela</td><td>Capacitance change D.F. I.R. Dielectric</td><td> Char. SL : Within ±5% </td><td>The capacitors are placed in a circulating air over for a period of 1000 h. The air in the oven is maintained at a temperatur of 125+2/-0 °C, and relative humidity of 50% may Throughout the test, the capacitors are subjected to a AC680V(r.m.s.)<50/60Hz> alternating voltage of mains frequency, except that once each hour the voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1 room condition for 24±2 h at *1 room condition for 24±2 h at *1 room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. **Toom condition** **Toom condition** The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. **Toom condition** **Toom</td></tr><tr><td>T2 The capacitors are placed in a circulati for a period of 1000 h. The air in the over is maintained at at a tof 125+2/0 °C, and relative humidity of Throughout the test, the capacitors are to a AC680V(r.m.s.) Throughout the test, the capacitors are to a AC680V(r.m.s.) Throughout the test, the capacitors are to a AC680V(r.m.s.) Throughout the test, the capacitors are to a AC680V(r.m.s.) The air in the over is maintained at at tof 125+2/0 °C, and relative humidity of Throughout the test, the capacitors are to a AC680V(r.m.s.) Throughout the test, the capacitors are to a AC680V(r.m.s.) Fre-treatment: Capacitor should be substance of the capacitor should be substance of the capacitor should be subjected to 5 change. Char. B.: Within ±5% Char. B.: Within ±20% D.F. Char. SL.: 2.5% max. Char. B.: Within ±20% D.F. Char. SL.: 2.5% max. Char. B.: Within ±20% D.F. Char. SL.: 2.5% max. Char. B.: Within ±20% D.F. Char. SL.: 2.5% max. Char. B.: Within ±20% D.F. Char. SL.: 2.5% max. Char. B.: Within ±20% D.F. Char. SL.: 2.5% max. Char. B.: Within ±20% D.F. Char. SL.: 2.5% max. Char. B.: Within ±20% D.F. Char. SL.: 2.5% max. Char. B.: Within ±20% D.F. Char. SL.: 2.5% max. Char. B.: Within ±20% Char. B.: Within ±20% Char. B.: Within ±20% D.F. Char. SL.: 2.5% max. Char. B.: Within ±20% Char. B.: Within ±20% D.F. Char. SL.: 2.5% max. Char. B.: Within ±20% D.F. Char. SL.: 2.5% max. Char. B.: Within ±20% D.F. Char. SL.: 2.5% max. Char. B.: Within ±20% Char. B.: Within ±2</td><td>The capacitors are placed in a circulating air for a period of 1000 h. The air in the oven is maintained at a temper of 125+2/-0 °C, and relative humidity of 50% Throughout the test, the capacitors are subject to a AC680V(r.m.s.)<50/60Hz> alternating vo of mains frequency, except that once each ho voltage is increased to AC1000V(r.m.s.) for 0. Pre-treatment: Capacitor should be stored a 125±2°C for 1 h, and apply t AC2000V(r.m.s.) 60s then pl at *1room condition for 24±2 before initial measurements (Do not apply to Char. SL.) Post-treatment: Capacitor should be stored a 125±2°C for 1 h, and apply to Char. SL.) Post-treatment: Capacitor should be stored for 24±2 hat *1room condition. Temperature and immersion cycle Char. SL. Within ±5% Char. SL. Within ±5% Char. B. E. Within ±10% Char. E. Within ±10% Char. B. E. 5.0% max. Char. B. Ch</td><td>The capacitors are placed in a circulating air oven for a period of 1000 h. The air in the oven is maintained at a temperature of 125+2/-0 °C, and relative humidity of 50% max. Throughout the test, the capacitors are subjected to a AC680V(r.m.s.)-50/60Hz> alternating voltage of mains frequency, except that once each hour the voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL.) Post-treatment: Capacitor should be stored for 24±2 h at *1room condition. The capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at *1room condition for 24±2 h at *1room condition. The capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at *1room condition for 24±2 h at *1room condition. The capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at *1room condition for 24±2 h at *1room condition. The capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at *1room condition for 24±2 h at *1room condition. The capacitor should be subjected to 500 temperature cycles. Char. B.: Within ±5% measurements. Char. B.: Within ±20% Char. E.: Within ±20% Char. S.!: Accommended at *1room condition. The capacitor should be subjected to 500 temperature cycles. Simperature cycles the consecutively to 2 immersion cycles. Simperature cycles the consecutively to 2 immersion cycles. Simperature cycles the consecutively cycles in the cycles of the</td><td>The capacitors are placed in a circulating air over for a period of 1000 h. The air in the oven is maintained at a temperatur of 125±2°-0° °C, and relative humidity of 50% max Throughout the test, the capacitors are subjected to a AC880V(r.m.s.)-50/60H2-2 alternating voltage of mains frequency, except that once each hour totage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor capacitor should be stored at 125±2° °C for 1 h, and apply the AC2000V(r.m.s.). 60s then place at 100 more condition for 24±2 h before initial measurements. (Do not apply to Char. St.) Post-treatment: Capacitor should be stored of 24±2 h at 100 more condition for 24±2 h before initial measurements. (Capacitance Char. B. : Within ±5% Char. B. : Within ±10% Char. B. : Within ±1</td><td>Capacitance change D.F. I.R. Dielectric</td><td> Char. SL : Within ±5% </td><td>The capacitors are placed in a circulating air over for a period of 1000 h. The air in the oven is maintained at a temperatur of 125+2/-0 °C, and relative humidity of 50% may Throughout the test, the capacitors are subjected to a AC680V(r.m.s.)<50/60Hz> alternating voltage of mains frequency, except that once each hour the voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1 room condition for 24±2 h before initial measurements. (Do not apply to Char. SL.) Post-treatment: Capacitor should be stored for 24±2 h at *1 room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. **20%** **Temperature cycle** Temperature cycle**</td></tr><tr><td>The capacitors are placed in a circulati for a period of 1000 h. The air in the oven is maintained at at of 125±2/-0°C, and relative humidity of Throughout the test, the capacitors are to a AC680V(r.m.s.) Pre-treatment : Capacitor should be sings frequency, except that once evoltage is increased to AC1000V(r.m.s.) 60s at " initial="" measure="" not="" td="" to="" to<=""><td>Temperature and immersion cycle Temperature and immersion cycle D.F. Char. SL: Within ±5% Char. E: Within ±20% D.F. Char. SL: So, max. I.R. 3000MΩ min. Dielectric strength The capacitors are placed in a circulating air for a period of 1000 h. The air in the oven is maintained at a temper: of 125±2°-C γC, and relative humidity of 50%. Throughout the test, the capacitors are subjet to a AC680V(r.m.s.), ±50/60Hz> alternating vo of mains frequency, except that once each ho voltage is increased to AC1000V(r.m.s.) for 0 Pre-treatment: Capacitor should be stored a 125±2°C for 1 h, and apply the AC2000V(r.m.s.) so then plant *1room condition for 24±2 before initial measurements (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 24±2 h at *1room condition. The capacitor should be stored for 24±2 h at *1room condition. The capacitor should be stored for 24±2 h at *1room condition. The capacitor should be stored for 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room</td><td>The capacitors are placed in a circulating air oven for a period of 1000 h. The air in the oven is maintained at a temperature of 125±2/-0 °C, and relative humidity of 50% max. Throughout the test, the capacitors are subjected to a AC680V(r.m.s.) AC680V(r.m.s.) Fre-treatment : Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) for 0.1 s. Pre-treatment : Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) for 0.1 s. Pre-treatment : Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) for 0.1 s. Pre-treatment : Capacitor should be stored for 24±2 h at "1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL.) Post-treatment: Capacitor should be stored for 24±2 h at "1room condition. The capacitors are placed in a circulating air oven for aperiod of 1000 h. The air in the oven is maintained at a temperature of 125±2/-0 for, max. Throughout the test, the capacitors are subjected to a AC680V(r.m.s.) 60 for 1 h, and apply the AC2000V(r.m.s.) 60 for 1 h, and apply the voltage is increased to AC1000V(r.m.s.) 60 for 1 h, and apply the AC2000V(r.m.s.) 60 for 1 h, and apply the voltage of mains frequency, except that capacitors are subjected to a AC680V(r.m.s.) 60 for 1 h, and apply the voltage of mains frequency accepts and reference at "155±2°C for 1 h, and apply the voltage of mains frequency accepts and reference at "155±2°C for 1 h, and apply the voltage of mains frequency accepts and reference at "155±2°C for 1 h, and apply the voltage of mains frequency accepts and reference at "155±2°C for 1 h, and apply the voltage of mains frequency accepts and reference at "155±2°C for 1 h, and apply the AC2000V(r.m.s.) 60 for 1 h, and apply the AC2000V(r.m.s.) 60 for 1 h, and apply the AC2000V(r.m.s.) 60 for 1 h, and accepts and reference at "155±2°C for 1 h, and apply the AC2000V(</td><td>The capacitors are placed in a circulating air over for a period of 1000 h. The air in the oven is maintained at a temperatur of 125+2/0°C, and relative humidity of 50% max Throughout the test, the capacitors are subjected to a AC680V(r.m.s.) colon-lize alternating voltage of mains frequency, except that once each hour the voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 24±0 h before initial measurements. (Do not apply to Char. SL) Post-treatment voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment voltage is increased to AC1000V(r.m.s.) for 0.1 s. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Increased to AC1000V(r.m.s.) for 0.1 s. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecu</td><td>Capacitance change D.F. I.R. Dielectric</td><td> Char. SL : Within ±5% </td><td>The capacitors are placed in a circulating air over for a period of 1000 h. The air in the oven is maintained at a temperatur of 125+2/-0 °C, and relative humidity of 50% max Throughout the test, the capacitors are subjected to a AC680V(r.m.s.)<50/60Hz> alternating voltage of mains frequency, except that once each hour the voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1 room condition for 24±2 h and the place at *1 room condition for 24±2 h at the place at *1 room condition. Post-treatment: Capacitor should be stored for 24±2 h at *1 room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. **±5%** *±10%** *±20%** max. max. **Temperature cycle>** Time </td> | Temperature and immersion cycle Temperature and immersion cycle D.F. Char. SL: Within ±5% Char. E: Within ±20% D.F. Char. SL: So, max. I.R. 3000MΩ min. Dielectric strength The capacitors are placed in a circulating air for a period of 1000 h. The air in the oven is maintained at a temper: of 125±2°-C γC, and relative humidity of 50%. Throughout the test, the capacitors are subjet to a AC680V(r.m.s.), ±50/60Hz> alternating vo of mains frequency, except that once each ho voltage is increased to AC1000V(r.m.s.) for 0 Pre-treatment: Capacitor should be stored a 125±2°C for 1 h, and apply the AC2000V(r.m.s.) so then plant *1room condition for 24±2 before initial measurements (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 24±2 h at *1room condition. The capacitor should be stored for 24±2 h at *1room condition. The capacitor should be stored for 24±2 h at *1room condition. The capacitor should be stored for 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room condition. The capacitor should be stored to 24±2 h at *1room | The capacitors are placed in a circulating air oven for a period of 1000 h. The air in the oven is maintained at a temperature of 125±2/-0 °C, and relative humidity of 50% max. Throughout the test, the capacitors are subjected to a AC680V(r.m.s.) AC680V(r.m.s.) Fre-treatment : Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) for 0.1 s. Pre-treatment : Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) for 0.1 s. Pre-treatment : Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) for 0.1 s. Pre-treatment : Capacitor should be stored for 24±2 h at "1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL.) Post-treatment: Capacitor should be stored for 24±2 h at "1room condition. The capacitors are placed in a circulating air oven for aperiod of 1000 h. The air in the oven is maintained at a temperature of 125±2/-0 for, max. Throughout the test, the capacitors are subjected to a AC680V(r.m.s.) 60 for 1 h, and apply the AC2000V(r.m.s.) 60 for 1 h, and apply the voltage is increased to AC1000V(r.m.s.) 60 for 1 h, and apply the AC2000V(r.m.s.) 60 for 1 h, and apply the voltage of mains frequency, except that capacitors are subjected to a AC680V(r.m.s.) 60 for 1 h, and apply the voltage of mains frequency accepts and reference at "155±2°C for 1 h, and apply the voltage of mains frequency accepts and reference at "155±2°C for 1 h, and apply the voltage of mains frequency accepts and reference at "155±2°C for 1 h, and apply the voltage of mains frequency accepts and reference at "155±2°C for 1 h, and apply the voltage of mains frequency accepts and reference at "155±2°C for 1 h, and apply the AC2000V(r.m.s.) 60 for 1 h, and apply the AC2000V(r.m.s.) 60 for 1 h, and apply the AC2000V(r.m.s.) 60 for 1 h, and accepts and reference at "155±2°C for 1 h, and apply the AC2000V(| The capacitors are placed in a circulating air over for a period of 1000 h. The air in the oven is maintained at a temperatur of 125+2/0°C, and relative humidity of 50% max Throughout the test, the capacitors are subjected to a AC680V(r.m.s.) colon-lize alternating voltage of mains frequency, except that once each hour the voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 24±0 h before initial measurements. (Do not apply to Char. SL) Post-treatment voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment voltage is increased to AC1000V(r.m.s.) for 0.1 s. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Increased to AC1000V(r.m.s.) for 0.1 s. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecu | Capacitance change D.F. I.R. Dielectric | Char. SL : Within ±5% | The capacitors are placed in a circulating air over for a period of 1000 h. The air in the oven is maintained at a temperatur of 125+2/-0 °C, and relative humidity of 50% max Throughout the test, the capacitors are subjected to a AC680V(r.m.s.)<50/60Hz> alternating voltage of mains frequency, except that once each hour the voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1 room condition for 24±2 h and the place at *1 room condition for 24±2 h at the place at *1 room condition. Post-treatment: Capacitor should be stored for 24±2 h at *1 room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. **±5%** *±10%** *±20%** max. max. **Temperature cycle>** Time |
| tor a period of 1000 h. The air in the oven is maintained at a t of 125±2²-0²-C, and relative humidity of Throughout the test, the capacitors are to a AC680V(r.m.s.)-≤50/60Hz> alterna of mains frequency, except that once e voltage is increased to AC1000V(r.m.s.) and a main strength Pre-treatment: Capacitor should be standard from condition to before initial measure (Do not apply to Cha Post-treatment: Capacitor should be standard from condition to before initial measure (Do not apply to Cha Post-treatment: Capacitor should be standard from condition to before initial measure (Do not apply to Cha Post-treatment: Capacitor should be subjected to 5 temperature cycles, then consecutively immersion cycles. Char. B. : Within ±5% (Char. B. : Within ±20% (Char. B. : Within ±20% (Char. B. : Within ±20% (Char. B. : S.5% max. Char. B. E: 5.0% max. I.R. 3000MΩ min. Dielectric strength Per item 3 Cycle time Cycle time 1 | Temperature and immersion cycle D.F. Char. SL: Within ±20% Char. E: Within ±20% Char. E: Within ±20% Char. E: Within ±20% Char. B, E: 5.0% max. I.R. Dielectric strength Tor a period of 1000 h. The air in the oven is maintained at a temperof 125+2/-0 °C, and relative humidity of 50% Throughout the test, the capacitors are subject to a AC680V(r.m.s.) <50/60Hz> alternating vo of mains frequency, except that once each hot voltage is increased to AC1000V(r.m.s.) for 0. Pre-treatment: Capacitor should be stored a 125±2°C for 1 h, and apply t AC2000V(r.m.s.) 60s then pl at *1*room condition for 24±2 before initial measurements (Do not apply to Char. SL). Post-treatment: Capacitor should be stored for 24±2 hat *1*room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Char. B: Within ±20% Char. E: Within ±20% D.F. Char. SL: 2.5% max. Char. B, E: 5.0% max. 1.R. 3000MΩ min. Dielectric strength The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjec | tor a period of 1000 h. The air in the oven is maintained at a temperature of 125+22-0 °C, and relative humidity of 50% max. Throughout the test, the capacitors are subjected to a AC680V(r.m.s.)-≤0/60Hz> alternating voltage of mains frequency, except that once each hour the voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at *1 room condition for 24±2 h before initial measurements. (Do not apply to Char. SL.) Post-treatment: Capacitor should be stored for 24±2 h at *1 room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Char. B.: Within ±10% Char. E.: Within ±20% Char. E.: Within ±20% Char. B.: 2.5% max. Char. B.: 5.0% max. I.R. Dielectric strength The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. **Three capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. **Three capacitors hould be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. **Three capacitors hould be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. **Three capacitors hould be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. **Three capacitors hould be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. **Three capacitors hould be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. **Three capacitors hould be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. **Three capacitors hould be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. **Three capacitors hould be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. **Three capacitors hould be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. **Three capacit | For a period of 1000 h. The air in the over his maintained at a temperature of 125+2'-0 °C, and relative humidity of 50% max Throughout the test, the capacitors are subjected to a AC680V(r.m.s.) 4 foot hour to voltage is increased of AC1800V(r.m.s.) for 0.1 s. which is a construction of 125+2'-0 °C, and relative humidity of 50% max Throughout the test, the capacitors as subjected to a AC680V(r.m.s.) 4 foot of 1 s. which is a construction of AC680V(r.m.s.) 4 foot of 1 s. which is a construction of 125+2'-0 °C of 1 h. and apply the AC2000V(r.m.s.) 60 sthen place at "100m condition for 24±2 h before initial measurements. (Do not apply to Char. Subjected to 500 temperature cycles the nonsecutively to 2 immersion cycle (Char. B. E.: 5.0% max. Char. B | Capacitance change D.F. I.R. Dielectric | Char. SL : Within ±5% | for a period of 1000 h. The air in the oven is maintained at a temperature of 125+2/-0 °C, and relative humidity of 50% max. Throughout the test, the capacitors are subjected to a AC680V(r.m.s.)<50/60Hz> alternating voltage of mains frequency, except that once each hour to voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1 room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 24±2 h at *1 room condition. I. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. ±5% ±10% ±20% max. max. The Capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. | | | |
| The air in the oven is maintained at a to f125+2/-0 °C, and relative humidity of Throughout the test, the capacitors are to a AC680V(r.m.s.)-50/60Hz> alternation and AC2000V(r.m.s.) 60S at "170m condition for before initial measure (Do not apply to Charmersion cycle) Appearance | Temperature and immersion cycle Appearance Capacitance change Char. St.: Within ±5% Char. B.: Within ±10% Char. B.: Within ±20% D.F. Char. St.: 2.5% max. Char. B, E: 5.0% max. I.R. 3000MΩ min. Dielectric strength The air in the oven is maintained at a temper of 125±2°-C γ, and relative humidity of 50%. Throughout the test, the capacitors are subjet to a AC680V(r.m.s.) <50/60Hz> alternating vo of mains frequency, except that once each he voltage is increased to AC1000V(r.m.s.) for 0. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply to AC2000V(r.m.s.) 60s then pl at *1room condition for 24±2 before initial measurements (Do not apply to Char. SL). Post-treatment: Capacitor should be stored for 24±2 h at *1room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Char. B: Within ±10% char. SL: 2.5% max. Char. B, E: 5.0% max. I.R. 3000MΩ min. I.R. 3000MΩ min. Dielectric strength Throughout the test, the capacitors are table to AC1000V(r.m.s.) for 0. Throughout the test, the capacitor should be stored at 1 -40+0/-3 30 min 3 +125+3/-0 30 min 4 Room temp. 3 min Cycle time:500 cycle time: | The air in the oven is maintained at a temperature of 125+2/0 °C, and relative humidity of 50% max. Throughout the test, the capacitors are subjected to a AC680V(r.m.s.)<50/60Hz> alternating voltage of mains frequency, except that once each hour the voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at "froom condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 24±2 h at "froom condition. Post-treatment: Capacitor should be stored for 24±2 h at "froom condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Throughout the test, the capacitors are usual points frequency, except that once each hour the voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored for 24±2 h at "froom condition. Throughout the test, the capacitors are usual points frequency, except that once each hour the voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored for 24±2 h at "froom condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Throughout the test, the capacitor should be stored for 25±2°C for 1 h, and apply the AC2000V(r.m.s.) for 0.1 s. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Throughout the test, the capacitor should be stored for 25±2°C for 1 h, and apply the AC2000V(r.m.s.) for 15 min and 15 min | The air in the oven is maintained at a temperature of 125+2/-0°C, and relative humidity of 50% max Throughout the test, the capacitors are subjected to a AC680V(r.m.s.)<0000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at "iroom condition for 24±2 h before initial measurements. (Do not apply to Char. St.) Post-treatment: Capacitor should be stored for 24±2 h at **Iroom condition. Appearance No marked defect. (Danct apply to Char. St.) Post-treatment: Capacitor should be stored for 24±2 h at **Iroom condition. The capacitor should be stored for 24±2 h at **Iroom condition. The capacitor should be stored for 24±2 h at **Iroom condition. The capacitor should be stored for 24±2 h at **Iroom condition. The capacitor should be stored for 24±2 h at **Iroom condition. The capacitor should be stored for 24±2 h at **Iroom condition. The capacitor should be stored for 500 temperature cycles. The capacitor should be stored for 24±2 h at **Iroom condition. The capacitor should be stored for 24±2 h at **Iroom condition. The capacitor should be stored for 24±2 h at **Iroom condition. The capacitor should be stored for 24±2 h at **Iroom condition. The capacitor should be stored for 500 temperature cycles. Stemperature cycles for 1 firme immersion cycles. Stemperature cycles for 1 firme immersion cycles. Stemperature cycles for 1 firme immersion cycles. Step Temperature cycle firmersion cycles. Pre-treatment : Capacitor should be stored for 1 firmersion cycles. Step Temperature cycle firmersion cycles. Step | Capacitance change D.F. I.R. Dielectric | Char. SL : Within ±5% | The air in the oven is maintained at a temperatur of 125+2/-0 °C, and relative humidity of 50% max. Throughout the test, the capacitors are subjected to a AC680V(r.m.s.)<50/60Hz> alternating voltage of mains frequency, except that once each hour the voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1 room condition for 24±2 h at *1 room condition for 24±2 h at *1 room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. ±5% temperature cycles, then consecutively to 2 immersion cycles. **Temperature cycles** **Temperatu | | | |
| of 125+2/-0 °C, and relative humidity on Throughout the test, the capacitors are to a AC680V(r.m.s.) <50/60Hz> alternation and frequency, except that once evoltage is increased to AC1000V(r.m.s.) 60s at *iroom condition for before initial measure (Do not apply to Chapost-treatment : Capacitor should be stated to Edited the States of Chars and Edited to | of 125+2/-0 °C, and relative humidity of 50%. Throughout the test, the capacitors are subjet to a AC680V(r.m.s.)-≤50/60H2-alternating yo of mains frequency, except that once each hovoltage is increased to AC1000V(r.m.s.) for 0 Pre-treatment: Capacitor should be stored a 125±2°C for 1 h, and apply t AC2000V(r.m.s.) 60s then pl at *'room condition for 24±2 before initial measurements (Do not apply to Char. St.) Post-treatment: Capacitor should be stored for 24±2 h at *'room condition. Temperature and immersion cycle Appearance No marked defect. Capacitance Char. St. : Within ±5% change Char. St. : Within ±10% char. E: Within ±20% Char. E: Within ±20% Char. E: Within ±20% Char. B: Within ±10% Char. B: Within ±20% Char. B: Within ±10% Char. B: Within ±10% Char. B: Within ±20% Char. B: Within ±10% | of 125+2/-0 °C, and relative humidity of 50% max. Throughout the test, the capacitors are subjected to a AC680/Hz alternating voltage of mains frequency, except that once each hour the voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 24±2 h at *1room condition. Pre-treatment: Capacitor should be stored for 24±2 h at *1room condition. The capacitor should be stored for 24±2 h at *1room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Char. B: Within ±20% D.F. Char. SL: 2.5% max. Char. B, E: 5.0% max. Char. B, E: 5.0% max. I.R. 3000MΩ min. Dielectric strength Per item 3 Cycle time:500 cycles | of 125+2/-0 °C, and relative humidity of 50% max Throughout the test, the capacitors are subjected to a AC680V (r.m.s.)-\$50/60Hz> alternating voltage of mains frequency, except that once each hour trivoltage is increased to AC2000V (r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V (r.m.s.) 60s then place at "100 mot apply to Char. SL.) Post-treatment: Capacitor should be stored for 24±2 h at "100 mot apply to Char. SL.) Post-treatment: Capacitor should be stored for 24±2 h at "100 mot apply to Char. SL.) Post-treatment: Capacitor should be stored for 24±2 h at "100 mot apply to Char. SL.) Post-treatment: Capacitor should be stored for 24±2 h at "100 mot apply to Char. SL.) The capacitor should be stored for 24±2 h at "100 mot apply to Char. SL.) Post-treatment: Capacitor should be stored for 24±2 h at "100 mot apply to Char. SL.) Post-treatment: Capacitor should be stored for 24±2 h at "100 mot apply to Char. SL.) The capacitor should be stored for 24±2 h at "100 mot apply to Char. SL.) Post-treatment: Capacitor should be stored for 24±2 h at "100 mot apply to Char. SL.) Post-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at "100 mot apply to Char. SL.) Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at "100 mot apply to Char. SL.) Post-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at "100 mot apply to Char. SL.) | Capacitance change D.F. I.R. Dielectric | Char. SL : Within ±5% | of 125+2/-0 °C, and relative humidity of 50% max. Throughout the test, the capacitors are subjected to a AC680V(r.m.s.)<50/60Hz> alternating voltage of mains frequency, except that once each hour the voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1 room condition for 24±2 h at *1 room condition for 24±2 h at *1 room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. ±5% temperature cycles, then consecutively to 2 immersion cycles. **Temperature cycles** **Temperature | | | |
| Throughout the test, the capacitors are to a AC680V(r.m.s.) https://doi.org/10.10 and a C680V(r.m.s.) choiced in the test, the capacitors are to a AC680V(r.m.s.) choiced in the test, the capacitors are to a AC680V(r.m.s.) choiced in the test, the capacitors are to a AC680V(r.m.s.) choiced in the test, the capacitors are to a AC680V(r.m.s.) choiced in the test, the capacitors are to a AC680V(r.m.s.) choiced in the test, the capacitors are to a AC680V(r.m.s.) choiced in the test, the capacitors are to a AC680V(r.m.s.) choiced in the test, the capacitors are to a AC680V(r.m.s.) choiced in the test, the capacitors are to a AC680V(r.m.s.) choiced in the test, the capacitors are to a AC680V(r.m.s.) choiced in the test, the capacitors are to a AC680V(r.m.s.) choiced in the test, the capacitors are to a AC680V(r.m.s.) choiced in the test, the capacitors are to a AC680V(r.m.s.) choiced in the test, the capacitors are to a AC680V(r.m.s.) choiced in the test, the capacitor should be subjected to 5 temperature cycles, then consecutively immersion cycles. Throughout the test, the capacitor should be subjected to 5 temperature cycles, then consecutively immersion cycles. Throughout the test, the capacitor should be subjected to 5 temperature cycles, then consecutively immersion cycles. Throughout the test, the capacitor should be subjected to 5 temperature cycles, then consecutively immersion cycles. Throughout the test, the capacitor should be subjected to 5 temperature cycles, then consecutively immersion cycles. Throughout the test, the capacitor should be subjected to 5 temperature cycles, then consecutively immersion cycles. Throughout the test, the capacitor should be subjected to 5 temperature cycles, then consecutively immersion cycles. Throughout the test, the capacitor should be subjected to 5 temperature cycles, then consecutively immersion cycles. Throughout the subjected to 5 temperature cycles, then consecuti | Throughout the test, the capacitors are subject to a AC680V(r.m.s.)-c50/60Hz> alternating vo of mains frequency, except that once each hot voltage is increased to AC1000V(r.m.s.) for 0. Pre-treatment: Capacitor should be stored a 125±2°C for 1 h, and apply t AC2000V(r.m.s.) 60s then pl at *1'room condition for 24±2 before initial measurements (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 24±2 h at *1'room condition. Temperature and immersion cycle Capacitance Char. SL: Within ±5% char. E: Within ±10% char. E: Within ±20% D.F. Char. SL: 2.5% max. Char. B, E: 5.0% max. Char. B, E: 5.0% max. I.R. 3000MΩ min. Dielectric Strength Per item 3 Throughout the test, the capacitors are subject to a AC680V(r.m.s.)-c50/60Hz alternating vo of mains frequency, except that once each hot voltage is increased to AC1000V(r.m.s.) for 0. Pre-treatment: Capacitor should be stored for 24±2 h at *1'room condition. Throughout the test, the capacitors are subject cach hot voltage is increased to AC1000V(r.m.s.) for 0. Pre-treatment: Capacitor should be stored a 125±2°C for 1 h, and apply that of 125±2°C for 1 h, and apply that the test, the conclusion of the voltage is increased to AC1000V(r.m.s.) for 0. Temperature capacitor should be stored for 24±2 h at *1'room condition. The capacitor should be stored for 24±2 h at *1'room condition. The capacitor should be stored for 24±2 h at *1'room condition. The capacitor should be stored for 24±2 h at *1'room condition. Throughout for 1 hand apply to Char. SL) Post-treatment: Capacitor should be stored for 24±2 h at *1'room condition. Throughout for 1 hand apply to Char. SL) Post-treatment: Capacitor should be stored for 24±2 h at *1'room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Throughout for 1 hand apply to Char. SL) Post-treatment: Capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Throughout for 1 hand apply to Char. | Throughout the test, the capacitors are subjected to a AC680V(r.m.s.) <50/60Hz> alternating voltage of mains frequency, except that once each hour the voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 24±2 h at *1room condition for 24±2 h at *1room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Char. B. : Within ±5% change Char. B. : Within ±5% change Char. B. : 5.0% max. Throughout the text, that voltage is increased to AC1000V(r.m.s.) 60s then placed at *10cm char. Stored in the voltage is increased to 500 temperature(°C) Time Cycle time:500 cycles Char. B. : 5.0% max. Char. B. : 5.0% max. Throughout the xitom charcacter in the voltage is increased to 500 temperature(°C) Time Cyc | Throughout the test, the capacitors are subjected to a AC680V(r.m.s.). +500/60Hz-alternating voltage of mains frequency, except that once each hour the voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at "1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 24±2 h at "1room condition for 24±2 h at "1room condition. Pre-treatment capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Char. B. : Within ±5% Char. B. E. : 5.0% max. Char. B. E. : 5.0% max. I.R. 3000MQ min. Dielectric strength Per item 3 Throughout the test, the capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. CFENGERAL CAPACITOR (**C) Time 1 | Capacitance change D.F. I.R. Dielectric | Char. SL : Within ±5% | Throughout the test, the capacitors are subjected to a AC680V(r.m.s.)<50/60Hz> alternating voltage of mains frequency, except that once each hour the voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1 room condition for 24±2 h at *1 room condition for 24±2 h at *1 room condition. The capacitor should be stored for 24±2 h at *1 room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. ±5% temperature cycles, then consecutively to 2 immersion cycles. **Temperature cycles** **Temperature cycles** | | | |
| to a AČ680V(r.m.s.)-\$50/60Hz> alterna of mains frequency, except that once evoltage is increased to AC1000V(r.m.s.) 60s at *1room condition to before initial measure (Do not apply to Cha Post-treatment : Capacitor should be state *1 room condition to before initial measure (Do not apply to Cha Post-treatment : Capacitor should be state *1 room condition to before initial measure (Do not apply to Cha Post-treatment : Capacitor should be state *1 room condition to before initial measure (Do not apply to Cha Post-treatment : Capacitor should be subjected to 5 temperature cycles, then consecutively immersion cycles. Appearance No marked defect. Capacitance Char. S.L : Within ±5% change Char. B. : Within ±10% Char. B. E : S.0% max. Char. B. E : Within ±20% D.F. Char. S.L : 2.5% max. Char. B. E : 5.0% max. I.R. 3000MΩ min. Dielectric strength Per item 3 Cycle time **Immrersion cycle>** Step Temperature(°C) Time 1 | to a AČ680V(r.m.s.) <a "1room="" ("c)="" (do="" +125+3="" +65+5="" -0="" -3="" 0±3="" 1="" 125±2°c="" 15="" 2="" 2.5%="" 24±2="" 3="" 30="" 4-04-0="" 5.5%="" 60s="" ac2000v(r.m.s.)="" and="" apply="" at="" at<="" b.:="" be="" before="" capacitance="" capacitor="" change="" char.="" chimersion="" condition="" cycle="" cycles="" cycles.="" d.f.="" deritem="" dielectric="" e.:="" for="" h="" h,="" href="https://docs.org/linear.com/linear.co</td><td>to a AČ680V(r.m.s.)<50/60H2> alternating voltage of mains frequency, except that once each hour the voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at *1 froom condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 24±2 h at *1 froom condition. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at *1 froom condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 24±2 h at *1 froom condition. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at *1 froom condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 24±2 h at *1 froom condition. The capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at *1 froom condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored at *1 froom condition. The capacitor should be stored at *1 froom condition. The capacitor should be stored at *1 froom condition. The capacitor should be stored for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 24±2 h bef</td><td>to a AC680V(r.m.s.) x-50/60Hz> alternating voltage of mains frequency, except that once each hour it voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at " i.r.="" immersion="" initial="" max.="" measurements.="" min="" not="" place="" post-treatment:="" room="" should="" st.)="" st.:="" stored="" strength="" td="" temperature="" temperature("c)="" the="" then="" time="" time:500="" to="" water="" within="" ±0%="" ±10%="" ±5%=""><td>Capacitance change D.F. I.R. Dielectric</td><td> Char. SL : Within ±5% </td><td>to a AC680V(r.m.s.)<50/60Hz> alternating voltage of mains frequency, except that once each hour the voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1 room condition for 24±2 h at *1 room condition for 24±2 h at *1 room condition. Post-treatment: Capacitor should be stored for 24±2 h at *1 room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. **20%** **max.** **max.** **max.** **max.** **ax.** **1</td> | Capacitance change D.F. I.R. Dielectric | Char. SL : Within ±5% | to a AC680V(r.m.s.)<50/60Hz> alternating voltage of mains frequency, except that once each hour the voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1 room condition for 24±2 h at *1 room condition for 24±2 h at *1 room condition. Post-treatment: Capacitor should be stored for 24±2 h at *1 room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. **20%** **max.** **max.** **max.** **max.** **ax.** **1 | | | | | |
| Appearance No marked defect. The capacitor should be stand | of mains frequency, except that once each hovoltage is increased to AC1000V(r.m.s.) for 0 Pre-treatment: Capacitor should be stored a 125±2°C for 1 h, and apply t AC2000V(r.m.s.) 60s then pl at *1room condition for 24±2 before initial measurements (Do not apply to Char. SL) Post-treatment: Capacitor should be stored a 125±2°C for 1 h, and apply t AC2000V(r.m.s.) 60s then pl at *1room condition for 24±2 before initial measurements (Do not apply to Char. SL) Post-treatment: Capacitor should be stored a 125±2°C for 1 h, and apply t AC2000V(r.m.s.) 60s then pl at *1room condition. Temperature and immersion cycle Capacitance Char. SL: Within ±5% Char. B: Within ±10% Char. E: Within ±20% D.F. Char. SL: Within ±20% D.F. Char. SL: S. Within ±20% Char. B: Within ±20% Char. B: Within ±20% D.F. Char. SL: S. Within ±20% Char. B: Within ±3% char within ±40% char B: Within ±20% Char. B: Within ±20% Char. B: Within ±20% Char. B: Within ±30% Char. B: Within ±20% Char. B: Within ±30% Char. B: Wi | of mains frequency, except that once each hour the voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at *1°toom condition for 24±2 h before initial measurements. (Do not apply to Char. St.) Post-treatment: Capacitor should be stored for 24±2 h at *1°toom condition. Prost-treatment capacitor should be stored for 24±2 h at *1°toom condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Char. B.: Within ±10% char. B.: Within ±20% D.F. Char. SL: 2.5% max. Char. B, E: 5.0% max. Char. B, E: Within ±20% Char. B, E: Within ±20% Char. B, E: Within ±5% Cha | Pre-treatment : Capacitor should be stored at voltage is increased to AC1000V(r.m.s.) for 0.1 s. | Capacitance change D.F. I.R. Dielectric | Char. SL : Within ±5% | of mains frequency, except that once each hour to voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1 room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 24±2 h at *1 room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. ±20% max. max. Temperature cycles Time 1 | | | |
| Voltage is increased to AC1000V(r.m.s.) Pre-treatment : Capacitor should be state of the treatment is capacitor should be subjected to 5 temperature cycles, then consecutively immersion cycles. Appearance | voltage is increased to AC1000V(r.m.s.) for 0. Pre-treatment : Capacitor should be stored a 125±2°C for 1 h, and apply t AC2000V(r.m.s.) 60s then pl at *¹room condition for 24±2 before initial measurements (Do not apply to Char. SL) Post-treatment : Capacitor should be stored for 24±2 h at *¹room condition. Temperature and immersion cycle Capacitance Char. SL : Within ±5% Char. B : Within ±10% Char. E : Within ±20% D.F. Char. SL : 2.5% max. Char. B, E : 5.0% max. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The | voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 24±2 h at *1room condition. Pre-treatment: Capacitor should be subjected to 500 temperature and ersion cycle Defaction cycle Appearance No marked defect. Capacitance Char. SL: Within ±5% Char. B: Within ±10% Char. E: Within ±10% Char. E: Within ±20% D.F. Char. SL: 2.5% max. Char. B, E: 5.0% max. Char. B, E: 5.0% max. I.R. 3000MΩ min. Dielectric strength Per item 3 Cycle time:500 cycles Temperature cycle> Step Temperature(°C) Time Immersion water Temperature(°C) Time Temperatu | voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at "room condition for 24±2 h before initial measurements. Very defended at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at "room condition for 24±2 h before initial measurements. Very defended at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at "room condition for 24±2 h before initial measurements. Very defended at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at "room condition for 24±2 h before initial measurements. Very defended at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at "room condition for 24±2 h before initial measurements. Very defended at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at "room condition for 24±2 h before initial measurements. Very defended at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at "room condition for 24±2 h before initial measurements. Very defended at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at "room condition for 24±2 h before initial measurements. Very defended at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at "room condition for 24±2 h before initial measurements. Very defended at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at "room condition for 24±2 h before initial measurements. Very defended at 125±2°C for 1 h, a | Capacitance change D.F. I.R. Dielectric | Char. SL : Within ±5% | voltage is increased to AC1000V(r.m.s.) for 0.1 s. Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1 room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 24±2 h at *1 room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. ±5% | | | |
| Pre-treatment : Capacitor should be stand 125±2°C for 1 h, and AC2000V(r.m.s.) 60s at *1'room condition for before initial measure (Do not apply to Cha Post-treatment : Capacitor should be stand 24±2 h at *1'room condition for before initial measure (Do not apply to Cha Post-treatment : Capacitor should be stand 24±2 h at *1'room condition for Char. B. E. Within ±5% Char. B. E. Within ±20% Char. E. Within ±20% Char. B. E. : Within ±20% Char. B. E. : 5.0% max. Char. B. E. : 5 | Pre-treatment : Capacitor should be stored a 125±2°C for 1 h, and apply t AC2000V(r.m.s.) 60s then pl at *¹room condition for 24±2 before initial measurements (Do not apply to Char. SL.) Post-treatment : Capacitor should be stored for 24±2 h at *¹room condition for 24±2 before initial measurements (Do not apply to Char. SL.) Post-treatment : Capacitor should be stored for 24±2 h at *¹room condition. | Pre-treatment : Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment : Capacitor should be stored for 24±2 h at *1room condition. Pre-treatment : Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at *1room condition for 24±2 h at *1room condition. Post-treatment : Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at *1room condition for 24±2 h at *1room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles, then consecutively to 2 immersion cycles. Pre-treatment : Capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles, then consecutively to 2 immersion cycles. Pre-treatment : Capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Pre-treatment : Capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Pre-treatment : Capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Pre-treatment : Capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Pre-treatment : Capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Pre-treatment : Capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Pre-treatment : Capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Pre-treatment : Capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Pre-treatment : Capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Pre-treatment : Capacitor should be subjected to 500 temperature cycles, then consecutively to 2 im | Pre-treatment : Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. St.) Post-treatment : Capacitor should be stored for 24±2 h at *1room condition. Pre-treatment : Capacitor should be stored for 24±2 h at *1room condition. The capacitor should be stored for 24±2 h at *1room condition. The capacitor should be stored for 24±2 h at *1room condition. The capacitor should be stored for 24±2 h at *1room condition. The capacitor should be stored at 500 temperature cycles, then consecutively to 2 immersion cycles. Char. B. : Within ±10% Char. B. : Within ±20% D.F. Char. St. : 2.5% max. Char. B. : 5.0% max. Char. B. : 5.0% max. Char. B. : 5.0% max. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be stored for 1 the capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor sh | Capacitance change D.F. I.R. Dielectric | Char. SL : Within ±5% | Pre-treatment : Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment : Capacitor should be stored for 24±2 h at *1room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. ±20% max. max. max. 1 | | | |
| Table 2°C for 1 h, and AC2000V(r.m.s.) 60s at *1room condition for before initial measure (Do not apply to Cha Post-treatment :Capacitor should be standard to the post-treatment cycle Capacitance change Char. SL : Within ±5% change Char. SL : Within ±10% char. E : Within ±20% | Temperature and immersion cycle Appearance Capacitance change Char. SL : Within ±5% Char. E : Within ±20% D.F. Char. SL : 2.5% max. Char. B, E : 5.0% max. I.R. Dielectric strength Appearature and immersion cycle Cycle time:500 cycle Cycle time:500 cycle Appearance Char. SL : Within ±0% Char. E : Within ±0% Char. E : Within ±10% Char. B, E : 5.0% max. Char. B, E : 5.0% max. Char. B, E : 5.0% max. Char. B : Within ±10% Char. B : Within ±20% D.F. Char. SL : 2.5% max. Char. B, E : 5.0% max. Char. B : Within ±20% Char. E : Within ±5% change char. E : Within ±5% char. E : | Appearance Appearance Capacitance change Char. SL : Within ±5% Char. E : Within ±20% | Part | Capacitance change D.F. I.R. Dielectric | Char. SL : Within ±5% | 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1 room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 24±2 h at *1 room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. ±5% ±10% ±20% max. max. Temperature cycle> 1 remperature(°C) Time 1 remperature(°C) Time 2 Room temp. 3 min 3 remperature cycle> Room temp. 3 min 4 Room temp. 3 min Cycle time:500 cycle | | | |
| Table 2°C for 1 h, and AC2000V(r.m.s.) 60s at *1room condition for before initial measure (Do not apply to Cha Post-treatment :Capacitor should be standard to the post-treatment cycle Capacitance change Char. SL : Within ±5% change Char. SL : Within ±10% char. E : Within ±20% | Temperature and immersion cycle Appearance Capacitance change Char. SL : Within ±5% Char. E : Within ±20% | Appearance Appearance Capacitance change Char. SL : Within ±5% Char. E : Within ±20% | Part | Capacitance change D.F. I.R. Dielectric | Char. SL : Within ±5% | 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1 room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 24±2 h at *1 room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. ±5% ±10% ±20% max. max. Temperature cycle> 1 remperature(°C) Time 1 remperature(°C) Time 2 Room temp. 3 min 3 remperature cycle> Room temp. 3 min 4 Room temp. 3 min Cycle time:500 cycle | | | |
| Appearance No marked defect. The capacitor should be subjected to 5 temperature cycles, then consecutively immersion cycles. D.F. Char. SL : 2.5% max. Char. B, E : 5.0% max. I.R. 3000MΩ min. Dielectric strength Der item 3 Cycle time Cycle time Appearance No marked defect. The capacitor should be subjected to 5 temperature cycles, then consecutively immersion cycles. Char. B : Within ±20% D.F. Char. SL : 2.5% max. Char. B, E : 5.0% max. 1.R. 3000MΩ min. Dielectric strength Cycle time Cycle time Cycle time Cycle time Cycle time Cycle time Pre-treatment : Capacitor should be s' 125±2°C for 1 h, and AC2000V(r.m.s.) 60s at *1*room condition for before initial measure (Do not apply to Cha Post-treatment : Capacitor should be s' 125±2°C for 1 h, and AC2000V(r.m.s.) 60s at *1*room condition for before initial measure (Do not apply to Cha Post-treatment : Capacitor should be s' 125±2°C for 1 h, and AC2000V(r.m.s.) 60s at *1*room condition for before initial measure (Do not apply to Cha Post-treatment : Capacitor should be s' 125±2°C for 1 h, and AC2000V(r.m.s.) 60s at *1*room condition for before initial measure (Do not apply to Cha Post-treatment : Capacitor should be s' 125±2°C for 1 h, and AC2000V(r.m.s.) 60s at *1*room con to apply to ChaPost-treatment : Capacitor should be s' 125±2°C for 1 h, and AC2000V(r.m.s.) 60s at *1*room (Do not apply to ChaPost-treatment : Capacitor should be s' 125±2°C for 1 h, and AC2000V(r.m.s.) 60s at *1*room con to apply to ChaPost-treatment : Capacitor should be s' 125±2°C for 1 h, and AC2000V(r.m.s.) 60s at *1*room con to apply to ChaPost-treatment : Capacitor should be s' 125±2°C for 1 h, and AC2000V(r.m.s.) 60s at *1*room con to apply to ChaPost-treatment : Capacitor should be s' 125±2°C for 1 h, and AC2000V(r.m.s.) 60s at *1*room (Do not apply to ChaPost-treatment : Capacitor should be s' 125±2°C for 1 h, and AC2000V(r.m.s.) 60s at *1*room con to apply to ChaPost-treatment : Capacitor should be s' 125±2°C for 1 h, and AC2000V(r.m.s.) 60s at *1*room con treatme | AC2000V(r.m.s.) 60s then plat *¹room condition for 24±2 before initial measurements (Do not apply to Char. SL). Post-treatment : Capacitor should be stored for 24±2 h at *¹room condition. Temperature and immersion cycle Appearance No marked defect. Capacitance change Char. SL : Within ±5% Char. B : Within ±10% Char. E : Within ±20% D.F. Char. SL : 2.5% max. Char. SL : 5.0% max. I.R. 3000MΩ min. Dielectric strength Per item 3 AC2000V(r.m.s.) 60s then plat *¹room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Appearance No marked defect. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Appearance Char. SL : Within ±20% Char. B : Within ±20% The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Appearance Char. SL : 2.5% max. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Appearance Char. SL : Within ±5% Char. B : Within ±20% D.F. Char. SL : 2.5% max. Char. B : Within ±20% D.F. Char. SL : 2.5% max. Char. B : Within ±20% D.F. Char. SL : 2.5% max. Char. B : Within ±20% The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Appearance Char. B : Within ±20% The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Appearance Char. B : Within ±20% The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacit | AC2000V(r.m.s.) 60s then placed at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 24±2 h at *1room condition. Appearance No marked defect. Capacitance Char. SL: Within ±5% change Char. B: Within ±10% Char. E: Within ±20% D.F. Char. SL: 2.5% max. Char. B, E: 5.0% max. I.R. 3000MΩ min. Dielectric strength Appearance No marked defect. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Char. B: Within ±20% D.F. Char. SL: 2.5% max. Char. B: Within ±20% The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Char. B: Within ±20% D.F. Char. SL: 2.5% max. Char. B: Within ±20% The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Char. B: Within ±20% D.F. Char. SL: 2.5% max. Char. B: Within ±20% The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Char. B: Within ±5% char. E: Within ±10% char. E: Within ±20% D.F. Char. SL: 2.5% max. Char. B: Within ±10% char. E: Within ±5% char | AC2000V(r.m.s.) 60s then place at **room condition for 24±2 h before initial measurements. (Do not apply to Char. SL.) Post-treatment :Capacitor should be stored for 24±2 h at **room condition. Appearance No marked defect. | Capacitance change D.F. I.R. Dielectric | Char. SL : Within ±5% | AC2000V(r.m.s.) 60s then place at *1 room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 24±2 h at *1 room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. ±20% max. max. Temperature cycle> Temperature cycle> 1 | | | |
| Appearance No marked defect. Post-treatment : Capacitor should be standard to 5 temperature cycles, then consecutively immersion cycles. | Temperature and immersion cycle Appearance Appearance Capacitance change Char. SL : Within ±5% Char. B : Within ±10% Char. B : E : 5.0% max. Char. B : 5.0% max | at *1 room condition for 24±2 h before initial measurements. (Do not apply to Char. SL.) Post-treatment: Capacitor should be stored for 24±2 h at *1 room condition. Appearance No marked defect. Capacitance Char. SL.: Within ±5% change Char. B.: Within ±20% D.F. Char. SL.: 2.5% max. Char. B, E: 5.0% max. I.R. 3000MΩ min. Dielectric strength Appearance No marked defect. Capacitance Char. SL.: Within ±20% D.F. Char. SL.: Within ±20% D.F. Char. SL.: 2.5% max. Char. B, E: 5.0% max. | Post-treatment capacitor should be stored for 24±2 h before initial measurements. (Do not apply to Char. SL.) Post-treatment: Capacitor should be stored for 24±2 h at **room condition for 24±2 h at **room conditi | Capacitance change D.F. I.R. Dielectric | Char. SL : Within ±5% | at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 24±2 h at *1room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. ±20% max. max. Temperature cycle> Temperature(°C) Time 1 -40+0/-3 30 min 2 Room temp. 3 min 3 +125+3/-0 30 min 4 Room temp. 3 min Cycle time:500 cycle | | | |
| before initial measure (Do not apply to Cha Post-treatment : Capacitor should be stighted to Stemperature and Mersion cycle Appearance No marked defect. Capacitance Char. SL: Within ±5% Char. B: Within ±10% Char. E: Within ±20% D.F. Char. SL: 2.5% max. Char. B, E: 5.0% max. I.R. 3000MΩ min. Dielectric strength Defore initial measure (Do not apply to Cha Post-treatment : Capacitor should be subjected to 5 temperature cycles, then consecutively immersion cycles. **Temperature cycles** **Temperature | Defore initial measurements (Do not apply to Char. SL.) Post-treatment : Capacitor should be stored for 24±2 h at *¹ room condition. | before initial measurements. (Do not apply to Char. SL) Post-treatment : Capacitor should be stored for 24±2 h at *¹room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. D.F. Char. SL : Within ±20% D.F. Char. SL : 2.5% max. Char. B, E : 5.0% max. I.R. 3000MΩ min. Dielectric strength Dielectric | Defore initial measurements. ((Do not apply to Char. SL) Post-treatment : Capacitor should be stored for 24±2 h at *¹room condition. | Capacitance change D.F. I.R. Dielectric | Char. SL : Within ±5% | before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for 24±2 h at *¹room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. ±20% max. max. Temperature cycle Temperature(°C) Time 1 -40+0/-3 30 min 2 Room temp. 3 min 3 +125+3/-0 30 min 4 Room temp. 3 min Cycle time:500 cycle | | | |
| Appearance Appearance Char. St. : Within ±5% Char. B. : Within ±20% | CD not apply to Char. SL) Post-treatment :Capacitor should be stored for 24±2 h at *¹room condition. | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | Post-treatment: Capacitor should be stored for 24±2 h at "from condition. Post-treatment: Capacitor should be stored for 24±2 h at "from condition. Appearance | Capacitance change D.F. I.R. Dielectric | Char. SL : Within ±5% | (Do not apply to Char. SL) Post-treatment :Capacitor should be stored for 24±2 h at *¹room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. ±20% max. max. Temperature cycle 1 -40+0/-3 30 min 2 Room temp. 3 min 3 +125+3/-0 30 min 4 Room temp. 3 min Cycle time:500 cycle | | | |
| Post-treatment : Capacitor should be st 24±2 h at *¹room con con cycle | Post-treatment : Capacitor should be stored for 24±2 h at *¹room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Appearance | Post-treatment :Capacitor should be stored for 24±2 h at *¹room condition. Appearance No marked defect. Capacitance change Char. SL : Within ±5% change Char. B : Within ±20% D.F. Char. SL : 2.5% max. Char. B, E : 5.0% max. I.R. 3000MΩ min. Dielectric strength Post-treatment :Capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. **Temperature cycles** **Tempe | Post-treatment : Capacitor should be stored for 24±2 h at *¹room condition. Appearance Capacitance change Char. SL : Within ±5% Char. B : Within ±10% Char. E : Within ±20% D.F. Char. SL : 2.5% max. I.R. 3000M\Omega min. Dielectric strength Per item 3 Togetham of the stored for 24±2 h at *¹room condition of 500 The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. Temperature cycles, then consecutively to 2 immersion cycles Temperature cycles Temperature cycles The capacitor should be stored of supplied to the cycles Temperature cycles | Capacitance change D.F. I.R. Dielectric | Char. SL : Within ±5% | Post-treatment :Capacitor should be stored for 24±2 h at *¹room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. ±20% max. max. Temperature cycle 1 -40+0/-3 30 min 2 Room temp. 3 min 3 +125+3/-0 30 min 4 Room temp. 3 min Cycle time:500 cycle | | | |
| Appearance No marked defect. The capacitor should be subjected to 5 temperature cycles, then consecutively immersion cycles | Temperature and immersion cycle Appearance No marked defect. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. | Appearance Appearance Char. SL : Within ±5% Char. B : Within ±20% | Temperature and immersion cycle Appearance Capacitance change Char. St. : Within ±5% Char. E : Within ±20% Char. E : Within ±20% Char. B, E : 5.0% max. 1.R. 3000MΩ min. 2 Room temp. 3 min. 3 min. 2 Room temp. 3 min. 3 min. 3 min. 3 min. 4 Room temp. 3 min. 3 min | Capacitance change D.F. I.R. Dielectric | Char. SL : Within ±5% | 24±2 h at *1 room condition. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. ±20% max. max. 1 | | | |
| Appearance No marked defect. Capacitance change Char. SL : Within ±5% Char. B : Within ±20% D.F. Char. SL : 2.5% max. Char. B, E : 5.0% max. I.R. 3000MΩ min. Dielectric strength Per item 3 Step Temperature (°C) Time Tempe | Appearance No marked defect. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. | Appearance No marked defect. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. | Temperature and immersion cycle Appearance Capacitance change Char. SL : Within ±5% Char. B : Within ±20% Char. B : Within ±20% Char. B : S.0% max. Char. B, E : 5.0% ma | Capacitance change D.F. I.R. Dielectric | Char. SL : Within ±5% | t. The capacitor should be subjected to 500 temperature cycles, then consecutively to 2 immersion cycles. ±20% max. | | | |
| Capacitance change Char. SL : Within ±5% Char. B : Within ±10% Char. E : Within ±20% D.F. Char. SL : 2.5% max. Char. B, E : 5.0% max. I.R. 3000MΩ min. Dielectric strength Per item 3 Cycle time Cycle time Cycle time Temperature cycles, then consecutively immersion cycles. | Immersion cycle Capacitance change Char. SL : Within ±5% Char. B : Within ±10% Char. E : Within ±20% temperature cycles, then consecutively to 2 immersion cycles. D.F. Char. SL : 2.5% max. Char. B, E : 5.0% max. 1 -40+0/-3 30 min. I.R. 3000MΩ min. 2 Room temp. 3 min. Dielectric strength Per item 3 4 Room temp. 3 min. Cycle time:500 cycles Step Temperature (°C) Time Immers wate 1 +65+5/-0 15 min Clear 1 +65+5/-0 15 min Clear 2 Room temp. 3 min Cycle time:500 cycles 3 +125+3/-0 30 min Cycle time:500 cycles 4 Room temp. 3 min Cycle time:500 cycles 2 Room temp. 3 min Cycle time:500 cycles 3 +125+3/-0 30 min Cycle time:500 cycles 4 Room temp. 3 min Cycle time:500 cycles 2 Room temp. 3 min Cycle time:500 cycles 3 Room temp. 3 min Cycle time:500 cycles 4 Room temp. 3 min Cycle time:500 cycles 5 Room temp. 3 min Cycle time:500 cycles 6 Room temp. 3 min Cycle time:500 cycles 7 Room temp. 3 min Cycle time:500 cycles 8 Room temp. 3 min Cycle time:500 cycles 1 Room temp. 3 min Cycle time:500 cycles 2 Room temp. 3 min Cy | Capacitance change Char. SL : Within ±5% Char. B : Within ±10% Char. E : Within ±20% D.F. Char. SL : 2.5% max. Char. B, E : 5.0% max. I.R. 3000MΩ min. Dielectric strength Per item 3 Cycle time:500 cycles | Immersion cycle Capacitance change Char. SL : Within ±5% Char. B : Within ±20% | Capacitance change D.F. I.R. Dielectric | Char. SL : Within ±5% | #5% #10% #20% max. max. max. 1 | | | |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | change Char. B : Within ±10% Char. E : Within ±20% D.F. Char. SL : 2.5% max. Char. B, E : 5.0% max. I.R. 3000MΩ min. Dielectric strength Per item 3 Per item 3 4 Room temp. 3 min Cycle time:500 cycles Cycle time:500 cycles Cycle time:500 cycles Temperature cycles 1 Room temp. 3 min Cycle time:500 cycles Step Temperature(°C) Time Immersion cycles Temperature(°C) Time wate 1 +65+5/-0 15 min Clear 1 +65+5/-0 15 min Clear 2 Room temp. 3 min Cycle time:500 cycles 3 Salt 1 +65+5/-0 15 min Cycle time:500 cycles Salt | change Char. B : Within ±10% Char. E : Within ±20% D.F. Char. SL : 2.5% max. Char. B, E : 5.0% max. : I.R. 3000MΩ min. 2 Room temp. 3 min Dielectric strength Per item 3 3 +125+3/-0 30 min 4 Room temp. 3 min 4 Room temp. 3 min Cycle time:500 cycles Step Temperature(°C) Time Immersion water 1 +65+5/-0 15 min Clean water 2 0±3 15 min Salt water | Change Char. B : Within ±10% Char. E : Within ±20% D.F. | D.F. I.R. Dielectric | ge Char. B : Within ±10% Char. E : Within ±20% Char. SL : 2.5% max. Char. B, E: 5.0% max. 3000MΩ min. Per item 3 | ### ################################## | | | |
| Char. E : Within ±20% D.F. Char. SL : 2.5% max. Char. B, E : 5.0% max. I.R. 3000MΩ min. Dielectric strength Per item 3 Cycle time Temperature cycle 1 | Char. E : Within ±20% D.F. Char. SL : 2.5% max. Char. B, E : 5.0% max. I.R. 3000MΩ min. Dielectric strength Per item 3 Cycle time:500 c; Step Temperature(°C) Time Cycle time:500 c; Step Temperature(°C) Time Cycle time:500 c; Cycl | Char. E : Within ±20% D.F. Char. SL : 2.5% max. Char. B, E : 5.0% max. I.R. 3000ΜΩ min. Dielectric strength Per item 3 Cycle time:500 cycles | Char. E : Within ±20% D.F. Char. SL : 2.5% max. Char. B, E : 5.0% max. L.R. 3000MΩ min. Dielectric strength Per item 3 Temperature cycles 1 | D.F. I.R. Dielectric | $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | ### ################################## | | | |
| D.F. Char. SL : 2.5% max. Char. B, E : 5.0% max. 1.R. 3000MΩ min. 2 Room temp. 3 +125+3/-0 4 Room temp. Cycle time 1 +65+5/-0 15 min 2 O±3 15 min Cycle time Pre-treatment : Capacitor should be statistically and AC2000V(r.m.s.) 60s | D.F. Char. SL : 2.5% max. Char. B, E : 5.0% max. 1 | D.F. Char. SL : 2.5% max. Char. B, E : 5.0% max. 1.R. 3000MΩ min. 2 Room temp. 3 min 3 +125+3/-0 30 min 4 Room temp. 3 min 2 Room temp. 3 min 3 +125+3/-0 30 min 4 Room temp. 3 min 2 Room temp. 3 min 3 +125+3/-0 30 min 4 Room temp. 3 min 4 Room temp. 3 min 2 Room temp. 3 min 4 Room temp. 3 min 2 Room temp. 3 min 4 Room temp. 3 min 2 Room temp. 3 min 4 Room temp. 3 min 2 Room temp. 3 min 4 Room temp. 3 min 2 Room temp. 3 min 4 Room temp. 3 min 3 1 1 1 1 1 1 1 1 1 | D.F. Char. SL : 2.5% max. Char. B, E : 5.0% max. 1.R. 3000MΩ min. 2 Room temp. 3 min. 3 +125+3/-0 30 min. 4 Room temp. 3 min. 5 Cycle time:500 cycle 1 +65+5/-0 15 min Clean water 2 0±3 15 min Salt water 2 0±3 15 min Salt water Cycle time:2 cycles Fre-treatment : Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment : Capacitor should be stored for Cycle time:2 cycles Cycle time:3 Cycle time:4 Cycle time:4 Cycle time:5 Cycle time:5 Cycle time:5 Cycle time:5 Cycle time:2 cycles Cycle time:3 Cycle time:5 Cycle time:5 Cycle time:5 Cycle time:5 Cycle time:2 cycles Cycle time:3 Cycle time:3 Cycle time:5 Cycle time:4 Cycle time:5 Cycle tim | I.R. Dielectric | Char. SL : 2.5% max. Char. B, E : 5.0% max. 3000MΩ min. Per item 3 | max. Image: according to the period of the per | | | |
| Char. B, E : 5.0% max. 1 | Char. B, E : 5.0% max. 1.R. 3000MΩ min. 2 Room temp. 3 min 2. Room temp. 3 min 3 min 3. +125+3/-0 3 min 4. Room temp. 3 min Cycle time:500 cycle> Temperature(°C) Time Immers wate 1. +65+5/-0 15 min Clear wate 2. Room temp. 3 min 3 min 4. Room temp. 3 min 2 min 5tep Temperature(°C) Time Immers 4. Room temp. 1 min Clear 1. Hesself 1 min Clear 2. Salt Salt Salt | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | Char. B, E: 5.0% max. I.R. 3000MΩ min. Dielectric strength Per item 3 Cycle time:500 cycle Immersion cycle> Step Temperature(°C) Time Immersion water 1 +65+5/-0 15 min Clean water 2 0±3 15 min Salt water Cycle time:2 cycles Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for | Dielectric | Char. B, E : 5.0% max. 3000MΩ min. ectric Per item 3 | max. 1 -40+0/-3 30 min 2 Room temp. 3 min 3 +125+3/-0 30 min 4 Room temp. 3 min Cycle time:500 cycle | | | |
| 1.R. 3000MΩ min. 2 Room temp. 3 +125+3/-0 4 Room temp. | I.R. 3000MΩ min. 2 Room temp. 3 min 3 +125+3/-0 30 min 4 Room temp. 3 min Cycle time:500 cycles temp. Step Temperature(°C) Time Immers wate 1 +65+5/-0 15 min Clear wate Salt Salt | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | I.R. 3000MΩ min. Dielectric strength Per item 3 Dielectric strength | Dielectric | ectric Per item 3 | 2 Room temp. 3 min 3 +125+3/-0 30 min 4 Room temp. 3 min Cycle time:500 cycle | | | |
| Dielectric strength | Dielectric strength | Dielectric strength | Dielectric strength Per item 3 3 | Dielectric | ectric Per item 3 | 3 +125+3/-0 30 min 4 Room temp. 3 min Cycle time:500 cycle | | | |
| Strength Cycle time Step Temperature(°C) Time Temperature(°C) | Strength Cycle time:500 cycles Temperature(°C) Time Temperature(°C) Time Cycle 1 | Strength 4 Room temp. 3 min Cycle time:500 cycles Immersion cycle> Temperature(°C) Time water Immersion water 1 +65+5/-0 15 min water Clean water 2 0±3 15 min water Salt water | Strength Cycle time:500 cycle Step Temperature(°C) Time Immersion water | strength | gth | 4 Room temp. 3 min Cycle time:500 cycle | | | |
| Cycle time Step Temperature(°C) Time Time | Cycle time:500 c Cycle time:500 c Cycle time:5 | Cycle time:500 cycles Step Temperature(°C) Time Immersion water | Cycle time:500 cycle Step Temperature(°C) Time Immersion water | | | Cycle time:500 cycle | | | |
| Step Temperature(°C) Time I 1 +65+5/-0 15 min 2 0±3 15 min Cycle time Pre-treatment : Capacitor should be si 125±2°C for 1 h, and AC2000V(r.m.s.) 60s | Step Temperature(°C) Time Wate 1 +65+5/-0 15 min Clear wate | Step Temperature(°C) Time Immersion water 1 | Attention cycle> Step Temperature(°C) Time Immersion water 1 +65+5/-0 15 min Clean water 2 0±3 15 min Salt water Cycle time:2 cycles Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for | | | | | | |
| Step Temperature(°C) Time I 1 +65+5/-0 15 min 2 0±3 15 min Cycle time Pre-treatment : Capacitor should be si 125±2°C for 1 h, and AC2000V(r.m.s.) 60s | Step Temperature(°C) Time Wate 1 +65+5/-0 15 min Clear wate | Step Temperature(°C) Time Immersion water 1 | Attention cycle> Step Temperature(°C) Time Immersion water 1 +65+5/-0 15 min Clean water 2 0±3 15 min Salt water Cycle time:2 cycles Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for | | | | | | |
| Step Temperature(°C) Time 1 +65+5/-0 15 min 2 0±3 15 min Cycle time Pre-treatment : Capacitor should be single to the single | Step Temperature(°C) Time wate 1 +65+5/-0 15 min Clear wate | Step Temperature(°C) Time water | Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for | | | < Immersion cycle > Immersion | | | |
| 2 0±3 15 min Cycle time Pre-treatment : Capacitor should be st 125±2°C for 1 h, and AC2000V(r.m.s.) 60s | 1 +65+5/-0 15 min Clear wate | 1 +65+5/-0 15 min Clean water 2 0±3 15 min Salt water | 1 +65+5/-0 15 min Clean water 2 0±3 15 min Salt water Cycle time:2 cycles Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for | | | I I Step L Temperature(°C) L Time L | | | |
| 2 0±3 15 min Cycle time Pre-treatment : Capacitor should be st 125±2°C for 1 h, and AC2000V(r.m.s.) 60s | 1 +65+5/-0 15 min wate | 2 0±3 15 min water Salt water | Cycle time: 2 cycles Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for | | | Clean | | | |
| Cycle time Pre-treatment : Capacitor should be si 125±2°C for 1 h, and AC2000V(r.m.s.) 60s | Salt | 2 0±3 15 min Salt water | 2 0±3 15 min Salt water Cycle time:2 cycles Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for | | | 1 1 +65+5/-0 15 min | | | |
| Cycle time Pre-treatment : Capacitor should be si 125±2°C for 1 h, and AC2000V(r.m.s.) 60s | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | L J water | Cycle time:2 cycles Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for | • | | Salt | | | |
| Pre-treatment: Capacitor should be single 125±2°C for 1 h, and AC2000V(r.m.s.) 60s | | Cycle time:2 cycles | Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for | | | 11 2 1 0+3 1 15 min 1 | | | |
| Pre-treatment: Capacitor should be single 125±2°C for 1 h, and AC2000V(r.m.s.) 60s | | Cycle time:2 cycles | Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for | | | | | | |
| 125±2°C for 1 h, and AC2000V(r.m.s.) 60s | Cycle time:2 cycl | | 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for | | | | | | |
| 125±2°C for 1 h, and AC2000V(r.m.s.) 60s | | | 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for | | | Cycle time:2 cycles | | | |
| AC2000V(r.m.s.) 60s | | Dra trantment : Conneiter chould be stored at | AC2000V(r.m.s.) 60s then place at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for | | | , , , | | | |
| | | | at *¹room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for | | | Pre-treatment : Capacitor should be stored at | | | |
| at *¹room condition to | | 125±2°C for 1 h, and apply the | before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for | 1 | | Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the | | | |
| | | 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed | (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for | | | Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place | | | |
| | | 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at *1room condition for 24±2 h | Post-treatment : Capacitor should be stored for | | | Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1 room condition for 24±2 h | | | |
| | I DO NOL ADDIV TO CHAL. SEL | 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at *1room condition for 24±2 h before initial measurements. | | | | Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1room condition for 24±2 h before initial measurements. | | | |
| | | 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) | 24±2 II at 100III condition. | | | Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1 room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) | | | |
| 74171181 111111113111 | Post-treatment : Capacitor should be stored | 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for | "room condition" Temperature: 15 to 35°C, Relative humidity: 45 to 75%, Atmospheric pressure: 86 to 106kPa | | | Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for | | | |
| | | | | | | | | | |
| | 125±2°C for 1 h, and apply t | Dra trootmant : Canacitar should be stored at | at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for | | | Cycle time:2 cycles | | | |
| | | Fie-treatment . Capacitor should be stored at | at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for | | | , , , | | | |
| at *!room condition to | | 125±2°C for 1 h, and apply the | before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for | i | | Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the | | | |
| | | 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed | (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for | | | Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place | | | |
| | | 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at *1room condition for 24±2 h | Post-treatment : Capacitor should be stored for | | | Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1 room condition for 24±2 h | | | |
| | (Do not apply to Char. SL) | 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at *1 room condition for 24±2 h before initial measurements. | | | | Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1room condition for 24±2 h before initial measurements. | | | |
| | | 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) | 24±2 h at *1room condition. | | | Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1 room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) | | | |
| 24+2 h at *1 room cond | Post-treatment : Capacitor should be stored | 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then placed at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for | | | | Pre-treatment: Capacitor should be stored at 125±2°C for 1 h, and apply the AC2000V(r.m.s.) 60s then place at *1room condition for 24±2 h before initial measurements. (Do not apply to Char. SL) Post-treatment: Capacitor should be stored for | | | |
| | | | llun aun ann alitinull Te | | | | | | |

6.Packing specification

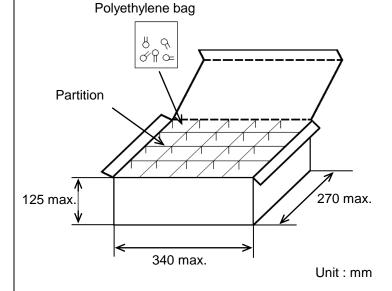
•Bulk type (Packing style code : B)

*1 *2 The number of packing = Packing quantity \times n

The size of packing case and packing way

*1 : Please refer to [Part number list].

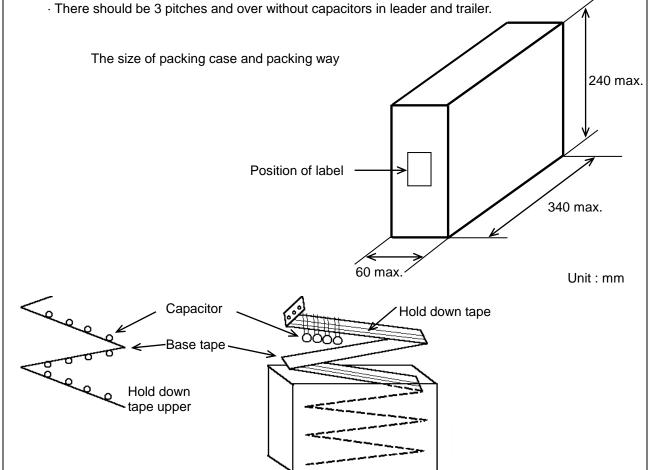
*2 : Standard n = 20 (bag)



Note)

The outer package and the number of outer packing be changed by the order getting amount.

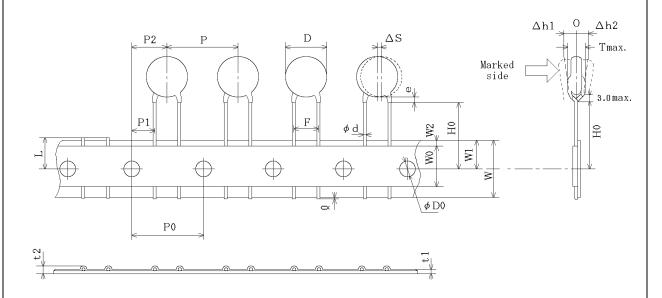
- •Ammo pack taping type (Packing style code : A)
 - · The tape with capacitors is packed zigzag into a case.
 - · When body of the capacitor is piled on other body under it.



7. Taping specification

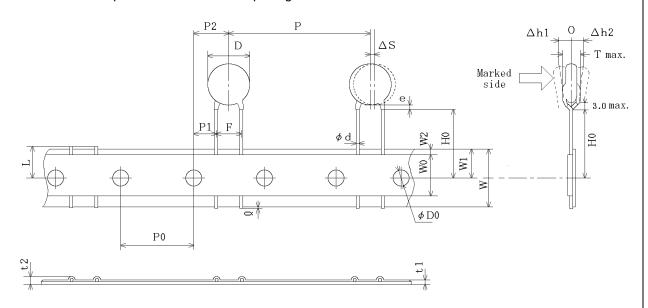
7-1. Dimension of capacitors on tape

Vertical crimp taping type < Lead code : N3 > Pitch of component 15.0mm / Lead spacing 7.5mm



| | | T | Unit . mm |
|--|---------|-----------------------------|--|
| Item | Code | Dimensions | Remarks |
| Pitch of component | Р | 15.0±2.0 | |
| Pitch of sprocket hole | P0 | 15.0±0.3 | |
| Lead spacing | F | 7.5±1.0 | |
| Length from hole center to component center | P2 | 7.5±1.5 | B i ii af na ana a dina at a |
| Length from hole center to lead | P1 | 3.75±1.0 | Deviation of progress direction |
| Body diameter | D | Please refer to [| Part number list]. |
| Deviation along tape, left or right | ΔS | 0±2.0 | They include deviation by lead bend. |
| Carrier tape width | W | 18.0±0.5 | |
| Position of sprocket hole | W1 | 9.0±0.5 | Deviation of tape width direction |
| Lead distance between reference and bottom | II0 | 40.0+2.0 | |
| planes | H0 | $18.0\pm_0^{2.0}$ | |
| Protrusion length | Q | +0.5~-1.0 | |
| Diameter of sprocket hole | φD0 | 4.0±0.1 | |
| Lead diameter | φd | 0.60±0.05 | |
| Total tape thickness | t1 | 0.6±0.3 | |
| Total thickness, tape and lead wire | t2 | 1.5 max. | They include hold down tape thickness. |
| Deviation across tape, front | ∆h1 | | |
| Deviation across tape, rear | ∆h2 | 2.0 max. | |
| Portion to cut in case of defect | L | 11.0± _{1.0} | |
| Hold down tape width | Wo | 11.5 min. | |
| Hold down tape position | W2 | 1.5±1.5 | |
| Coating extension on lead | е | Up to the end of crimp | |
| Body thickness | Т | Please refer to [| Part number list]. |
| Hold down tape position Coating extension on lead | W2 e | 1.5±1.5 Up to the end of | • |

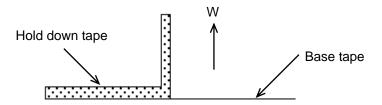
Vertical crimp taping type < Lead code : N7 > Pitch of component 30.0mm /Lead spacing 7.5mm



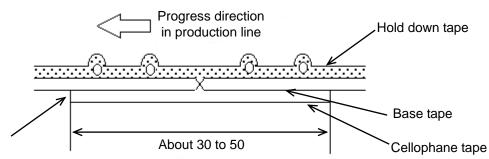
| Item | Code | Dimensions | Remarks |
|---|------|----------------------|--|
| Pitch of component | Р | 30.0±2.0 | |
| Pitch of sprocket hole | P0 | 15.0±0.3 | |
| Lead spacing | F | 7.5±1.0 | |
| Length from hole center to component center | P2 | 7.5±1.5 | |
| Length from hole center to lead | P1 | 3.75±1.0 | Deviation of progress direction |
| Body diameter | D | Please refer to [| Part number list]. |
| Deviation along tape, left or right | ΔS | 0±2.0 | They include deviation by lead bend. |
| Carrier tape width | W | 18.0±0.5 | |
| Position of sprocket hole | W1 | 9.0±0.5 | Deviation of tape width direction |
| Lead distance between reference and bottom planes | НО | 18.0± ^{2.0} | |
| Protrusion length | Q | +0.5~-1.0 | |
| Diameter of sprocket hole | φD0 | 4.0±0.1 | |
| Lead diameter | φd | 0.60±0.05 | |
| Total tape thickness | t1 | 0.6±0.3 | |
| Total thickness, tape and lead wire | t2 | 1.5 max. | They include hold down tape thickness. |
| Deviation across tape, front | ∆h1 | 0.0 | |
| Deviation across tape, rear | ∆h2 | 2.0 max. | |
| Portion to cut in case of defect | L | 11.0± _{1.0} | |
| Hold down tape width | W0 | 11.5 min. | |
| Hold down tape position | W2 | 1.5±1.5 | |
| Coating extension on lead | е | Up to the end of | crimp |
| Body thickness | Т | Please refer to [| Part number list]. |

7-2. Splicing way of tape

1) Adhesive force of tape is over 3N at test condition as below.



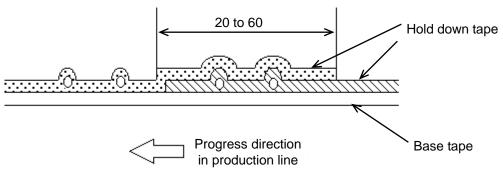
- 2) Splicing of tape
 - a) When base tape is spliced
 - •Base tape should be spliced by cellophane tape. (Total tape thickness should be less than 1.05mm.)



No lifting for the direction of progressing

Unit: mm

- b) When hold down tape is spliced
 - •Hold down tape should be spliced with overlapping. (Total tape thickness should be less than 1.05mm.)



- c) When both tape are spliced
 - •Base tape and hold down tape should be spliced with splicing tape.
- 3) Missing components
 - •There should be no consecutive missing of more than three components.
 - •The number of missing components should be not more than 0.5% of total components that should be present in a Ammo pack.

EU RoHS and Halogen Free

This products of the following crresponds to EU RoHS and Halogen Free

(1) RoHS

EU RoHs 2011/65/EC compliance

maximum concentration values tolerated by weight in homogeneous materials

- •1000 ppm maximum Lead
- •1000 ppm maximum Mercury
- •100 ppm maximum Cadmium
- •1000 ppm maximum Hexavalent chromium
- •1000 ppm maximum Polybrominated biphenyls (PBB)
- •1000 ppm maximum Polybrominated diphenyl ethers (PBDE)

(2) Halogen-Free

The International Electrochemical Commission's (IEC) Definition of Halogen-Free (IEC 61249-2-21) compliance

- •900 ppm maximum chlorine
- •900 ppm maximum bromine
- •1500 ppm maximum total chlorine and bromine