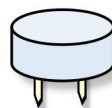
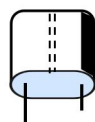


台灣智烽維科技有限公司

Taiwan Zhifengwei Technology Co., Ltd.

2021 產品目錄 PRODUCT CATALOG



超級電容器
SUPER CAPACITORS



鋰離子電容器
LITHIUM ION CAPACITORS



誠信鑄就品質 創新引領未來

INTEGRITY CREATES QUALITY, INNOVATION LEADS THE FUTURE

■ 超級電容器使用注意事項

Precautions for the use of super capacitors

□ 超級電容器的極性和使用電壓

■ Polarity and voltage of super capacitor

1. 超級電容器具有極性，請勿施加反向的電壓或者交流電壓。若長時間施加反向電壓的話不僅會縮短其使用壽命，還可能造成漏液等致命傷害。

2. 超級電容器的額定電壓為超級電容器正常工作可使用的最高電壓，所以超級電容器兩端請勿施加高過額定電壓的電壓，在高電壓下使用不僅會縮短使用壽命，還會因電化學反應造成氣體發生量增加，漏液，破裂等致命故障。

1. The super capacitor has polarity, please do not apply reverse voltage or AC voltage. If the reverse voltage is applied for a long time, it will not only shorten its service life, but may also cause fatal injuries such as liquid leakage.

2. The rated voltage of the super capacitor is the highest voltage that can be used in the normal operation of the super capacitor, so please do not apply a voltage higher than the rated voltage on both ends of the super capacitor. Using under high voltage will not only shorten the service life, but also due to electrochemical reaction Fatal failures such as increased gas generation, liquid leakage, and rupture.

□ 有紋波電流流經電路的使用注意事項：

■ Precautions for use of circuits with ripple current flowing through them:

1. 超級電容器內部電阻要比其他電解電容器高，紋波電流會使其發熱，在預測使用壽命時要加入考慮範圍；

2. 請在加上紋波電流造成的電壓變動部分的最大使用電壓以下使用；

3. 超級電容器內部電阻較高，一般不適用於紋波吸收，請用符合用途的低內阻產品。

1. The internal resistance of supercapacitors is higher than that of other electrolytic capacitors, and the ripple current will cause it to heat up. It should be considered when predicting the service life;

2. Please use it below the maximum operating voltage of the voltage fluctuation part caused by the ripple current;

3. The internal resistance of supercapacitors is relatively high, which is generally not suitable for ripple absorption. Please use low internal resistance products suitable for the purpose.

□ 周圍溫度對超級電容器的影響

■ The influence of ambient temperature on supercapacitors

1. 超級電容器的使用壽命受使用溫度的影響，一般情況下，使用溫度降低 10 °C，超級電容器的使用壽命會延長 2 倍，請盡量在低

於最高使用溫度的低溫環境下使用。超過最高使用溫度使用的話，可能會造成特性急劇劣化，破損。

2. 超級電容器的使用溫度不僅要確認設備周圍溫度，內部溫度，還要確認設備內發熱體（功率電晶體、電阻等）的放射熱，紋波電流引起的自行發熱溫度。此外，還請勿將發熱體安裝在超級電容器的背面。

1. The service life of supercapacitors is affected by the operating temperature. Under normal circumstances, if the service temperature is reduced by 10°C, the service life of the supercapacitors will be extended by 2 times. Please try to use them in a low temperature environment below the maximum use temperature. If it is used above the maximum operating temperature, it may cause rapid deterioration and damage to its characteristics.

2. The use temperature of supercapacitors should not only confirm the surrounding temperature and internal temperature of the equipment, but also confirm the radiant heat of the heating elements (power transistors, resistors, etc.) in the equipment and the self-heating temperature caused by ripple current. In addition, do not install the heating element on the back of the super capacitor.

□ 壽命計算

■ Life calculation

$$L_2 = L_1 \times 2^{(T_1 - T_2 / 10)}$$

L1 : 溫在溫度 T1°C 時的壽命(h)

L2 : 在溫度 T2°C 時的壽命(h)

T1 : 分類上限（最大使用）溫度(°C)

T2 : 為計算出壽命的周圍溫度+紋波電流發熱溫度(°C)

* 周圍溫度也影响寿命。在下列超过条件的环境下使用时，请咨询本公司。

L1 : Lifetime at temperature T1°C (h)

L2 : Lifetime (h) at temperature T2°C

T1: Classification upper limit (maximum use) temperature (°C)

T2 : Ambient temperature + ripple current heating temperature (°C) for calculating the lifetime

* Ambient temperature also affects life.

Please consult our company when using in an environment exceeding the following conditions.

拆卸，修正超級電容器周圍的零部件時，

□ 作為後備電源時的電壓降

■ Voltage drop when used as a backup

power supply

當主電源關閉時，超級電容器將從電源失效檢驗模式轉為後備電源工作模式，此時由於瞬間啟動電流及電容內阻將導致開路電壓下降。請根據相關產品介紹中所列出的阻抗和使用電流確定正確的產品型號。

When the main power supply is turned off, the super capacitor will switch from the power failure inspection mode to the backup power supply operation mode. At this time, the open circuit voltage will drop due to the instantaneous starting current and the internal resistance of the capacitor. Please determine the correct product model based on the impedance and current used in the relevant product introduction.

□ 串聯

■ Tandem

串聯超級電容器時要保證電壓平衡，可考慮將電阻器與超級電容器並聯，而起到漏電分壓的作用。

When connecting a super capacitor in series, it is necessary to ensure the voltage balance. Consider connecting the resistor in parallel with the super capacitor to play the role of leakage voltage divider.

□ 超級電容器的焊接

■ Welding of super capacitors

在印刷電路板焊接超級電容器產品時，如果超級電容器熱過度應激的話，不僅其電氣特性劣化，而且還會因氣密性不良以及內壓上升造成漏液，短路等超越外觀的致命故障，請遵守以下內容：

1. 使用電烙鐵焊接：

作業時，烙鐵請勿接觸到產品主體，請將烙鐵的溫度控制在 350 °C 以下，4 秒以內焊接完成。如果連續焊接作業，請預留 15 秒的時間間隔在 3 次內焊接完成。

2. 流動焊接：

a. 焊接時超級電容器請勿接觸焊錫槽；

b. 焊接時請將產品主體溫度控制在 100 °C 60 秒以內，峰值溫度 105 °C 以內進行。標準條件如下圖所示。另外，即便是在規定溫度範圍內，產品溫度也有可能因電路板尺寸，周圍零部件的關係上升幅度超過預期，因此建議確認焊接時超級電容器產品主體溫度。

c. 其他熱應激

使用硬化烤箱烘烤電路板，固定樹脂時，請將產品表面溫度控制在 100 °C 以下 60 秒以內（最高 105°C）此外，該時還應將產品的殘餘電壓控制在 0.3 V 以下；

在電路板上焊接過一次的产品拆下後請勿再使用，拆卸可能會發生熱應激，進行手焊修正時請遵照（1）使用電烙鐵焊接的內容；

注意不要讓超級電容器過渡受熱

d. 其他

為提高可焊接性，在引線、焊腳上會有鍍錫層，因此銼刀等摩擦可能會損傷鍍錫層造成可焊接性降低。

對引線、焊腳施加強力的話，可能會發生斷裂，偏離造成特性劣化。

Soldering super auxiliary products on the printed circuit board, if the super auxiliary heat assist function is used, you can electrify yourself, and there will be typical critical faults such as poor air tightness, increased internal pressure, liquid leakage, short circuit, etc. Please be humble with the following:

1. Use an electric soldering iron to solder:

During the working time, the soldering iron should not touch the main body of the product. The temperature of the soldering iron should be controlled below 350°C, and the soldering should be completed within 4 seconds.

2. Circulation welding:

a. Super prevent contact with solder bath during soldering;

b. Temperature: When welding, the temperature of the main body of the product is controlled within 100°C for 60 seconds, and the maximum temperature is within 105°C. The prescribed standard conditions are shown in the figure below. In addition, it may be within the temperature range, and the product temperature may also be due to the size of the circuit board. It should be because the upper limit of the product exceeds expectations. Therefore, it is recommended to confirm the main body temperature of the super product during soldering.

c. Other heat stress

Use the hardening oven to bake the circuit board. When fixing the resin, please control the surface temperature of the product under 100 °C within 60 seconds (maximum 105°C). In addition, the residual voltage of the product should be controlled below 0.3 V at this time;

Do not use the product that has been soldered on the circuit board once after it is removed. Thermal stress may occur when removed. When performing hand soldering correction, please follow the content of (1) soldering with an electric soldering iron;

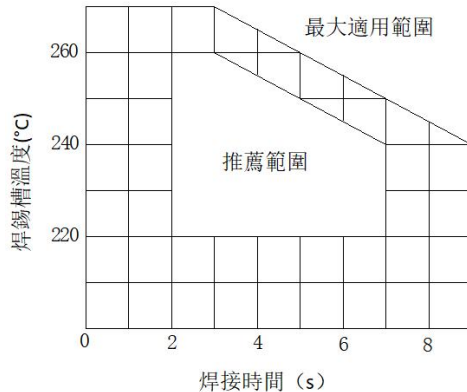
When disassembling and correcting the parts around the super capacitor, be careful not to overheat the super capacitor

d. Other

In order to improve the solderability, there is a tin-plated layer on the leads and solder feet. Therefore, friction such as files may damage the tin-plated layer and reduce the solderability.

If a strong force is applied to the lead wire and solder foot, it may break and deviate and cause the characteristics to deteriorate.

預熱溫度: 110 °C以下 (基板表面溫度)
 100°C以下 (產品實體溫度)
 預熱時間: 60 s以下
 基板厚度: 0.8 mm以上
 Preheating temperature: low 110°C (substrate surface temperature)
 Low 100°C (product physical temperature)
 Warm-up time: less than 60 s
 Substrate thickness: 0.8 mm or more



□ 超級電容器安裝使用後的注意事項

■ Precautions after installation and use

請勿在下列環境中使用裝有超級電容器的設備:

1. 水、鹽水以及油會直接碰到超級電容器的環境;
2. 光直接照射到超級電容器的環境;
3. 溫高濕狀態下, 容易在超級電容器表面形成露水的環境;
4. 級電容器會接觸到各種活性氣體的環境;
5. 空氣中充滿酸、堿的環境;
6. 高頻感應的環境;
7. 過度振動, 衝擊的環境。

Do not use equipment equipped with super capacitors in the following environments:

1. The environment where water, salt water and oil will directly touch the super capacitor;
2. The environment where the light is directly irradiated to the super capacitor;
3. Under the condition of high temperature and high humidity, it is easy to form a dew environment on the surface of the super capacitor;
4. Class-level capacitors will be exposed to various active gas environments;
5. An environment full of acids and alkalis in the air;
6. High-frequency induction environment;
7. Excessive vibration and shock environment.

□ 發生緊急情況時注意事項

■ Things to note in an emergency

超級電容器發生異常發熱的情況時, 會從外封裝樹脂裏面產生煙霧。因此應迅速將設備主電源切斷終止使用。此外, 超級電容器處於高溫狀態時, 請勿將臉部、手等身體部位接近

超級電容器, 以免造成燙傷。

When the supercapacitor generates heat abnormally, smoke will be generated from the resin of the outer package. Therefore, the main power supply of the equipment should be cut off immediately to terminate the use. In addition, when the super capacitor is in a high temperature state, please do not bring your face, hands and other body parts close to the super capacitor to avoid burns.

□ 超級電容器的維護和保存

■ Maintenance and preservation

請勿將超級電容器保存在高溫、高濕的環境中, 建議在室溫 25 ± 10 °C, 相對濕度小於 80% 的環境中在包裝完好的狀態下保存 (建議保存期限不要超過 24 個月)。

請勿在以下環境中保存:

1. 有水會濺到超級電容器或高溫高濕度, 產生結露的環境;
2. 有油會濺到超級電容器或充滿油成分空氣的環境;
3. 有鹽水會濺到超級電容器或充滿鹽分的環境;
4. 充滿酸性有害氣體 (硫化氫、亞硫酸、氯氣、溴、甲基溴等) 的環境;
5. 有酸性、鹼性溶劑會濺射到的環境;
6. 直射陽光, 臭氧, 紫外線以及放射線直接照射的環境;
7. 會給超級電容器帶來振動衝擊的環境。

Do not store the supercapacitor in a high temperature and high humidity environment. It is recommended to store the supercapacitor in an environment with a room temperature of 25 ± 10 °C and a relative humidity of less than 80% in a well-packaged state (the storage period is recommended not to exceed 24 months).

Do not store in the following environment:

1. There is an environment where water will splash on the super capacitor or high temperature and humidity, resulting in condensation;
2. The oil will splash into the super capacitor or the environment filled with oily air;
3. Salt water will splash on the super capacitor or the environment full of salt;
4. An environment full of acidic harmful gases (hydrogen sulfide, sulfurous acid, chlorine, bromine, methyl bromide, etc.);
5. There are environments where acidic and alkaline solvents will sputter;
6. Environments exposed to direct sunlight, ozone, ultraviolet rays and radiation;
7. The environment that will bring vibration and shock to the super capacitor.

□ 超級電容器的報廢

■ Retirement of supercapacitors

超級電容器由各種金屬、樹脂構成, 因此報廢時請按工業廢棄物處理。

Supercapacitors are composed of various metals and resins, so please dispose of them as industrial waste.

■ 鋰離子電容器使用注意事項

Precautions for the use of lithium ion capacit

□ 使用 !

■ During Operation

1. 鋰離子電容器的使用溫度不宜超過額定溫度上限或下限。
2. 鋰離子電容器應在額定電壓區間下使用。
3. 鋰離子電容器在使用之前請確認極性 (+) 和 (-)，禁止反接。
4. 外界環境溫度對鋰離子電容器的壽命具有重要影響，請遠離熱源。
5. 鋰離子電容器請勿直接接觸水、油、酸或堿。
6. 請勿擠壓、釘刺或拆解鋰離子電容器。
7. 請勿隨意丟棄鋰離子電容器，廢棄時請根據國家環保標準進行處理。
8. 本產品發貨前已具有一定電壓值，使用過程切勿使正負極端子短路，常見產品短路情況如下表所示。
9. 請勿將新舊電容器混合使用，不要使用不同類型的電容器再一起。
10. 如果串聯兩個或多個電容器，請提前諮詢我們，可能因負載不平衡或引起電容器失效報廢。
11. 電容器遠離陽光直射、高溫和高濕度，這可能會導致電容器性能下降。

1. Working temperature of LIC should not exceed the upper and lower limits of the rated temperature.

2. LIC should be used at rated voltage.

3. Please confirm the polarity (+) and (-) of lithium ion capacitors before use, and reverse connection is prohibited.

4. Keep LIC away from heat. The temperature has a big influence on the working life of LIC.

5. No direct contacting with water, oil, acid or alkaline.

6. No crushing, nail penetrating or disassembling LIC.

7. No discarding. Dispose LIC based on the State Environmental-protection Standard.

8. The cell embraced constant voltage before shipment, therefore, the short circuit should be extremely forbidden. Familiar short circuit is shown in the following table.

9. Do not use new and used capacitors together. Do not use different types of capacitors together.

10. If two or more capacitors are connected in series, please consult us in advance, as the load may be unbalanced or the capacitor may become invalid.

11. Keep the capacitor away from direct sunlight, high temperature and humidity, which may cause the performance of the capacitor to decrease.

□ 儲存 !

■ Storage

1. 鋰離子電容器不可處於相對濕度為 85% 以上或含有有毒氣體的場所，該種環境下引線及殼體易受潮及腐蝕，導致鋰離子電容器斷路。

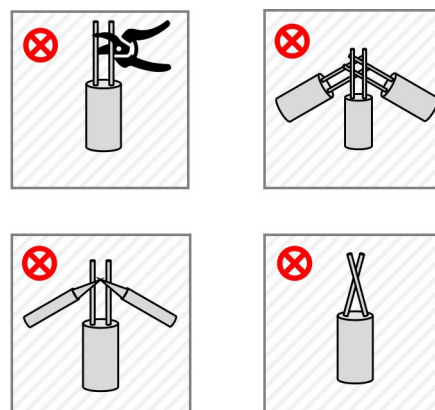
2. 鋰離子電容器若需長期儲存，請在溫度 10~55℃，相對濕度 60% 以下，通風良好的場所存放，嚴禁暴曬。

1. No storage in a condition with a relative humidity exceeding 85% or with toxic gases. It is easy to cause the damage and corrosion of the terminals and case, resulting in disconnection.

2. For Long-term storage, place LIC in a well-ventilated condition at 10 to 55℃, with a relative humidity below 60%. Forbidden to sun directly.

□ 常見的使用過程產品短路情形

■ Common Short Circuit Situations



□ 安全符號說明

■ Description of Safety Symbols

	該符號表示被禁止的行為 This symbol indicates an action that is prohibited.
	此符號表示必須嚴格遵守的說明 This symbol indicates instructions that must be followed without fail.
	此符號表示一般注意事項 This symbol indicates a general caution.

□ 以防止電容器中的品質問題 ⚠

■ Prevent quality problems in capacitors

1. 不建議回流焊接或波浪焊電容器（手工焊接），以免引起電容器的劣化，嚴重的在這種情況下，電容器可能會開始膨脹或洩漏液體失效。

2. 在焊接過程中避免使電容器過熱：若在焊接中使電容器出現過熱現象，會降低電容器的使用壽命，例如：如果使用厚度為 1.6mm 的印刷線路板，焊接過程應為 260℃，時間不超過 5s；（焊接類型：Sn — 3Ag — 0.5Cu 焊接槽溫度：260±5℃ 浸漬時間：10±1 秒 浸漬深度：從本體 1.5~2.0mm）。

3. 注意工作溫度，環境溫度對電容器的使用壽命影響很大，通過將溫度降低 10 攝氏度，其壽命大約可以增加一倍。

4. 注意洗滌和乾燥，一些清潔劑或高溫乾燥會導致電容器劣化，如果您需要清洗電容器，請諮詢我們。

5. 請在額定電壓範圍內使用，請在額定電壓（2.5V-3.8/4.0V）範圍內使用本產品。若外加電壓超過額定電壓，則會損害電容器的壽命，有時還會導致發熱，漏液等。

6. 本電容器加裝有壓力閥，主體內部的壓力異常上升時，將損壞此壓力閥，排放內部的氣壓。為了使壓力閥有效，設置之時請在壓力閥的上部留出規定空間（直徑未滿 ϕ 18mm 的產品：2mm 以上，直徑 ϕ 18mm 以上的產品：3mm 以上）。

1. It is not recommended to reflow soldering or wave soldering capacitors (only hand soldering), so as not to cause deterioration of the capacitors. Seriously, in this case, the capacitors may start to expand or leak liquid.

2. Avoid overheating the capacitor during the soldering process: If the capacitor is overheated during soldering, the service life of the capacitor will be reduced. For example, if a printed circuit board with a thickness of 1.6mm is used, the soldering process should be 260℃ and the time should not exceed 5s. ; (Welding type: Sn — 3Ag — 0.5Cu Soldering bath temperature: 260±5℃, immersion time: 10±1 seconds, immersion depth: 1.5~2.0mm from the body).

3. Pay attention to the operating temperature. The ambient temperature greatly affects the lifetime of the capacitor. By reducing the temperature by 10deg.-C, the lifetime can be approximately doubled.

4. Pay attention to washing and drying. Some detergent or high temperature drying cause deteriorates of capacitor. If you need to wash capacitors, consult us.

5. Please use it within the rated voltage range. Please use this product within the rated voltage (2.5V-3.8/4.0V). If the applied voltage exceeds the rated voltage, the life of the product will be damaged, and sometimes it will cause heat, leakage, etc.

6. When the pressure inside the main body rises abnormally, the pressure valve will be

damaged and the internal air pressure will be discharged. In order to make the pressure valve effective, please leave a predetermined space above the pressure valve when installing (products with a diameter of less than ϕ 18mm: 2mm or more, diameter Products above ϕ 18mm: above 3mm).

□ 鋰離子電容器的安全性 ⚡

■ Safety of Li-ion Capacitors

針刺
Pinprick



擠壓&短路
Squeeze & Short

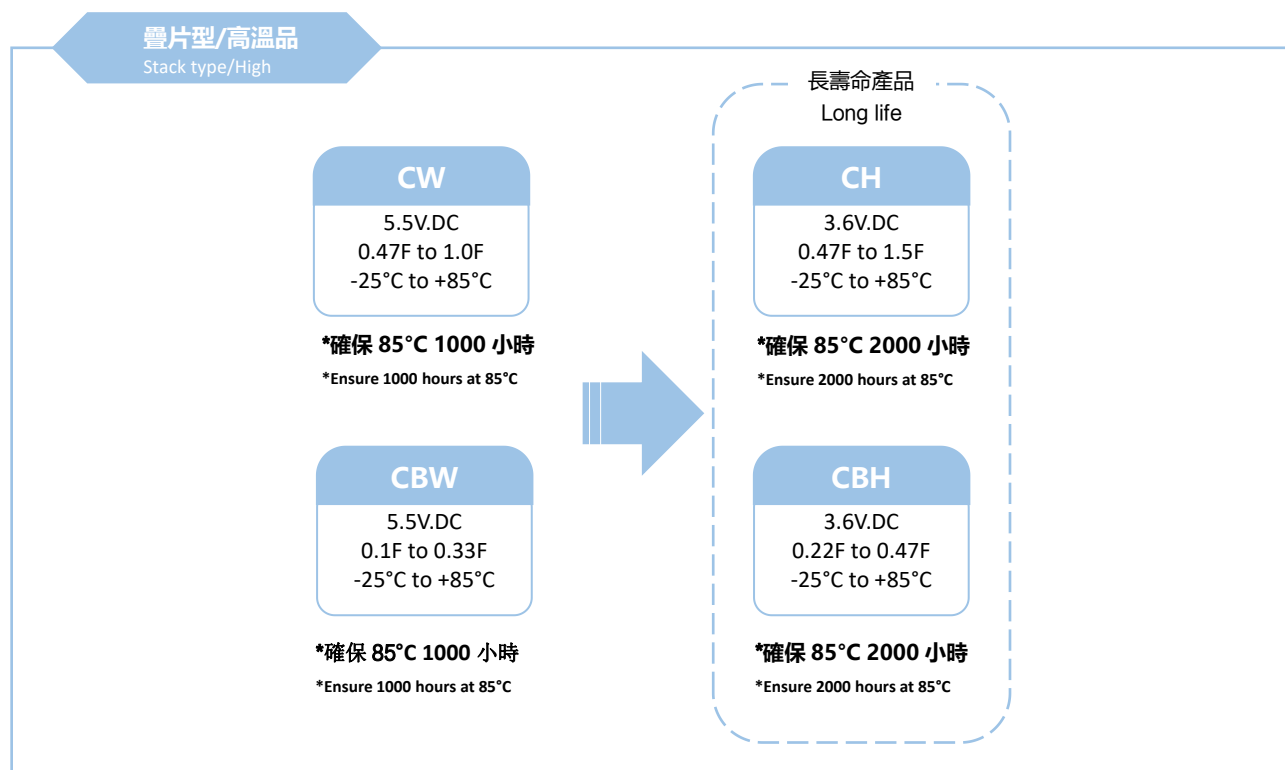
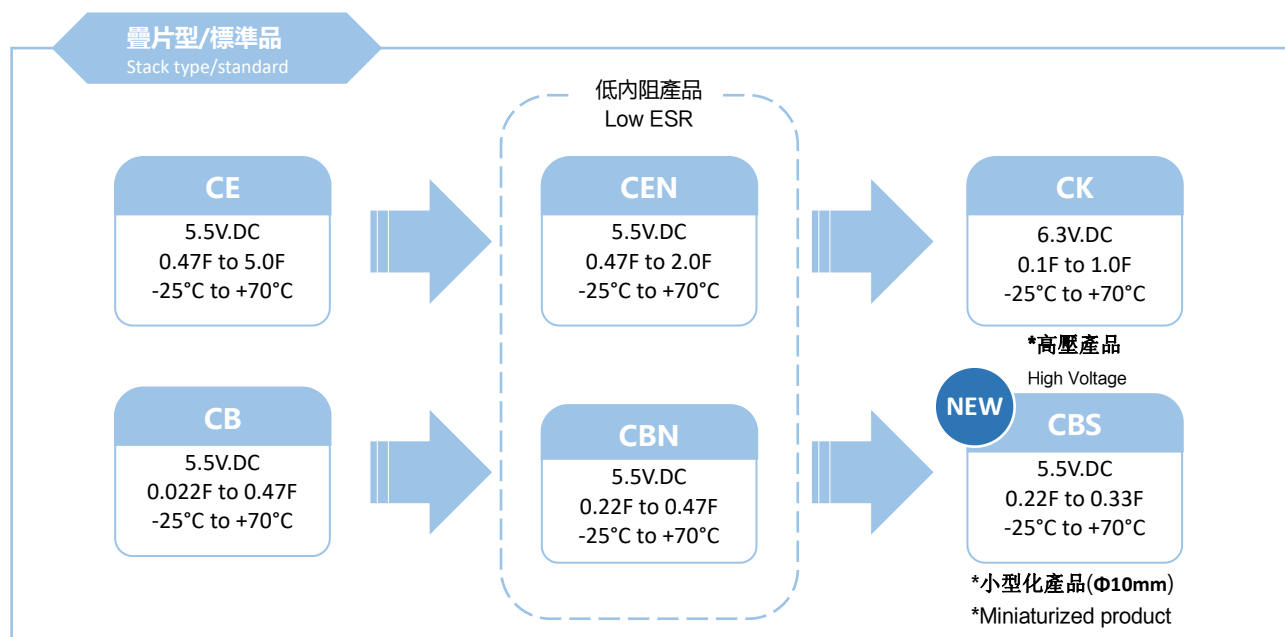


* 鋰離子電容器在針刺、擠壓、短路的情況下不會發生爆炸、起火、二次起火等危險狀況。

* Lithium-ion capacitors will not explode, catch fire, secondary fires and other dangerous situations in the case of acupuncture, extrusion, and short circuit.

產品體系架構圖

Product Architecture Diagram



卷绕模组型/標準品

Winding module type/standard

標準模組產品

Standard module products

CXHP

2.7V.DC
0.25F to 120F
-40°C to +70°C

CXP

3.0V.DC
1.0F to 480F
-40°C to +65°C

***高壓產品**
High voltage

CHP

5.5V.DC
0.22F to 60F
-40°C to +70°C

CSP

6.0V.DC
0.47F to 60F
-40°C to +65°C

CZP

7.5V~9.0V.DC
0.22F to 6.5F
-40°C to +65°C

CPM

10.8V~12V.DC
0.1F to 12F
-40°C to +70°C

CHM

5.5V~9.0V.DC
0.22F to 5.0F
-40°C to +65°C

***灌膠防潮產品**
*Moisture-proof products

CMZ

8.1V~32.4V.DC
0.41F to 30F
-40°C to +65°C

***小型模組產品**
確保 65°C 1000 小時
*Small module
Ensure 1000h@65°C

卷绕模组型/高可靠性

Stack type/standard

超低內阻產品

Low ESR

CHV

2.7V.DC
1.0F to 600F
-40°C to +65°C

確保 65°C 2000 小時
Guaranteed 2000 hours
at 65° C

CHQ

2.7V.DC
1.0F to 600F
-40°C to +70°C

CHW

2.7V.DC
1.0F to 100F
-40°C to +85°C

確保 85°C 1000 小時
Guaranteed 1000 hours
at 85° C

NEW

CHMV

3.9 V.DC
0.47F to 5.0F
-40°C to +65°C

確保 65°C 5000 小時
Guaranteed 5000 hours
at 65° C

CHT

5.5V.DC
0.22F to 60F
-40°C to +85°C

高溫高濕長壽命產品
Standard module products
確保 85°C 1000 小時
Guaranteed 1000 hours at 85° C

CZM

8.1V~32.4V.DC
0.41F to 30F
-40°C to +65°C

訂制車規模組產品
Standard module products

NEW

CHPV

3.9 V.DC
0.47F to 5.0F
-40°C to +65°C

確保 65°C 5000 小時
Guaranteed 5000 hours
at 65° C

卷绕型/锂离子电容器

Stack type/LIC



電壓請勿低於 2.5V

The voltage should not be lower than 2.5V

標準品
Standard

LIC

3.8V.DC
10F to 750F
-20°C to +65°C

LIC-DT

3.8V.DC
120F/500F/750F
-40°C to +65°C低溫品
low temperature

LIC-L

3.8V.DC
10F to 750F
-20°C to +65°C引線品
lead product

NEW

LIB

4.0V.DC
200F to 1100F
-40°C to +65°C高容量品
high capacity

贴片型

SMD type

待量產中

In mass production

標準品
Standard

CSN

5.5V.DC
0.047F to 0.33F
-25°C to +70°C

CST

5.5V.DC
0.047F to 0.22F
-25°C to +85°C確保85°C1000小時
Guaranteed 1000 hours
at 85° C

CSV

3.6V.DC
0.047F to 0.47F
-25°C to +85°C確保85°C2000小時
Guaranteed 2000 hours
at 85° C

產品型號代碼體系表

Product model code system table

疊片型
coin type

CB

5R5

224

H

F

①產品系列編碼

②額定電壓編碼

③產品容量編碼

④產品封裝編碼

⑤環保體系編碼

⑥特殊編碼

①Product series code

②Rated voltage code

③Capacity coding

④Encapsulation code

⑤Environmental code

⑥Special code

①產品系列：請參閱每個系列的頁面。

①Product series: Please refer to the page of each series.

②額定電壓：

②Rated voltage:

編碼 Code	額定電壓 Rated voltage
3R6	3.6V
5R5	5.5V
6R3	6.3V

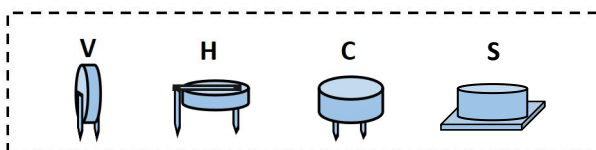
③產品容量：

③Product capacity:

編碼 Code	產品容量 Capacity
223	0.022F
224	0.22F
105	1.0F
...	...

④產品封裝：

④Product packaging:



⑤環保體系：

⑤Environmental protection system:



⑥特殊編碼：根據使用的特殊性定義編碼，若不需要特殊定制，則不需要特殊編碼。

⑥Special code: Define the code according to the particularity of use. If no special customization is required, no special code is required.

卷繞/模組型 Winding/Module

CHV

2R7

106

R

TWX

S1

①產品系列編碼

②額定電壓編碼

③產品容量編碼

④環保體系編碼

⑤封裝編碼

⑥腳型編碼

⑦特殊編碼

①Product series code ②Rated voltage code

③Capacity coding

④Environmental code

⑤Encapsulation code

⑥Foot code

⑦Special code

①產品系列：請參閱每個系列的頁面。

①Product series: Please refer to the page of each series.

②額定電壓：

②Rated voltage:

編碼 Code	額定電壓 Rated voltage
2R7	2.7V
3R0	3.0V
5R5	5.5V
...	...

⑦特殊編碼：根據使用的特殊性定義編碼，若不需要特殊定制，則不需要特殊編碼。

模組型增加代碼：L
Modular type add code: L

③產品容量：

③Product capacity:

編碼 Code	產品容量 Capacity
504	0.5F
106	10F
607	600F
...	...

④環保體系：

④Environmental protection system:

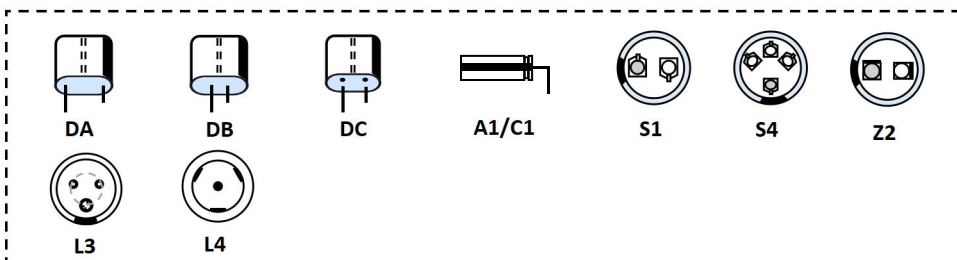


⑤封裝尺寸：TW 常规尺寸.TWX/TWQ/TWV 特殊尺寸。

⑤Package size: TW regular size. TWX/TWQ/TWV special size.

⑥產品腳型：

⑥Product foot type:



LIC 卷繞型
LIC series

LIC

1840

Q

3R8

507

DT

①產品系列編碼

②產品尺寸編碼

③產品外觀編碼

④額定電壓編碼

⑤產品容量編碼

⑥產品特性編碼

⑦特殊編碼

①Product series code

②Product size code

③Appearance code

④Rated voltage code

⑤Capacity coding

⑥Product feature code

⑦Special code

①產品系列：請參閱每個系列的頁面。

①Product series: Please refer to the page of each series.

②產品尺寸：

②Product size:

尺寸編碼 Code	0613	0813	1335	1640	1840
尺寸(mm) Size	6x13	8x13	13x35	16x40	18x40

③產品外觀：Q 卷繞型圓柱式

③Product appearance: Q winding cylindrical type

④額定電壓：

④Rated voltage:

編碼 Code	額定電壓 Rated voltage
3R8	3.8V
4R0	4.0V

⑤產品容量：

⑤Product capacity:

編碼 Code	產品容量 Capacity
106	10F
506	50F
107	100F
507	500F
118	1100F

⑥產品特性編碼：L / 引线链接 DT / 低温系列产品

⑥Product feature code: L / Lead Link DT / Low Temperature Series

⑦特殊編碼：根據使用的特殊性定義編碼，若不需要特殊定制，則不需要特殊編碼。

⑦Special encoding: define the encoding according to the particularity of use, if no special customization is required, no special encoding is required.



电压请勿低于 2.5V

The voltage should not be lower than 2.5V

多串模組/卷繞型
Module/winding

CZM

1860

S

106

32R4

W

DA

①產品系列編碼 ②產品尺寸編碼 ③容量公差編碼 ④產品容量編碼 ⑤額定電壓編碼 ⑥均衡屬性編碼 ⑦封裝編碼
①Product series code ②Product size code ③Tolerance coding ④Capacity coding ⑤Rated voltage code ⑥Equalization Code ⑦Package code

①產品系列：請參閱每個系列的頁面。

①Product series: Please refer to the page of each series.

②產品尺寸：1860 體現單隻電容尺寸，具體模組尺寸請參閱系列頁面

②Product size: 1860 reflects the size of a single capacitor, please refer to the series page for the specific module size

③容量公差：

③Capacity tolerance:

編碼 Code	公差% Tolerance%
S	-20~+50
M	-20~+20
R	0~+30
V	-10~+30
X	-0~+100

④產品容量：

④Product capacity:

編碼 Code	產品容量 Capacity
335	3.3F
106	10F
206	20F
306	30F

⑤額定電壓：

⑤Rated voltage:

編碼 Code	8R1	16R2	32R4	...
電壓 Voltage	8.1V	16.2V	32.4V	...

⑥均衡屬性：

⑥Equalization Code:

編碼 Code	W	P	A
均衡屬性 Equalization	無均衡 No equalization	被動均衡 passive equalization	主動均衡 Active equalization

⑦封裝編碼：

⑦Package code:

編碼 Code	DA	LA	WA
封裝 Package	裝盒引線鏈接 Boxed Lead Links	引線鏈接 leader link	無引線 No link

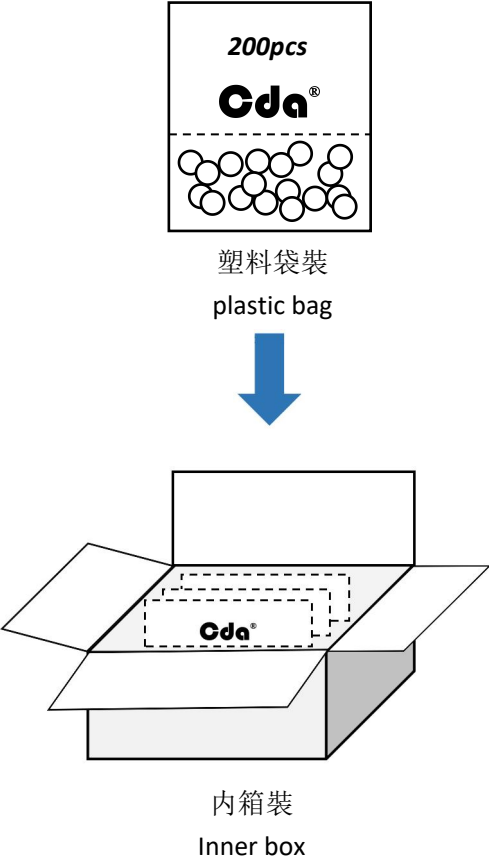
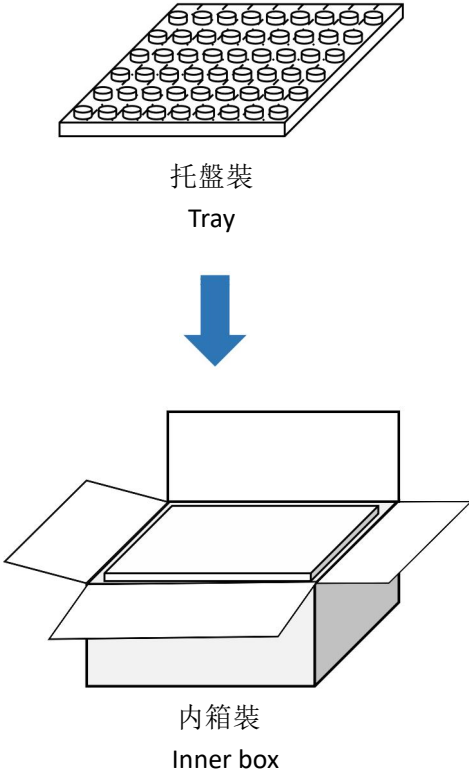
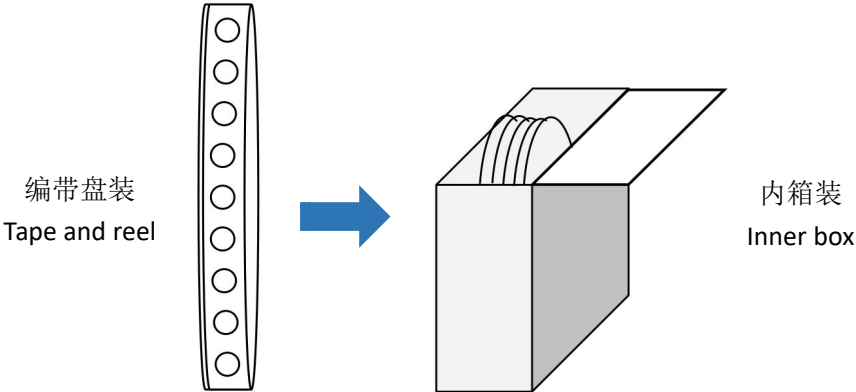
環保體系：

Environmental protection system:



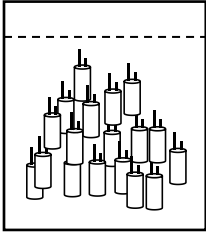
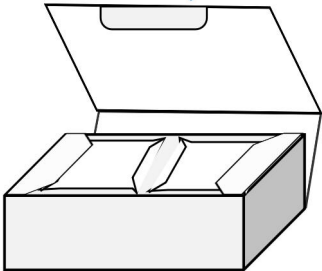
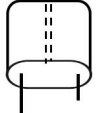
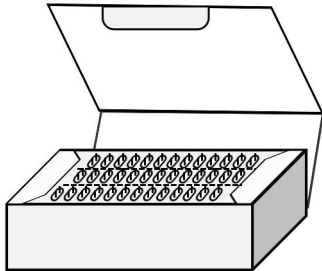
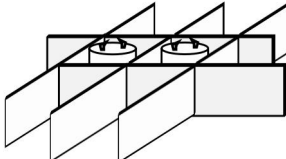
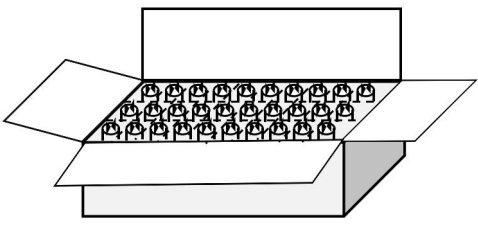
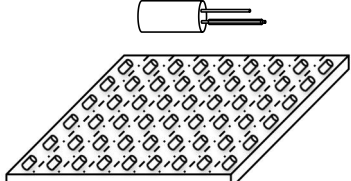
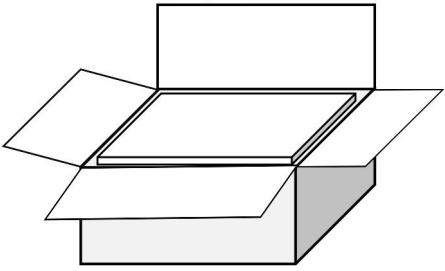
硬幣型標準包裝規格

Coin Type Standard Packaging Specifications

適用系列 Applicable series	CB, CBN, CBS, CBH, CBW	CE, CEN, CK, CW, CH
包裝形式 Package style	 200pcs Cda[®] 塑料袋裝 plastic bag 內箱裝 Inner box	 托盤裝 Tray 內箱裝 Inner box
適用系列 Applicable series	CSN, CST, CSV	
包裝形式 Package style	 編帶盤裝 Tape and reel 內箱裝 Inner box	

捲繞型標準包裝規格

Coiled Standard Packaging Specifications

適用系列 Applicable series	CXHP,CHV,CXP,CHW,CHQ,CHB,CHP,CSP (Φ18 以下)	CHP,CSP,CHM,CHT,CZP,CMZ (W:18 以上)
包裝形式 Package style	 塑料袋裝 plastic bag   內箱裝 Inner box	 单个排列裝 Tray   內箱裝 Inner box
適用系列 Applicable series	CHV,CHQ,CXP (Φ22 以上)	LIC,LIB
包裝形式 Package style	 分格裝 compartmentalized  	 托盤裝 Tray  

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Please understand that our company may change the design and specifications without prior notice. Please be sure to ask our company for relevant technical specifications before purchasing and using our products. If you have any doubts about the safety of the product, please contact our company immediately.

CB series

標準品
Standard

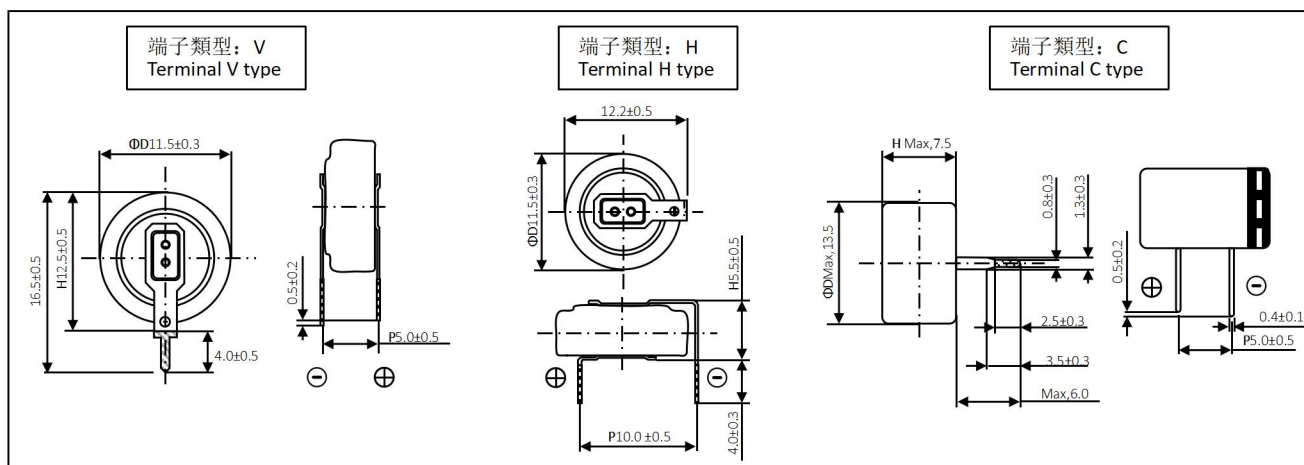
- 可在-25℃至 70℃的寬溫度範圍內使用
- 70℃ 1,000 小時
- 符合 RoHS 指令/無爆炸危險
- Able to be used at wide temperature from -25℃ to 70℃
- Long life Endurance : 1,000 hours at +70℃
- RoHS directive compliant / No Explosion Hazard



規格表 Specification Table

Operating temperature 工作溫度	-25℃ to +70℃
Capacitance range 容量範圍	0.022F to 0.47F
Capacitance tolerance 容量誤差	- 20% to + 80% (at 25℃)
Rated voltage 額定電壓	5.5 VDC
Temperature characteristics 溫度特性	Capacitance change: Within $\pm 50\%$ of initial measured value at +25℃ Internal resistance: Within $\pm 500\%$ of initial measured value at +25℃ 容量變化：在+25℃時初始測量值的 $\pm 50\%$ 範圍內 內阻：在+25℃時，初始測量值的 $\pm 500\%$ 範圍內
Endurance (At rated voltage&max. Operating temp) 耐久性能變化 (在額定電壓和最大值下。正在操作溫度)	After 1000 hours: Capacitance change: $\pm 30\%$ of initial rated value Internal resistance: Within 4 times of initial specified value 1000 小時後： 容量變化：為初始額定值的 $\pm 30\%$ 內阻：在初始規定值的 4 倍內
Shelf life 儲存壽命	After 2 years at 25℃ without load, the capacitor shall meet the specified endurance limits. 在 25℃ 無負載條件下工作 2 年後，電容器應達到規定的耐久性極限。

尺寸圖 Dimensions



型號列表 Model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 容量 (F)	Internal Resistance 內阻 (Ω) at 1 kHz	V type(mm)			H type(mm)			C type(mm)		
				ΦD	H	P	ΦD	H	P	ΦD	H	P
CB 5R5 223 ()	5.5	0.022	≤ 75	11.5	12.5	5.0	11.5	5.5	10.0	13.5	7.5	5.0
CB 5R5 473 ()	5.5	0.047	≤ 75	11.5	12.5	5.0	11.5	5.5	10.0	13.5	7.5	5.0
CB 5R5 104 ()	5.5	0.1	≤ 75	11.5	12.5	5.0	11.5	5.5	10.0	13.5	7.5	5.0
CB 5R5 224 ()	5.5	0.22	≤ 75	11.5	12.5	5.0	11.5	5.5	10.0	13.5	7.5	5.0
CB 5R5 334 ()	5.5	0.33	≤ 50	11.5	12.5	5.0	11.5	5.5	10.0	13.5	7.5	5.0
CB 5R5 474 ()	5.5	0.47	≤ 50	11.5	12.5	5.0	11.5	5.5	10.0	13.5	7.5	5.0

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Please understand that our company may change the design and specifications without prior notice. Please be sure to ask our company for relevant technical specifications before purchasing and using our products. If you have any doubts about the safety of the product, please contact our company immediately.

CBN Series

低阻抗品
Expectant

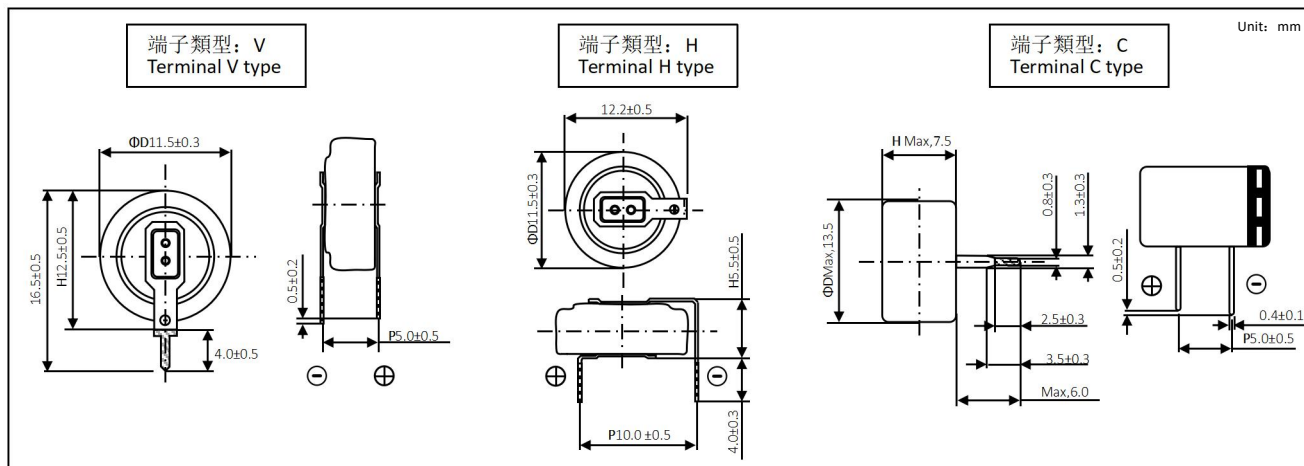
- 可在-25℃至 70℃的寬溫度範圍內使用
- 70℃ 1,000 小時, 內阻
- 符合 RoHS 指令/無爆炸危險
- Able to be used at wide temperature from -25℃ to 70℃
- Long life Endurance : 1,000 hours at +70℃
- RoHS directive compliant / No Explosion Hazard



規格表 Specification

Operating temperature 工作溫度	-25℃ to +70℃
Capacitance range 容量範圍	0.22F to 0.47F
Capacitance tolerance 容量誤差	- 20% to + 80% (at 25℃)
Rated voltage 額定電壓	5.5 VDC
Temperature characteristics 溫度特性	Capacitance change: Within $\pm 30\%$ of initial measured value at +25℃ Internal resistance: Within $\pm 500\%$ of initial measured value at +25℃ 容量變化: 在+25℃時初始測量值的 $\pm 30\%$ 範圍內 內阻: 在+25℃時, 初始測量值的 $\pm 500\%$ 範圍內
Endurance (At rated voltage&max. Operating temp) 耐久性能變化 (在額定電壓和最大值下。正在操作溫度)	After 1000 hours: Capacitance change: $\pm 30\%$ of initial rated value Internal resistance: Within 4 times of initial specified value 1000 小時後: 容量變化: 為初始額定值的 $\pm 30\%$ 內阻: 在初始規定值的 4 倍內
Shelf life 儲存壽命	After 2 years at 25℃ without load, the capacitor shall meet the specified endurance limits. 在 25℃ 無負載條件下工作 2 年後, 電容器應達到規定的耐久性極限。

尺寸圖 Dimensions(not to scale)



型號列表 Model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 容量 (F)	Internal Resistance 內阻 (Ω) at 1 kHz	V type(mm)			H type(mm)			C type(mm)		
				Φ D	H	P	Φ D	H	P	Φ D	H	P
CBN 5R5 224 ()	5.5	0.22	≤ 25	11.5	12.5	5.0	11.5	5.5	10.0	13.5	7.5	5.0
CBN 5R5 334 ()	5.5	0.33	≤ 25	11.5	12.5	5.0	11.5	5.5	10.0	13.5	7.5	5.0
CBN 5R5 474 ()	5.5	0.47	≤ 25	11.5	12.5	5.0	11.5	5.5	10.0	13.5	7.5	5.0

CBH series

高溫長壽命品
High temperature long life product

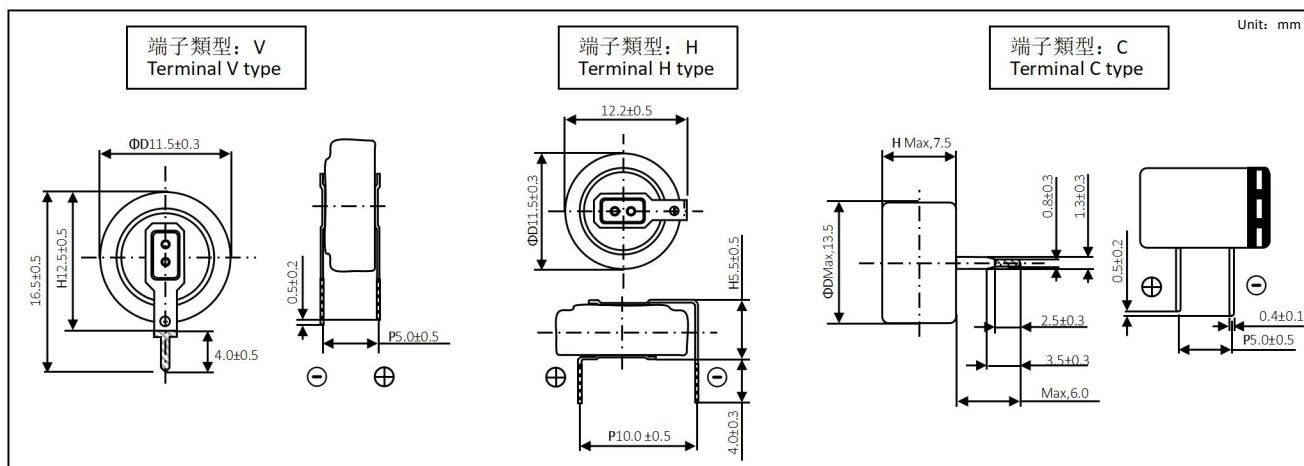
- 可在-25℃至 85℃ 的寬溫範圍內使用
- 長壽命: +85℃ 2,000 小時
- 符合 RoHS 指令/無爆炸危險
- Able to be used at wide temperature from -25℃ to 85℃
- Long life Endurance : 2,000 hours at +85℃
- RoHS directive compliant / No Explosion Hazard



規格表 Specification Table

Operating temperature 工作溫度	-25℃ to +85℃
Capacitance range 容量範圍	0.22F to 0.47F
Capacitance tolerance 容量誤差	- 20% to + 80% (at 25℃)
Rated voltage 額定電壓	3.6 VDC
Temperature characteristics 溫度特性	Capacitance change: Within $\pm 50\%$ of initial measured value at +25℃ Internal resistance: Within $\pm 500\%$ of initial measured value at +25℃ 容量變化: 在+25℃ 時初始測量值的 $\pm 50\%$ 範圍內 內阻: 在+25℃ 時, 初始測量值的 $\pm 500\%$ 範圍內
Endurance (At rated voltage&max. Operating temp) 耐久性能變化 (在額定電壓和最大值下。正在操作溫度)	After 2000 hours: Capacitance change: $\pm 30\%$ of initial rated value Internal resistance: Within 5 times of initial specified value 2000 小時後: 容量變化: 為初始額定值的 $\pm 30\%$ 內阻: 在初始規定值的 5 倍內
Shelf life 儲存壽命	After 2 years at 25℃ without load, the capacitor shall meet the specified endurance limits. 在 25℃ 無負載條件下工作 2 年後, 電容器應達到規定的耐久性極限。

尺寸圖 Dimensions



型號列表 Model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 容量 (F)	Internal Resistance 內阻 (Ω) at 1 kHz	V type(mm)			H type(mm)			C type(mm)		
				Φ D	H	P	Φ D	H	P	Φ D	H	P
CBH 3R6 224 ()	3.6	0.22	≤ 75	11.5	12.5	5.0	11.5	5.5	10.0	13.5	7.5	5.0
CBH 3R6 334 ()	3.6	0.33	≤ 50	11.5	12.5	5.0	11.5	5.5	10.0	13.5	7.5	5.0
CBH 3R6 474 ()	3.6	0.47	≤ 50	11.5	12.5	5.0	11.5	5.5	10.0	13.5	7.5	5.0

CBW series

高溫品
High Temperature

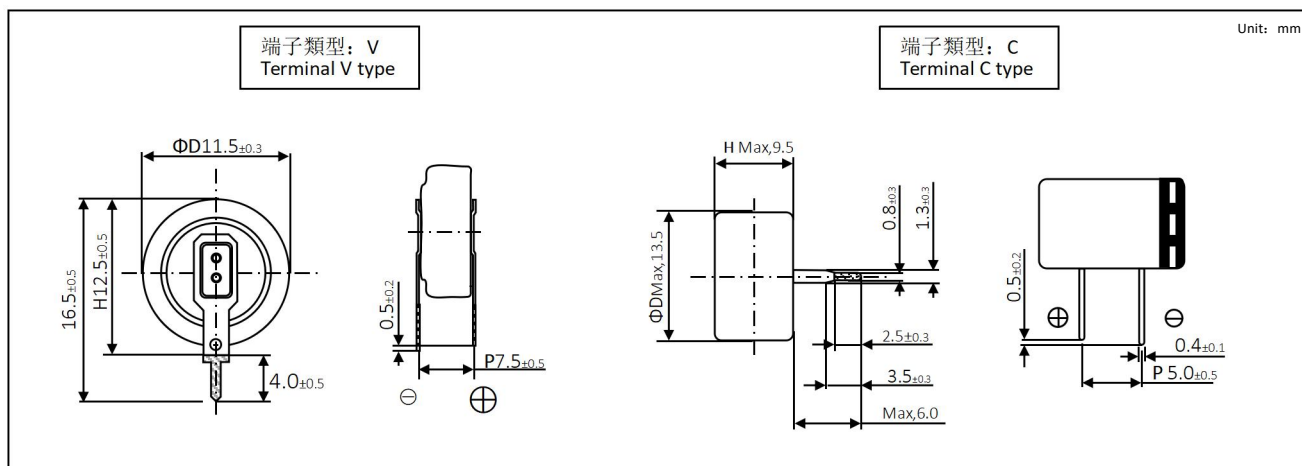
- 可在-25℃至 85℃ 的寬溫範圍內使用
- 長壽命: +85℃ 1,000 小時
- 符合 RoHS 指令/無爆炸危險
- Able to be used at wide temperature from -25℃ to 85℃
- Long life Endurance : 1,000 hours at +85℃
- RoHS directive compliant / No Explosion Hazard



規格表 Specification Table

Operating temperature 工作溫度	-25℃ to +85℃
Capacitance range 容量範圍	0.1F to 0.33F
Capacitance tolerance 容量誤差	- 20% to + 80% (at 25℃)
Rated voltage 額定電壓	5.5 VDC
Temperature characteristics 溫度特性	Capacitance change: Within $\pm 50\%$ of initial measured value at +25℃ Internal resistance: Within $\pm 500\%$ of initial measured value at +25℃ 容量變化: 在+25℃時初始測量值的 $\pm 50\%$ 範圍內 內阻: 在+25℃時初始測量值的 $\pm 500\%$ 範圍內
Endurance (At rated voltage & max. Operating temp) 耐久性能變化 (在額定電壓和最大值下。正在操作溫度)	After 1000 hours: Capacitance change: $\pm 30\%$ of initial rated value Internal resistance: Within 4 times of initial specified value 1000 小時後: 容量變化: 為初始額定值的 $\pm 30\%$ 內阻: 在初始規定值的 4 倍內
Shelf life 儲存壽命	After 2 years at 25℃ without load, the capacitor shall meet the specified endurance limits. 在 25℃ 無負載條件下工作 2 年後, 電容器應達到規定的持久性極限。

尺寸圖 Dimensions



型號列表 Model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 容量 (F)	Internal Resistance 內阻 (Ω) at 1 kHz	V type(mm)			C type(mm)		
				ΦD	H	P	ΦD	H	P
CBW 5R5 104 ()	5.5	0.1	≤ 120	11.5	12.5	7.5	13.5	9.5	5.0
CBW 5R5 224 ()	5.5	0.22	≤ 75	11.5	12.5	7.5	13.5	9.5	5.0
CBW 5R5 334 ()	5.5	0.33	≤ 75	11.5	12.5	7.5	13.5	9.5	5.0

CBS series

小形化標準品
Small size standard

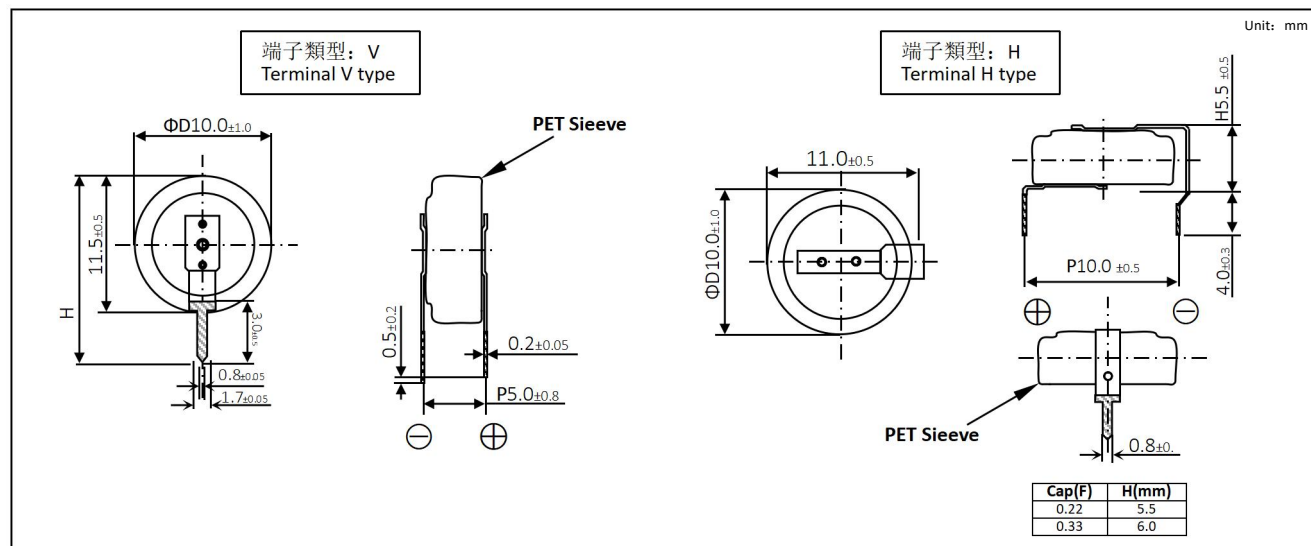
- 可在-25℃至 70℃ 的寬溫範圍內使用
- 長壽命: +70℃ 1,000 小時
- 符合 RoHS 指令/無爆炸危險/小尺寸
- Able to be used at wide temperature from -25℃ to 70℃
- Long life Endurance : 1,000 hours at +70℃
- RoHS directive compliant / No Explosion Hazard/Small size



規格表 Specification Table

Operating temperature 工作溫度	-25℃ to +70℃
Capacitance range 容量範圍	0.22F to 0.33F
Capacitance tolerance 容量誤差	- 20% to + 80% (at 25℃)
Rated voltage 額定電壓	5.5 VDC
Temperature characteristics 溫度特性	Capacitance change: Within $\pm 50\%$ of initial measured value at +25℃ Internal resistance: Within $\pm 500\%$ of initial measured value at +25℃ 容量變化: 在+25℃時初始測量值的 $\pm 50\%$ 範圍內 內阻: 在+25℃時初始測量值的 $\pm 500\%$ 範圍內
Endurance (At rated voltage&max. Operating temp) 耐久性能變化 (在額定電壓和最大值下。正在操作溫度)	After 1000 hours: Capacitance change: $\pm 30\%$ of initial rated value Internal resistance: Within 4 times of initial specified value 1000 小時後: 容量變化: 為初始額定值的 $\pm 30\%$ 內阻: 在初始規定值的 4 倍內
Shelf life 儲存壽命	After 2 years at 25℃ without load, the capacitor shall meet the specified endurance limits. 在 25℃ 無負載條件下工作 2 年後, 電容器應達到規定的耐久性極限。

尺寸圖 Dimensions



型號列表 Model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 容量 (F)	Internal Resistance 內阻 (Ω) at 1 kHz	V type(mm)			H type(mm)		
				ΦD	H	P	ΦD	H	P
CBS 5R5 224 ()	5.5	0.22	≤75	10	14.0	5.0	10	5.5	10.0
CBS 5R5 334 ()	5.5	0.33	≤75	10	14.0	5.0	10	6.0	10.0

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CE series

標準品
Standard

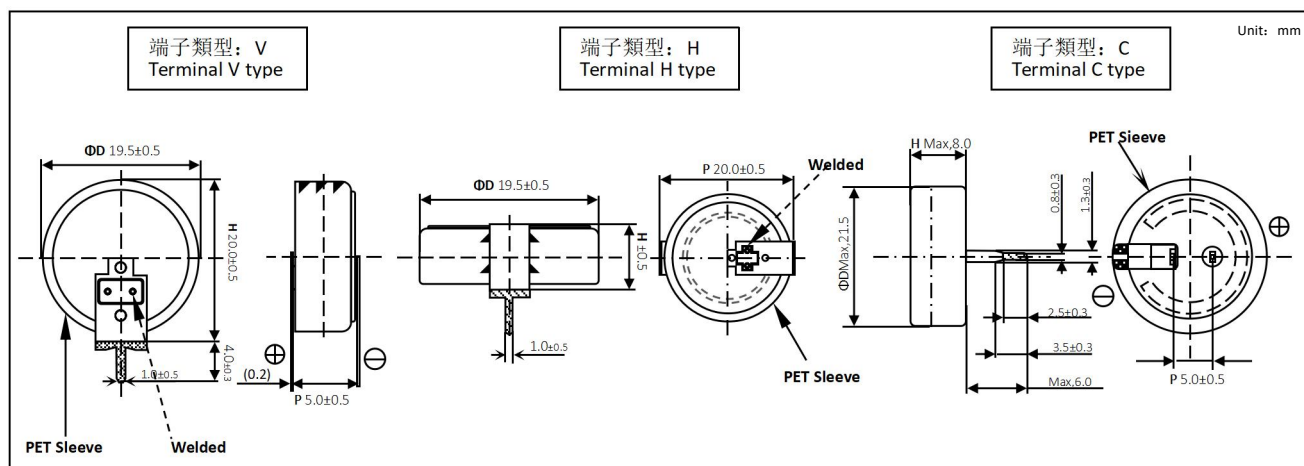
- 可在-25℃至 70℃ 的寬溫範圍內使用
- 長壽命: +70℃ 1,000 小時
- 符合 RoHS 指令/無爆炸危險
- Able to be used at wide temperature from -25℃ to 70℃
- Long life Endurance : 1,000 hours at +70℃
- RoHS directive compliant / No Explosion Hazard



規格表 Specification Table

Operating temperature 工作溫度	-25℃ to +70℃
Capacitance range 容量範圍	0.47F to 5.0F
Capacitance tolerance 容量誤差	- 20% to + 80% (at 25℃)
Rated voltage 額定電壓	5.5 VDC
Temperature characteristics 溫度特性	Capacitance change: Within $\pm 50\%$ of initial measured value at +25℃ Internal resistance: Within $\pm 500\%$ of initial measured value at +25℃ 容量變化: 在+25℃時初始測量值的 $\pm 50\%$ 範圍內 內阻: 在+25℃時初始測量值的 $\pm 500\%$ 範圍內
Endurance (At rated voltage&max. Operating temp) 耐久性能變化 (在額定電壓和最大值下。正在操作溫度)	After 2000 hours: Capacitance change: $\pm 30\%$ of initial rated value Internal resistance: Within 5 times of initial specified value 2000 小時後: 容量變化: 為初始額定值的 $\pm 30\%$ 內阻: 在初始規定值的 5 倍內
Shelf life 儲存壽命	After 2 years at 25℃ without load, the capacitor shall meet the specified endurance limits. 在 25℃ 無負載條件下工作 2 年後, 電容器應達到規定的耐久性極限。

尺寸圖 Dimensions



型號列表 Model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 容量 (F)	Internal Resistance 內阻 (Ω) at 1 kHz	V type(mm)			H type(mm)			C type(mm)		
				ØD	H	P	ØD	H	P	ØD	H	P
CE 5R5 474 ()	5.5	0.47	≤ 30	19.5	20.0	5.0	19.5	6.5	20.0	21.5	8.0	5.0
CE 5R5 105 ()	5.5	1.0	≤ 30	19.5	20.0	5.0	19.5	6.5	20.0	21.5	8.0	5.0
CE 5R5 155 ()	5.5	1.5	≤ 30	19.5	20.0	5.0	19.5	6.5	20.0	21.5	8.0	5.0
CE 5R5 405 ()	5.5	4.0	≤ 15	25.0	26.0	7.0	25.0	7.0	26.0	/	/	/
CE 5R5 505 ()	5.5	5.0	≤ 15	25.0	26.0	7.0	25.0	7.0	26.0	/	/	/

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CEN series

低阻抗品
Low Impedance

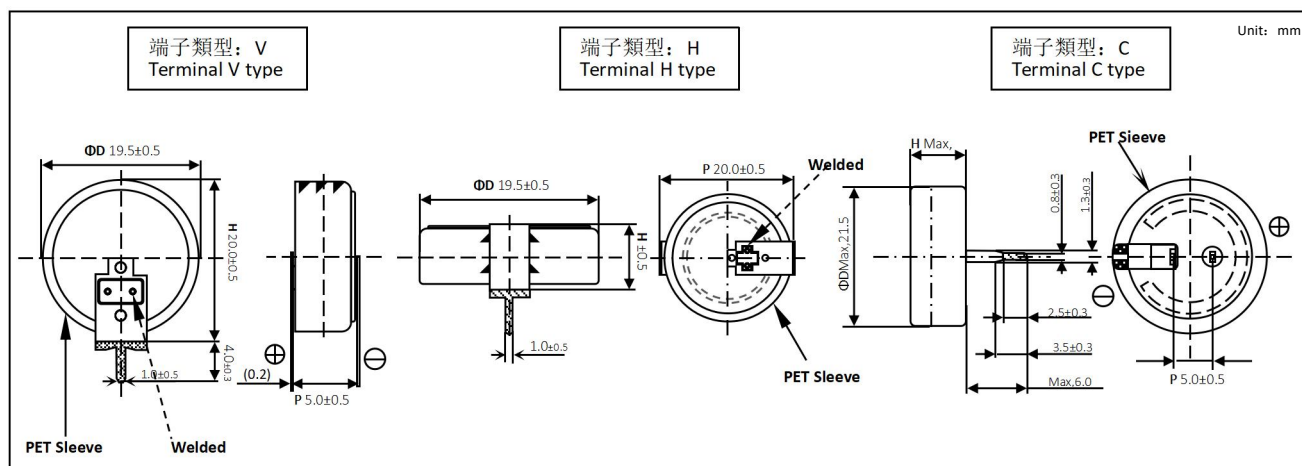
- 可在-25℃至 70℃ 的宽温范围内使用
- 长寿命: +70℃ 1,000 小时
- 符合 RoHS 指令/無爆炸危險
- Able to be used at wide temperature from -25℃ to 70℃
- Long life Endurance : 1,000 hours at +70℃
- RoHS directive compliant / No Explosion Hazard



規格表 Specification Table

Operating temperature 工作溫度	-25℃ to +70℃
Capacitance range 容量範圍	0.47F to 2.0F
Capacitance tolerance 容量誤差	- 20% to + 80% (at 25℃)
Rated voltage 額定電壓	5.5 VDC
Temperature characteristics 溫度特性	Capacitance change: Within $\pm 50\%$ of initial measured value at +25℃ Internal resistance: Within $\pm 500\%$ of initial measured value at +25℃ 容量變化: 在+25℃時初始測量值的 $\pm 50\%$ 範圍內 內阻: 在+25℃時初始測量值的 $\pm 500\%$ 範圍內
Endurance (At rated voltage&max. Operating temp) 耐久性能變化 (在額定電壓和最大值下。正在操作溫度)	After 2000 hours: Capacitance change: $\pm 30\%$ of initial rated value Internal resistance: Within 4 times of initial specified value 2000 小時後: 容量變化: 為初始額定值的 $\pm 30\%$ 內阻: 在初始規定值的 4 倍內
Shelf life 儲存壽命	After 2 years at 25℃ without load, the capacitor shall meet the specified endurance limits. 在 25℃ 無負載條件下工作 2 年後, 電容器應達到規定的耐久性極限。

尺寸圖 Dimensions



型號列表 Model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 容量 (F)	Internal Resistance 內阻 (Ω) at 1 kHz	V type(mm)			H type(mm)			C type(mm)		
				ΦD	H	P	ΦD	H	P	ΦD	H	P
CEN 5R5 474 ()	5.5	0.47	≤ 25	19.5	20.0	5.0	19.5	6.5	20.0	21.5	8.0	5.0
CEN 5R5 684 ()	5.5	0.68	≤ 20	19.5	20.0	5.0	19.5	6.5	20.0	21.5	8.0	5.0
CEN 5R5 105 ()	5.5	1.0	≤ 20	19.5	20.0	5.0	19.5	6.5	20.0	21.5	8.0	5.0
CEN 5R5 155 ()	5.5	1.5	≤ 20	19.5	20.0	5.0	19.5	6.5	20.0	21.5	8.0	5.0
CEN 5R5 205 ()	5.5	2.0	≤ 20	19.5	20.0	5.0	19.5	7.0	20.0	21.5	8.5	5.0

CH series

長壽命品
Long life

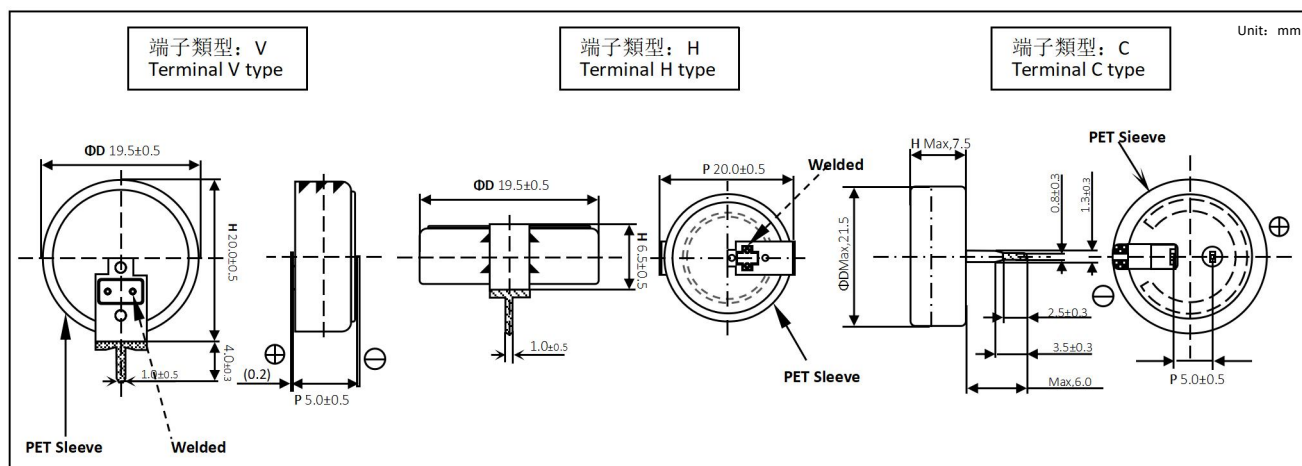
- 可在-25℃至 85℃的寬溫範圍內使用
- 長壽命: +85℃ 2,000 小時
- 符合 RoHS 指令/無爆炸危險
- Able to be used at wide temperature from -25℃ to 85℃
- Long life Endurance : 2,000 hours at +85℃
- RoHS directive compliant / No Explosion Hazard



規格表 Specification Table

Operating temperature 工作溫度	-25℃ to +85℃
Capacitance range 容量範圍	0.47F to 1.5F
Capacitance tolerance 容量誤差	- 20% to + 80% (at 25℃)
Rated voltage 額定電壓	3.6 VDC
Temperature characteristics 溫度特性	Capacitance change: Within $\pm 50\%$ of initial measured value at +25℃ Internal resistance: Within $\pm 500\%$ of initial measured value at +25℃ 容量變化: 在+25℃時初始測量值的 $\pm 50\%$ 範圍內 內阻: 在+25℃時初始測量值的 $\pm 500\%$ 範圍內
Endurance (At rated voltage & max. Operating temp) 耐久性能變化 (在額定電壓和最大值下。正在操作溫度)	After 2000 hours: Capacitance change: $\pm 30\%$ of initial rated value Internal resistance: Within 5 times of initial specified value 2000 小時後: 容量變化: 為初始額定值的 $\pm 30\%$ 內阻: 在初始規定值的 5 倍內
Shelf life 儲存壽命	After 2 years at 25℃ without load, the capacitor shall meet the specified endurance limits. 在 25℃ 無負載條件下工作 2 年後, 電容器應達到規定的耐久性極限。

尺寸圖 Dimensions



型號列表 Model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 容量 (F)	Internal Resistance 內阻 (Ω) at 1 kHz	V type(mm)			H type(mm)			C type(mm)		
				ØD	H	P	ØD	H	P	ØD	H	P
CH 3R6 474 ()	3.6	0.47	≤ 25	19.5	20.0	5.0	19.5	6.5	20.0	21.5	8.0	5.0
CH 3R6 105 ()	3.6	1.0	≤ 25	19.5	20.0	5.0	19.5	6.5	20.0	21.5	8.0	5.0
CH 3R6 155 ()	3.6	1.5	≤ 25	19.5	20.0	5.0	19.5	6.5	20.0	21.5	8.0	5.0

CK series

高耐壓品
High pressure product

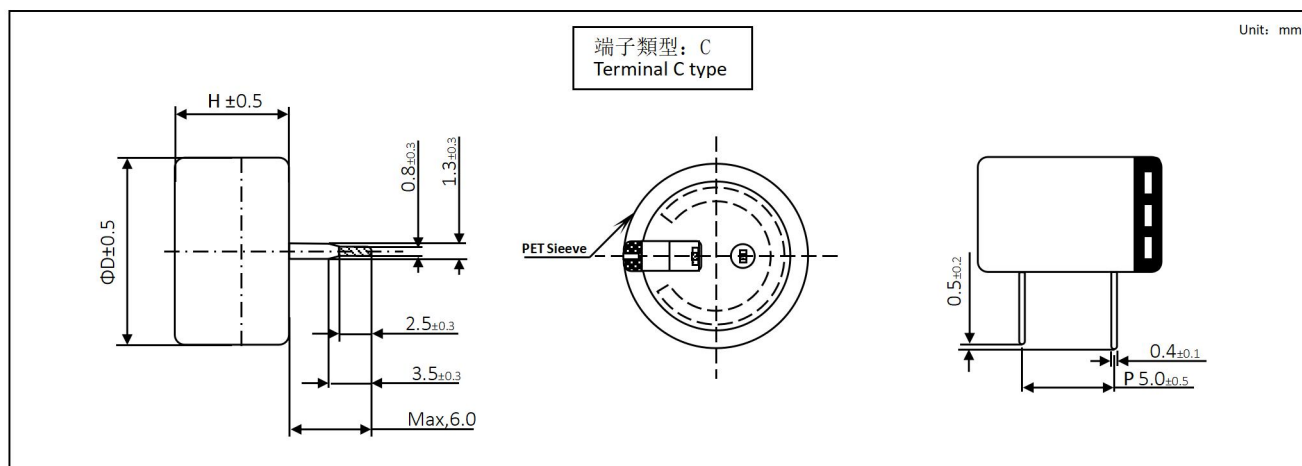
- 可在-25℃至 70℃ 的寬溫範圍內使用
- 長壽命: +70℃ 1,000 小時
- 符合 RoHS 指令/無爆炸危險
- Able to be used at wide temperature from -25℃ to 70℃
- Long life Endurance : 1,000 hours at +70℃
- RoHS directive compliant / No Explosion Hazard



規格表 Specification Table

Operating temperature 工作溫度	-25℃ to +70℃
Capacitance range 容量範圍	0.1F to 1.0F
Capacitance tolerance 容量誤差	- 20% to + 80% (at 25℃)
Rated voltage 額定電壓	6.3 VDC
Temperature characteristics 溫度特性	Capacitance change: Within $\pm 50\%$ of initial measured value at +25℃ Internal resistance: Within $\pm 500\%$ of initial measured value at +25℃ 容量變化: 在+25℃時初始測量值的 $\pm 50\%$ 範圍內 內阻: 在+25℃時初始測量值的 $\pm 500\%$ 範圍內
Endurance (At rated voltage&max. Operating temp) 耐久性能變化 (在額定電壓和最大值下。正在操作溫度)	After 2000 hours: Capacitance change: $\pm 30\%$ of initial rated value Internal resistance: Within 4 times of initial specified value 2000 小時後: 容量變化: 為初始額定值的 $\pm 30\%$ 內阻: 在初始規定值的 4 倍內
Shelf life 儲存壽命	After 2 years at 25℃ without load, the capacitor shall meet the specified endurance limits. 在 25℃ 無負載條件下工作 2 年後, 電容器應達到規定的耐久性極限。

尺寸圖 Dimensions



型號列表 Model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 容量 (F)	Internal Resistance 內阻 (Ω) at 1 kHz	C type(mm)		
				ΦD	H	P
CK 6R3 104 ()	6.3	0.1	≤ 75	13.5	9.5	5.0
CK 6R3 334 ()	6.3	0.33	≤ 75	13.5	9.5	5.0
CK 6R3 684 ()	6.3	0.68	≤ 50	21.5	10.5	5.0
CK 6R3 105 ()	6.3	1.0	≤ 30	21.5	10.5	5.0

CW series

耐高溫品
High Temperature

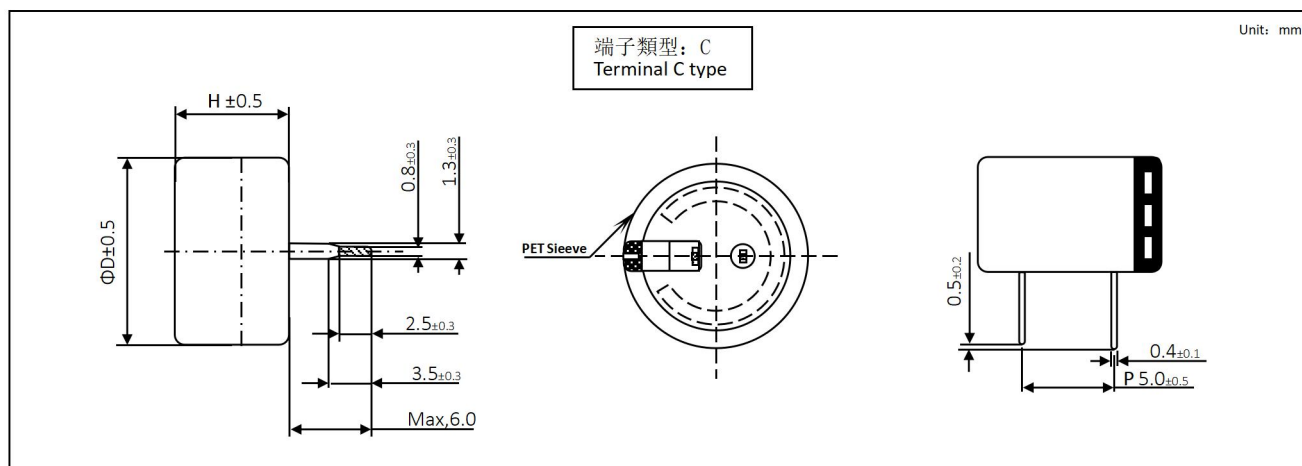
- 可在-25℃至 85℃ 的寬溫範圍內使用
- 長壽命: +85℃ 1,000 小時
- 符合 RoHS 指令/無爆炸危險
- Able to be used at wide temperature from -25℃ to 85℃
- Long life Endurance : 1,000 hours at +85℃
- RoHS directive compliant / No Explosion Hazard



規格表 Specification Table

Operating temperature 工作溫度	-25℃ to +70℃
Capacitance range 容量範圍	0.47F to 1.0F
Capacitance tolerance 容量誤差	- 20% to + 80% (at 25℃)
Rated voltage 額定電壓	5.5 VDC
Temperature characteristics 溫度特性	Capacitance change: Within $\pm 50\%$ of initial measured value at +25℃ Internal resistance: Within $\pm 500\%$ of initial measured value at +25℃ 容量變化: 在+25℃時初始測量值的 $\pm 50\%$ 範圍內 內阻: 在+25℃時初始測量值的 $\pm 500\%$ 範圍內
Endurance (At rated voltage&max. Operating temp) 耐久性能變化 (在額定電壓和最大值下。正在操作溫度)	After 2000 hours: Capacitance change: $\pm 30\%$ of initial rated value Internal resistance: Within 4 times of initial specified value 2000 小時後: 容量變化: 為初始額定值的 $\pm 30\%$ 內阻: 在初始規定值的 4 倍內
Shelf life 儲存壽命	After 2 years at 25℃ without load, the capacitor shall meet the specified endurance limits. 在 25℃ 無負載條件下工作 2 年後, 電容器應達到規定的耐久性極限。

尺寸圖 Dimensions



型號列表 Model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 容量 (F)	Internal Resistance 內阻 (Ω) at 1 kHz	C type(mm)		
				ΦD	H	P
CW 5R5 474 CF	5.5	0.47	≤ 50	21.5	10.5	5.0
CW 5R5 684 CF	5.5	0.68	≤ 50	21.5	10.5	5.0
CW 5R5 105 CF	5.5	1.0	≤ 30	21.5	10.5	5.0

CSN series

待產
Expectant

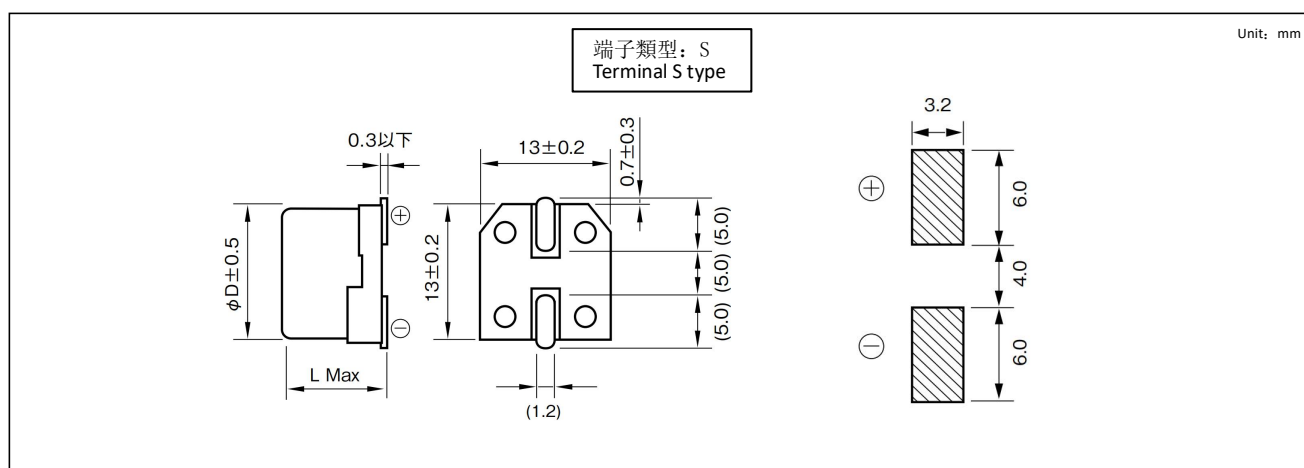
- 可在-25℃至 70℃ 的寬溫範圍內使用
- 長壽命: +70℃ 1,000 小時
- 支持回流峰值溫度 260° C
- 符合 RoHS 指令/無爆炸危險
- Able to be used at wide temperature from -25℃ to 70℃
- Long life Endurance : 1,000 hours at +70℃
- Support reflow peak temperature 260℃
- RoHS directive compliant / No Explosion Hazard



規格表 Specification Table

Operating temperature 工作溫度	-25℃ to +70℃
Capacitance range 容量範圍	0.047F to 0.33F
Capacitance tolerance 容量誤差	- 20% to + 80% (at 25℃)
Rated voltage 額定電壓	5.5 VDC
Temperature characteristics 溫度特性	Capacitance change: Within ±30% of initial measured value at +25℃ Internal resistance: Within ±500% of initial measured value at +25℃ 容量變化: 在+25℃時初始測量值的±30%範圍內 內阻: 在+25℃時初始測量值的±500%範圍內
Endurance (At rated voltage&max. Operating temp) 耐久性能變化 (在額定電壓和最大值下。正在操作溫度)	After 1000 hours: Capacitance change: ±30% of initial rated value Internal resistance: Within 4 times of initial specified value 1000 小時後: 容量變化: 為初始額定值的±30% 內阻: 在初始規定值的 4 倍內
Shelf life 儲存壽命	After 2 years at 25℃ without load, the capacitor shall meet the specified endurance limits. 在 25℃ 無負載條件下工作 2 年後, 電容器應達到規定的耐久性極限。

尺寸圖 Dimensions



型號列表 Model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 容量 (F)	Internal Resistance 內阻 (Ω) at 1 kHz	S type(mm)	
				ΦD	L
CSN 5R5 473 SF	5.5	0.047	≤30	13.5	8.5
CSN 5R5 104 SF	5.5	0.1	≤30	13.5	8.5
CSN 5R5 224 SF	5.5	0.22	≤30	13.5	8.5
CSN 5R5 334 SF	5.5	0.33	≤30	13.5	8.5

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CST series

待產
Expectant

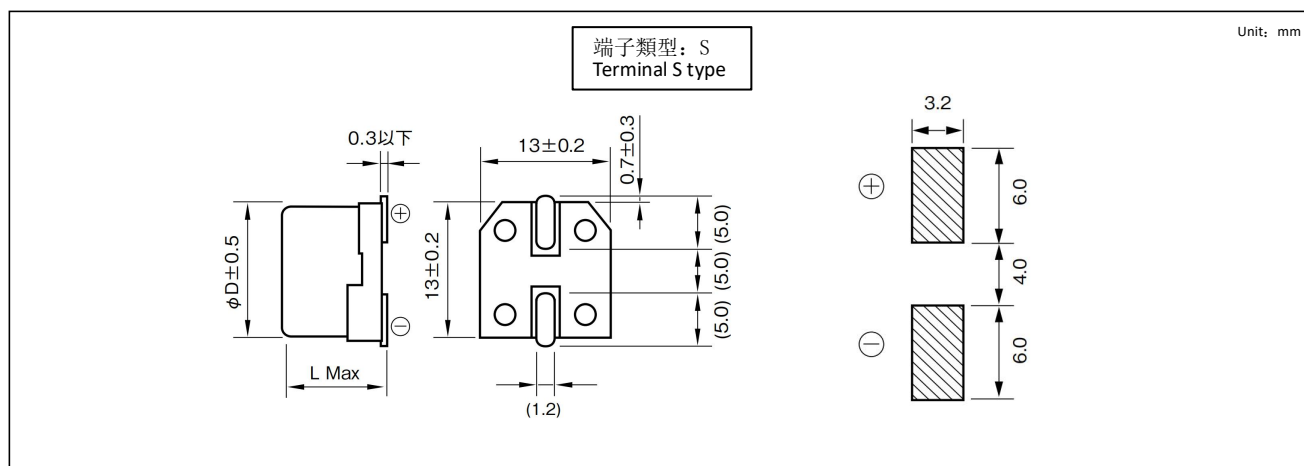
- 可在-25℃至 85℃ 的寬溫範圍內使用
- 長壽命: +85℃ 1,000 小時
- 支持回流峰值溫度 260° C
- 符合 RoHS 指令/無爆炸危險
- Able to be used at wide temperature from -25℃ to 85℃
- Long life Endurance : 1,000 hours at +85℃
- Support reflow peak temperature 260°C
- RoHS directive compliant / No Explosion Hazard



規格表 Specification Table

Operating temperature 工作溫度	-25℃ to +85℃
Capacitance range 容量範圍	0.047F to 0.22F
Capacitance tolerance 容量誤差	- 20% to + 80% (at 25℃)
Rated voltage 額定電壓	5.5 VDC
Temperature characteristics 溫度特性	Capacitance change: Within $\pm 30\%$ of initial measured value at +25℃ Internal resistance: Within $\pm 500\%$ of initial measured value at +25℃ 容量變化: 在+25℃時初始測量值的 $\pm 30\%$ 範圍內 內阻: 在+25℃時初始測量值的 $\pm 500\%$ 範圍內
Endurance (At rated voltage&max. Operating temp) 耐久性能變化 (在額定電壓和最大值下。正在操作溫度)	After 1000 hours: Capacitance change: $\pm 30\%$ of initial rated value Internal resistance: Within 4 times of initial specified value 1000 小時後: 容量變化: 為初始額定值的 $\pm 30\%$ 內阻: 在初始規定值的 4 倍內
Shelf life 儲存壽命	After 2 years at 25℃ without load, the capacitor shall meet the specified endurance limits. 在 25℃ 無負載條件下工作 2 年後, 電容器應達到規定的耐久性極限。

尺寸圖 Dimensions



型號列表 Model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 容量 (F)	Internal Resistance 內阻 (Ω) at 1 kHz	S type(mm)	
				ΦD	L
CST 5R5 473 SF	5.5	0.047	≤45	13.5	10.5
CST 5R5 104 SF	5.5	0.1	≤45	13.5	10.5
CST 5R5 224 SF	5.5	0.22	≤45	13.5	10.5

CSV series

待產
Expectant

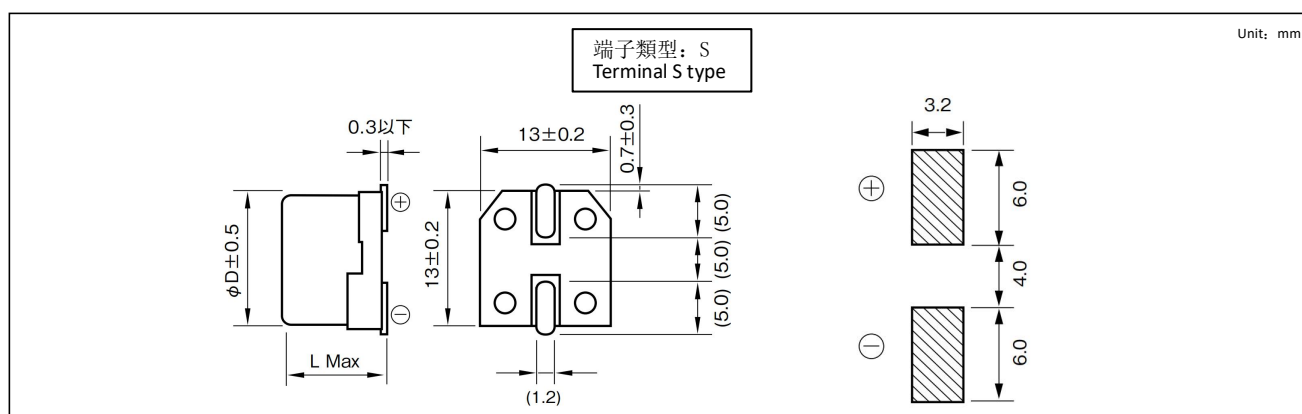
- 可在-25℃至 85℃ 的寬溫範圍內使用
- 長壽命: +85℃ 2,000 小時
- 支持回流峰值溫度 260° C
- 符合 RoHS 指令/無爆炸危險
- Able to be used at wide temperature from -25℃ to 85℃
- Long life Endurance : 2,000 hours at +85℃
- Support reflow peak temperature 260°C
- RoHS directive compliant / No Explosion Hazard



規格表 Specification Table

Operating temperature 工作溫度	-25℃ to +70℃
Capacitance range 容量範圍	0.047F to 0.47F
Capacitance tolerance 容量誤差	- 20% to + 80% (at 25℃)
Rated voltage 額定電壓	3.6 VDC
Temperature characteristics 溫度特性	Capacitance change: Within $\pm 30\%$ of initial measured value at +25℃ Internal resistance: Within $\pm 500\%$ of initial measured value at +25℃ 容量變化: 在+25℃時初始測量值的 $\pm 30\%$ 範圍內 內阻: 在+25℃時初始測量值的 $\pm 500\%$ 範圍內
Endurance (At rated voltage&max. Operating temp) 耐久性能變化 (在額定電壓和最大值下。正在操作溫度)	After 2000 hours: Capacitance change: $\pm 30\%$ of initial rated value Internal resistance: Within 4 times of initial specified value 2000 小時後: 容量變化: 為初始額定值的 $\pm 30\%$ 內阻: 在初始規定值的 4 倍內
Shelf life 儲存壽命	After 2 years at 25℃ without load, the capacitor shall meet the specified endurance limits. 在 25℃ 無負載條件下工作 2 年後, 電容器應達到規定的耐久性極限。

尺寸圖 Dimensions



型號列表 Model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 容量 (F)	Internal Resistance 內阻 (Ω) at 1 kHz	S type(mm)	
				ΦD	L
CSV 3R6 473 SF	3.6	0.047	≤30	13.5	8.5
CSV 3R6 104 SF	3.6	0.1	≤30	13.5	8.5
CSV 3R6 224 SF	3.6	0.22	≤30	13.5	8.5
CSV 3R6 334 SF	3.6	0.33	≤30	13.5	8.5
CSV 3R6 474 SF	3.6	0.47	≤30	13.5	8.5

CXHP series

標準品
Standard

- 標準品/溫度範圍-40°C至70°C
- 可實現小型化規格Φ4/5/6mm
- 符合 RoHS 指令/無爆炸危險
- Standard/Temperature range -40°C to 70°C
- Small size can be achieved Φ4/5/6mm
- Compliant with RoHS Directive / No explosion hazard

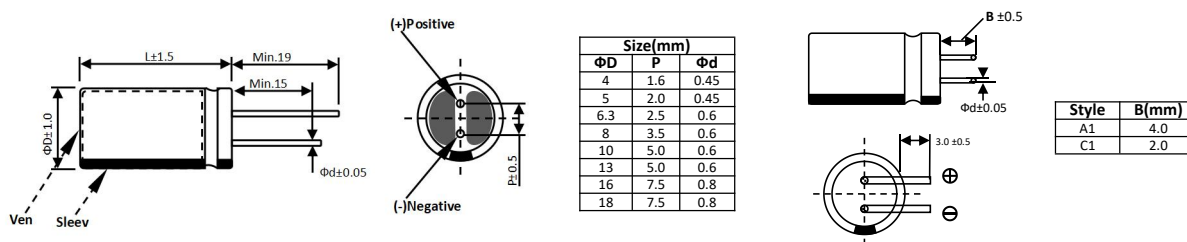


規格表 Specification Table

Operating temperature 工作溫度	-40°C to +70°C
Capacitance range 容量範圍	0.2F to 120F
Capacitance tolerance 容量誤差	-0%~+100%; -20%~+20%; -20%~+50%
Rated voltage 額定電壓	2.7 V
Surge voltage 沖擊電壓	2.85 V
Temperature characteristics 溫度特性	Capacitance change: Within $\pm 30\%$ of initial measured value at +25°C Internal resistance: Within $\pm 200\%$ of initial measured value at +25°C 電容變化: +25°C 時初始測量值的 $\pm 30\%$ 以內 內部電阻: +25°C 時初始測量值的 $\pm 200\%$ 以內
High temperature load time 高溫負荷特性	After 70°C 1000 hours (at 2.7V): Capacitance change: $\pm 30\%$ of initial rated value Internal resistance: Within 3 times of initial specified value 70°C 1000 小時後 (at 2.7V): 電容變化: 初始額定值的 $\pm 30\%$; 內阻: 初始規定值的 3 倍以內
Projected cycle life (From rated voltage to 1/2 rated voltage at 25°C) 預計循環壽命 (從額定電壓到額定電壓的 1/2 25°C 時的電壓)	After 500,000 cycles: Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 500,000 次循環後: 電容變化: 初始額定值的 $\pm 30\%$; 內阻: 初始規定值的 2 倍以內
Humidity characteristic 濕度特性	Relative humidity: 90%~95% / Duration of testing: 240 hrs / Temperature: $40 \pm 2^\circ\text{C}$ Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 相對濕度: 90%~95% / 測試時間: 240 小時 / 溫度: $40 \pm 2^\circ\text{C}$ 電容變化: 初始額定值的 $\pm 30\%$ 以內; 內阻: 初始規定值的 2 倍以內
Vibration resistance 抗振性	Amplitude: 1.5mm / Frequency: 10~55Hz / Duration of testing: 6 hrs Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 幅度: 1.5mm / 頻率: 10~55Hz / 測試時間: 6 小時 電容變化: 初始額定值的 $\pm 30\%$ 以內; 內阻: 初始規定值的 2 倍以內
Shelf life 儲存壽命	After 2 years at 25°C without load, the capacitor shall meet the specified endurance limits. 在 25°C 無負載條件下工作 2 年後, 電容器應達到規定的耐久性極限。

尺寸圖 Dimensions

Unit: mm



型號列表 model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 額定容量 (F)	Dimensions 尺寸 (mm)	Max.ESR 內阻		Maximum Leakage 最大漏電 (72hrs/mA)	Maximum Peak Current 峰值電流 (A)
			D x L	ESRAC (1kHz/mΩ)	ESRDC (mΩ)		
Radial Lead(Miniaturized)							
CXHP2R7224R-TW	2.7	0.22	4x10	1000	1820	0.001	0.17
CXHP2R7224R-TWX	2.7	0.22	5x10	700	1200	0.002	0.19
CXHP2R7304R-TW	2.7	0.3	4x10	700	1200	0.002	0.19
CXHP2R7354R-TW	2.7	0.35	5x10	600	1000	0.002	0.40
CXHP2R7504R-TWX	2.7	0.5	5x12	600	1000	0.003	0.45
CXHP2R7504R- TW	2.7	0.5	6.3x12	240	1600	0.006	0.52
CXHP2R7604R-TW	2.7	0.6	4x22	700	1200	0.003	0.45
CXHP2R7105R-TWV	2.7	1	4x25	550	900	0.003	0.54
CXHP2R7105R-TWX	2.7	1	6.3x12	300	1500	0.006	0.54
CXHP2R7125R-TW	2.7	1.2	5x22	200	400	0.006	1.16
CXHP2R7405R-TWV	2.7	4	6.3x25	90	130	0.010	2.44
Radial Lead							
CXHP2R7254R- TW	2.7	0.25	4x10	700	2000	0.002	0.23
CXHP2R7354R- TW	2.7	0.4	5x10	550	1800	0.005	0.31
CXHP2R7504R- TW	2.7	0.5	6.3x12	240	1600	0.006	0.52
CXHP2R7804R- TW	2.7	0.8	4x22	500	1600	0.007	0.47
CXHP2R7105R- TWQ	2.7	1	4x25	450	1500	0.008	0.54
CXHP2R7105R-TWX	2.7	1	6.3x12	300	1500	0.006	0.54
CXHP2R7105R- TW	2.7	1	8x12	160	240	0.006	1.09
CXHP2R7155R- TW	2.7	1.5	5x22	200	500	0.006	1.16
CXHP2R7205R- TW	2.7	2	8x12	100	280	0.010	1.73
CXHP2R7205R- TWQ	2.7	2	8x20	100	120	0.012	2.15
CXHP2R7255R- TW	2.7	2.5	8x16	130	180	0.025	2.27
CXHP2R7305R- TWX	2.7	3	8x16	130	195	0.012	2.56
CXHP2R7305R- TW	2.7	3	8x20	100	120	0.012	2.79
CXHP2R7335R- TW	2.7	3.3	8x20	100	150	0.012	2.98
CXHP2R7335R- TWX	2.7	3.3	6.3x22	90	250	0.01	2.44
CXHP2R7405R- TW	2.7	4	10x20	70	170	0.015	3.65
CXHP2R7475R- TW	2.7	4.7	10x20	72	170	0.017	3.60
CXHP2R7505R-TWX	2.7	5	8x25	90	135	0.015	4.03
CXHP2R7505R-TWV	2.7	5	8x20	100	150	0.015	3.38
CXHP2R7505R- TW	2.7	5	10x20	75	113	0.015	4.32
CXHP2R7505R- TWQ	2.7	5	10x16	90	135	0.020	4.03
CXHP2R7705R- TW	2.7	7	10x20	75	113	0.020	5.29
CXHP2R7705R- TWX	2.7	7	8x25	90	135	0.015	4.86
CXHP2R7805R- TW	2.7	8	10x25	60	150	0.020	4.61
CXHP2R7106R- TW	2.7	10	10x25	65	98	0.030	6.84
CXHP2R7106R- TWQ	2.7	10	10x30	50	75	0.030	7.71
CXHP2R7106R-TWX	2.7	10	12.5x20	45	68	0.030	8.06
CXHP2R7126R- TW	2.7	12	12.5x20	50	75	0.036	8.53
CXHP2R7156R- TW	2.7	15	12.5x25	40	60	0.050	10.66
CXHP2R7186R- TW	2.7	18	12.5x25	40	60	0.055	12.27
CHXP2R7206R- TW	2.7	20	12.5x25	30	60	0.060	13.50
CHXP2R7206R- TWQ	2.7	20	12.5x30	35	53	0.055	13.17
CXHP2R7256R- TW	2.7	25	16x25	27	50	0.060	15.00
CXHP2R7306R- TW	2.7	30	16x30	20	40	0.070	18.41
CXHP2R7356R-TWX	2.7	35	16x30	22	33	0.080	21.93
CXHP2R7356R-TW	2.7	35	16x35	19	42	0.086	23.86
CXHP2R7406R-TW	2.7	40	12.5x46	20	45	0.080	23.68
CXHP2R7506R- TW	2.7	50	18x40	16	24	0.105	30.68
CXHP2R7506R- TWQ	2.7	50	12.5x50	18	35	0.105	28.72
CXHP2R7506R- TWX	2.7	50	18x35	18	27	0.110	30.92
CXHP2R7606R- TW	2.7	60	18x40	15	23	0.150	34.47
CXHP2R7706R-TW	2.7	70	18x40	18	20	0.080	36.80
CXHP2R7826R-TW	2.7	82	18x40	15	22	0.080	39.00
CXHP2R7107R-TWV	2.7	100	18x60	13	20	0.240	45.76
CXHP2R7127R- TWV	2.7	120	18x60	13	20	0.280	48.50

*通過適當的電壓降額工作溫度可擴展至 85°C

*with appropriate voltage derating operating temperature can be extended to 85°C

本公司在更改設計，規格時可能不予事先通知，敬請諒解。請務必在購買及使用本公司產品前向本公司索取相關技術規格書。如對產品的安全性有疑義時，請速與本公司聯繫。
Please understand that our company may change the design and specifications without prior notice. Please be sure to ask our company for relevant technical specifications before purchasing and using our products. If you have any doubts about the safety of the product, please contact our company immediately.

CHV series

高可靠品
High reliability

- 高可靠性/長壽命
- 65°C 2.7V/2000 小時保證（常溫 10 年使用）
- 符合 RoHS/REACH 指令/無爆炸危險
- High reliability/long life
- 65°C 2.7V/2000 hours guarantee (10 years use @25°C)
- RoHS directive compliant / No Explosion Hazard

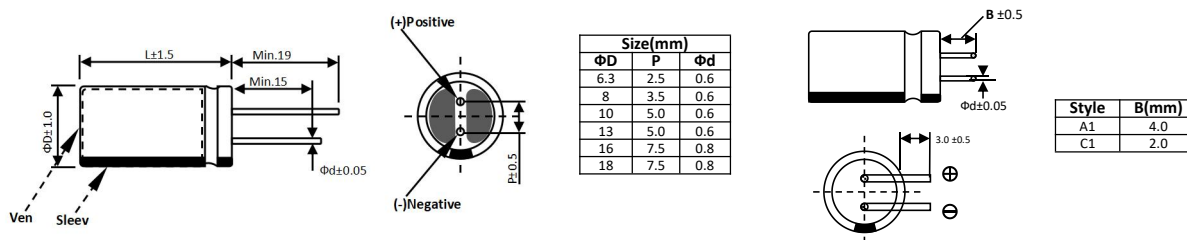


規格表 Specification Table

Operating temperature 工作溫度	-40°C to +65°C
Capacitance range 容量範圍	1.0F to 600F
Capacitance tolerance 容量誤差	-0%~+100%; -10%~+30%
Rated voltage 額定電壓	2.7 V
Surge voltage 沖擊電壓	2.85 V
Temperature characteristics 溫度特性	Capacitance change: Within $\pm 30\%$ of initial measured value at +25°C Internal resistance: Within $\pm 500\%$ of initial measured value at +25°C 電容變化: +25°C 時初始測量值的 $\pm 30\%$ 以內 內部電阻: +25°C 時初始測量值的 $\pm 500\%$ 以內
High temperature load time 高溫負荷特性	After 65°C 2000 hours (at 2.7V): Capacitance change: $\pm 30\%$ of initial rated value Internal resistance: Within 3 times of initial specified value 65°C 2000 小時後 (at 2.7V): 電容變化: 初始額定值的 $\pm 30\%$; 內阻: 初始規定值的 3 倍以內
Projected cycle life (From rated voltage to 1/2 rated voltage at 25°C) 預計循環壽命 (從額定電壓到額定電壓的 1/2 25°C 時的電壓)	After 500,000 cycles: Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 500,000 次循環後: 電容變化: 初始額定值的 $\pm 30\%$; 內阻: 初始規定值的 2 倍以內
Humidity characteristic 濕度特性	Relative humidity: 90%~95% / Duration of testing: 240 hrs / Temperature: $40 \pm 2^\circ\text{C}$ Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 相對濕度: 90%~95% / 測試時間: 240 小時 / 溫度: $40 \pm 2^\circ\text{C}$ 電容變化: 初始額定值的 $\pm 30\%$ 以內; 內阻: 初始規定值的 2 倍以內
Vibration resistance 抗振性	Amplitude: 1.5mm / Frequency: 10~55Hz / Duration of testing: 6 hrs Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 幅度: 1.5mm / 頻率: 10~55Hz / 測試時間: 6 小時 電容變化: 初始額定值的 $\pm 30\%$ 以內; 內阻: 初始規定值的 2 倍以內
Shelf life 儲存壽命	After 2 years at 25°C without load, the capacitor shall meet the specified endurance limits. 在 25°C 無負載條件下工作 2 年後, 電容器應達到規定的耐久性極限。

尺寸圖 Dimensions

Unit: mm



型號列表 model list

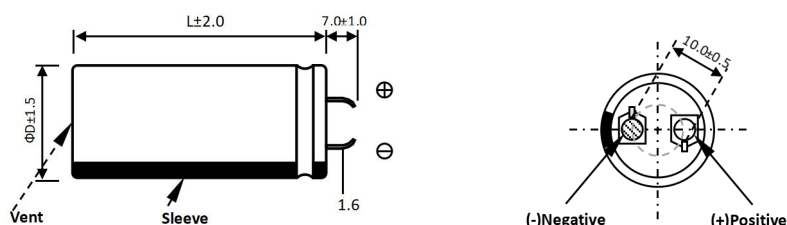
Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 額定容量 (F)	Dimensions 尺寸 (mm)	Max.ESR 內阻		Maximum Leakage 最大漏電 (72hrs/mA)	Maximum Peak Current 峰值電流 (A)
			D x L	ESRAC (1kHz/mΩ)	ESRDC (mΩ)		
CHV-2R7105R-TWX	2.7	1	6.3*12	200	500	0.006	0.90
CHV-2R7105R-TW	2.7	1	8*12	150	360	0.006	0.99
CHV-2R7125R-TW	2.7	1.2	6.3*15	240	620	0.006	0.93
CHV-2R7155R-TW	2.7	1.5	8*12	120	180	0.010	1.99
CHV-2R7205R-TW	2.7	2	8*16	100	360	0.010	1.57
CHV-2R7335R-TW	2.7	3.3	8*20	95	260	0.012	2.40
CHV-2R7405R-TWX	2.7	4	8*20	100	150	0.015	3.38
CHV-2R7405R-TW	2.7	4	10*20	70	170	0.015	3.65
CHV-2R7475R-TW	2.7	4.7	10*20	75	113	0.015	4.32
CHV-2R7505R-TWX	2.7	5	8*25	85	220	0.015	3.21
CHV-2R7505R-TW	2.7	5	10*20	70	170	0.015	3.65
CHV-2R7705R-TW	2.7	7	10*20	70	170	0.018	4.32
CHV-2R7705R-TWQ	2.7	7	10*25	60	150	0.020	4.61
CHV-2R7805R-TW	2.7	8	12.5*20	60	150	0.020	4.61
CHV-2R7106R-TW	2.7	10	10*25	50	75	0.030	7.71
CHV-2R7106R-TWQ	2.7	10	10*30	50	75	0.030	7.71
CHV-2R7126R-TW	2.7	12	10*30	50	75	0.030	8.53
CHV-2R7106R-TWX	2.7	10	12.5*20	50	75	0.030	7.71
CHV-2R7126R-TW	2.7	12	12.5*25	50	75	0.035	8.53
CHV-2R7156R-TW	2.7	15	12.5*26	50	75	0.030	7.71
CHV-2R7156R-TWQ	2.7	15	12.5*30	35	80	0.050	11.33
CHV-2R7166R-TW	2.7	16	16*16	40	60	0.050	10.66
CHV-2R7186R-TW	2.7	18	12.5*30	40	60	0.055	11.68
CHV-2R7206R-TW	2.7	20	12.5*30	35	53	0.055	13.17
CHV-2R7226R-TW	2.7	22	12.5*30	34	65	0.060	13.05
CHV-2R7226R-TWX	2.7	22	16*20	30	55	0.075	14.21
CHV-2R7256R-TW	2.7	25	16*25	27	50	0.060	15.00
CHV-2R7306R-TW	2.7	30	16*30	20	40	0.070	18.41
CHV-2R7506R-TW	2.7	50	18*40	18	20	0.075	33.75
CHV-2R7606R-TW	2.7	60	18*40	15	23	0.150	36.80
CHV-2R7107R-TWV	2.7	100	18*60	15	18	0.260	48.21

*通過適當的電壓降額工作溫度可擴展至 85°C

*with appropriate voltage derating operating temperature can be extended to 85°C

Φ22~30 尺寸圖 Dimensions

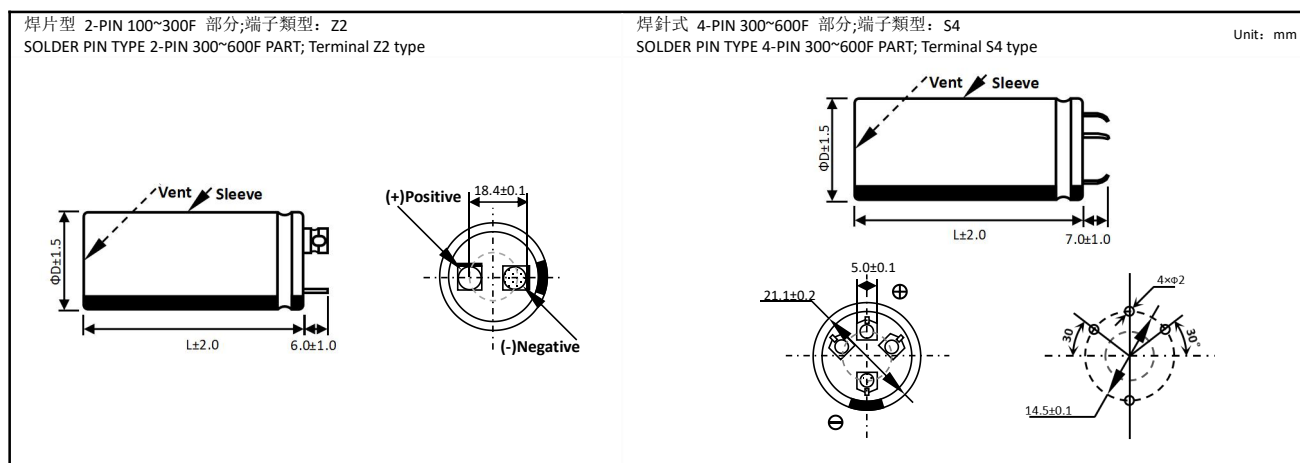
焊針型 2-PIN 100~300F 部分;端子類型: S1
SOLDER PIN TYPE 2-PIN 100~300F PART; Terminal S1 type



型號列表 model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 額定容量 (F)	Dimensions 尺寸 (mm)	Max.ESR 內阻		Maximum Leakage 最大漏電 (72hrs/mA)	Maximum Peak Current 峰值電流 (A)
			D x L	ESRAC (1kHz/mΩ)	ESRDC (mΩ)		
CHV-2R7107R-TW	2.7	100	22*45	8	12	0.240	63.68
CHV-2R7127R-TW	2.7	120	22*50	7.5	10.5	0.300	71.68
CHV-2R7127R-TWX	2.7	120	25*45	8	11.6	0.250	67.73
CHV-2R7157R-TW	2.7	150	25*50	7	9.8	0.400	81.98
CHV-2R7187R-TW	2.7	180	25*50	7	10.2	0.415	84.20
CHV-2R7207R-TW	2.7	200	30*50	6	8	0.600	103.85
CHV-2R7227R-TW	2.7	220	30*50	6	8.4	0.520	107.61
CHV-2R7257R-TW	2.7	250	30*55	5.5	7.7	0.580	115.38
CHV-2R7307R-TWX	2.7	300	30*50	5.5	8	0.600	119.38
CHV-2R7307R-TW	2.7	300	30*55	6	9	0.600	112.19

Φ35 尺寸圖 Dimensions



型號列表 model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 額定容量 (F)	Dimensions 尺寸 (mm)	Max.ESR 內阻		Maximum Leakage 最大漏電 (72hrs/mA)	Maximum Peak Current 峰值電流 (A)
			D x L	ESRAC (1kHz/mΩ)	ESRDC (mΩ)		
CHV-2R7307R-TW	2.7	300	35*50	5.5	8.0	0.600	119.38
CHV-2R7337R-TW	2.7	330	35*50	5.0	7.0	0.800	138.0
CHV-2R7357R-TW	2.7	350	35*60	3	3.5	1.00	212.30
CHV-2R7367R-TW	2.7	360	35*60	4	5	0.950	173.57
CHV-2R7407R-TW	2.7	400	35*60	3.8	4.5	1.00	177.63
CHV-2R7407R-TWX	2.7	400	35*55	4.5	6.3	1.00	153.41
CHV-2R7457R-TW	2.7	450	35*60	4.0	5.6	1.20	174.70
CHV-2R7507R-TWX	2.7	500	35*60	3	3.3	1.00	244.47
CHV-2R7507R-TW	2.7	500	35*67	2.9	3.4	1.3	250.00
CHV-2R7607R-TW	2.7	600	35*70	3.2	4.5	1.60	219.63

CHQ series

低內阻
Low ESR

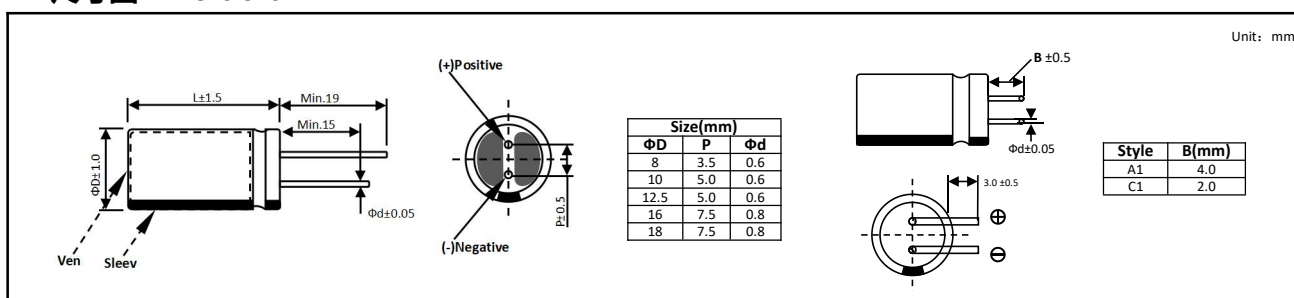
- 可低內阻產品（最小內阻 $\leq 0.5\text{m}\Omega$ ）
- 65°C 2.7V/1000 小時保證
- 由于內阻小，可以快速充電和大電流放電
- 符合 RoHS/REACH 指令/無爆炸危險
- Low internal resistance products (Min ESR $\leq 0.5\text{m}\Omega$)
- 65°C 2.7V/1000 hours guarantee
- Small internal resistance, fast charging and fast discharging
- Compliant with RoHS/RECH directive/no explosion hazard



規格表 Specification Table

Operating temperature 工作溫度	-40°C to $+65^\circ\text{C}$
Capacitance range 容量範圍	1.0F to 600F
Capacitance tolerance 容量誤差	$-0\% \sim +100\%$; $-10\% \sim +30\%$
Rated voltage 額定電壓	2.7 V
Surge voltage 沖擊電壓	2.85 V
Temperature characteristics 溫度特性	Capacitance change: Within $\pm 30\%$ of initial measured value at $+25^\circ\text{C}$ Internal resistance: Within $\pm 500\%$ of initial measured value at $+25^\circ\text{C}$ 電容變化: $+25^\circ\text{C}$ 時初始測量值的 $\pm 30\%$ 以內 內部電阻: $+25^\circ\text{C}$ 時初始測量值的 $\pm 500\%$ 以內
High temperature load time 高溫負荷特性	After 65°C 1000 hours (at 2.7V): Capacitance change: $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 65°C 1000 小時後 (at 2.7V): 電容變化: 初始額定值的 $\pm 30\%$; 內阻: 初始規定值的 2 倍以內
Projected cycle life (From rated voltage to 1/2 rated voltage at 25°C) 預計循環壽命 (從額定電壓到額定電壓的 1/2 25°C 時的電壓)	After 500,000 cycles: Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 500,000 次循環後: 電容變化: 初始額定值的 $\pm 30\%$; 內阻: 初始規定值的 2 倍以內
Humidity characteristic 濕度特性	Relative humidity: $90\% \sim 95\%$ / Duration of testing: 240 hrs / Temperature: $40 \pm 2^\circ\text{C}$ Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 相對濕度: $90\% \sim 95\%$ / 測試時間: 240 小時 / 溫度: $40 \pm 2^\circ\text{C}$ 電容變化: 初始額定值的 $\pm 30\%$ 以內; 內阻: 初始規定值的 2 倍以內
Vibration resistance 抗振性	Amplitude: 1.5mm / Frequency: 10~55Hz / Duration of testing: 6 hrs Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 幅度: 1.5mm / 頻率: 10~55Hz / 測試時間: 6 小時 電容變化: 初始額定值的 $\pm 30\%$ 以內; 內阻: 初始規定值的 2 倍以內
Shelf life 儲存壽命	After 2 years at 25°C without load, the capacitor shall meet the specified endurance limits. 在 25°C 無負載條件下工作 2 年後, 電容器應達到規定的耐久性極限。

尺寸圖 Dimensions



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Please understand that our company may change the design and specifications without prior notice. Please be sure to ask our company for relevant technical specifications before purchasing and using our products. If you have any doubts about the safety of the product, please contact our company immediately.

型號列表 model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 額定容量 (F)	Dimensions 尺寸 (mm)	Max.ESR 內阻		Maximum Leakage 最大漏電 (72hrs/mA)	Maximum Peak Current 峰值電流 (A)
			D x L	ESRAC (1kHz/mΩ)	ESRDC (mΩ)		
CHQ-2R7105R-TW	2.7	1	8*12	110	165	0.008	1.16
CHQ-2R7205R-TW	2.7	2	8*16	90	135	0.013	2.13
CHQ-2R7335R-TW	2.7	3.3	8*20	65	98	0.015	0.92
CHQ-2R7505R-TWX	2.7	5	8*25	55	83	0.020	4.78
CHQ-2R7505R-TW	2.7	5	10*20	50	75	0.025	4.91
CHQ-2R7705R-TW	2.7	7	10*25	30	45	0.030	7.19
CHQ-2R7106R-TWQ	2.7	10	10*30	25	38	0.035	9.82
CHQ-2R7106R-TWX	2.7	10	12.5*20	25	38	0.035	9.82
CHQ-2R7256R-TW	2.7	25	16*25	15	25	0.060	20.77
CHQ-2R7506R-TW	2.7	50	18*40	9	15	0.075	38.57

Φ22~30 尺寸圖 Dimensions

焊片型 2-PIN 100~220F 部分;端子類型: Z2 SOLDER PIN TYPE 2-PIN 100~220F PART; Terminal Z2 type		Unit: mm

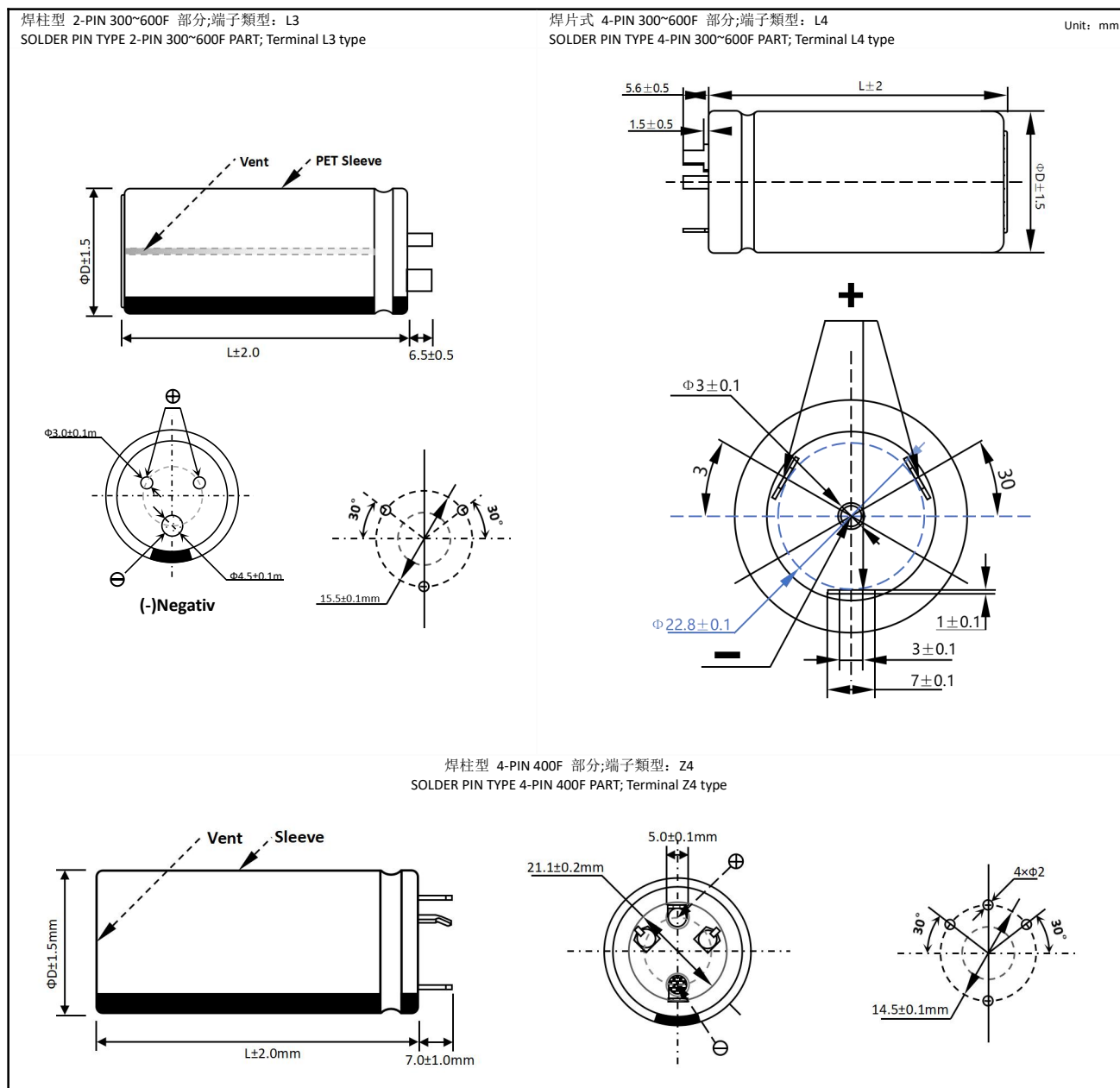
型號列表 model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 額定容量 (F)	Dimensions 尺寸 (mm)	Max.ESR 內阻		Maximum Leakage 最大漏電 (72hrs/mA)	Maximum Peak Current 峰值電流 (A)
			D x L	ESRAC (1kHz/mΩ)	ESRDC (mΩ)		
CHQ-2R7107R-TW	2.7	100	22*45	6.00	10.00	0.26	67.50
CHQ-2R7127R-TW	2.7	120	22*50	5.50	9.00	0.30	77.88
CHQ-2R7227R-TW	2.7	220	30*50	4.20	4.00	0.62	157.98
CHQ-2R7227R-TW	2.7	220	30*50	5.00	6.00	0.62	128.02
CHQ-2R7357R-TW	2.7	350	35*60	2.50	3.00	1.00	230.40
CHQ-2R7407R-TW	2.7	400	35*60	2.30	2.70	1.00	259.60
CHQ-2R7507R-TW	2.7	500	35*65	2.40	2.90	1.30	275.50
CHQ-2R7607R-TW	2.7	600	35*70	2.50	3.00	1.50	289.20

*通過適當的電壓降額工作溫度可擴展至 85°C

*with appropriate voltage derating operating temperature can be extended to 85°C

□ Φ35 尺寸圖 Dimensions



□ 型號列表 model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 額定容量 (F)	Dimensions 尺寸 (mm)	Max.ESR 內阻		Maximum Leakage 最大漏電 (72hrs/mA)	Maximum Peak Current 峰值電流 (A)
			D x L	ESRAC (1kHz/mΩ)	ESRDC (mΩ)		
CHQ-2R7307R-TW	2.7	300	35*60	1.60	2.20	1.00	258.10
CHQ-2R7367R-TW	2.7	360	35*60	1.30	1.80	1.20	289.80
CHQ-2R7407R-TW	2.7	400	35*70	1.20	1.50	1.30	337.50
CHQ-2R7507R-TW	2.7	500	35*85	1.10	1.35	1.50	402.99
CHQ-2R7607R-TW	2.7	600	35*85	1.00	1.33	1.50	450.50
CHQ-2R7407R-TWQ	2.7	400	35*66	2.50	2.90	1.00	270.0

*通過適當的電壓降額工作溫度可擴展至 85°C

*with appropriate voltage derating operating temperature can be extended to 85°C

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CHW series

耐高溫品
HighTemperature

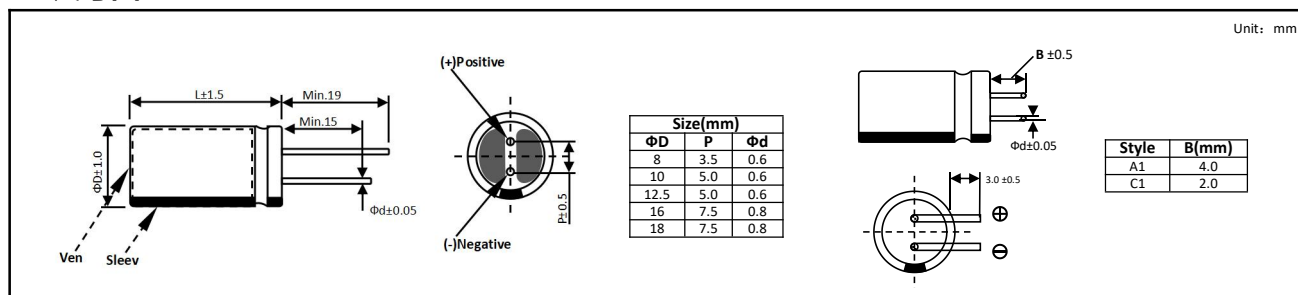
- 耐高溫品/高可靠性
- 85°C 2.7V/1000 小時保證
- 符合 RoHS/REACH 指令/無爆炸危險
- High temperature product/high reliability
- 85°C 2.7V/1000 hours guarantee
- Compliant with RoHS/RECH directive/no explosion hazard



規格表 Specification Table

Operating temperature 工作溫度	-40°C to +85°C
Capacitance range 容量範圍	1.0F to 100F
Capacitance tolerance 容量誤差	-20%~+50% ; -20%~+20%; -10%~+30%
Rated voltage 額定電壓	2.7 V
Surge voltage 沖擊電壓	2.85 V
Temperature characteristics 溫度特性	Capacitance change: Within $\pm 30\%$ of initial measured value at +25°C Internal resistance: Within $\pm 500\%$ of initial measured value at +25°C 電容變化: +25°C 時初始測量值的 $\pm 30\%$ 以內 內部電阻: +25°C 時初始測量值的 $\pm 500\%$ 以內
High temperature load time 高溫負荷特性	After 85°C 1000 hours (at 2.7V): Capacitance change: $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 65°C 1000 小時後 (at 2.7V): 電容變化: 初始額定值的 $\pm 30\%$; 內阻: 初始規定值的 2 倍以內
Projected cycle life (From rated voltage to 1/2 rated voltage at 25°C) 預計循環壽命 (從額定電壓到額定電壓的 1/2 25°C 時的電壓)	After 500,000 cycles: Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 500,000 次循環後: 電容變化: 初始額定值的 $\pm 30\%$; 內阻: 初始規定值的 2 倍以內
Humidity characteristic 濕度特性	Relative humidity: 90%~95% /Duration of testing: 240 hrs /Temperature: $40 \pm 2^\circ\text{C}$ Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 相對濕度: 90%~95% /測試時間: 240 小時 /溫度: $40 \pm 2^\circ\text{C}$ 電容變化: 初始額定值的 $\pm 30\%$ 以內; 內阻: 初始規定值的 2 倍以內
Vibration resistance 抗振性	Amplitude: 1.5mm /Frequency: 10~55Hz /Duration of testing: 6 hrs Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 幅度: 1.5mm /頻率: 10~55Hz /測試時間: 6 小時 電容變化: 初始額定值的 $\pm 30\%$ 以內; 內阻: 初始規定值的 2 倍以內
Shelf life 儲存壽命	After 2 years at 25°C without load, the capacitor shall meet the specified endurance limits. 在 25°C 無負載條件下工作 2 年後, 電容器應達到規定的耐久性極限。

尺寸圖 Dimensions



 型號列表 model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 額定容量 (F)	Dimensions 尺寸 (mm)	Max.ESR 內阻		Maximum Leakage 最大漏電 (72hrs/mA)	Maximum Peak Current 峰值電流 (A)
			D x L	ESRAC (1kHz/mΩ)	ESRDC (mΩ)		
Radial Lead(Miniaturized)							
CHW-2R7224R-TW	2.7	0.22	4x10	1000	1820	0.001	0.17
CHW-2R7224R-TWX	2.7	0.22	5x10	700	1200	0.002	0.19
CHW-2R7304R-TW	2.7	0.3	4x10	700	1200	0.002	0.19
CHW-2R7354R-TW	2.7	0.35	5x10	600	1000	0.002	0.40
CHW-2R7504R-TWX	2.7	0.5	5x12	600	1000	0.003	0.45
CHW-2R7504R- TW	2.7	0.5	6.3x12	240	1600	0.006	0.52
CHW-2R7604R-TW	2.7	0.6	4x22	700	1200	0.003	0.45
CHW-2R7105R-TWV	2.7	1	4x25	550	900	0.003	0.54
CHW-2R7105R-TWX	2.7	1	6.3x12	300	1500	0.006	0.54
CHW-2R7125R-TW	2.7	1.2	5x22	200	400	0.006	1.16
CHW-2R7405R-TWV	2.7	4	6.3x25	90	130	0.010	2.44
Radial Lead							
CHW-2R7105R-TW	2.7	1.0	8*12	160	240	0.007	1.09
CHW-2R7205R-TW	2.7	2.0	8*16	120	180	0.010	1.99
CHW-2R7335R-TW	2.7	3.3	8*20	100	150	0.012	2.98
CHW-2R7505R-TWX	2.7	5.0	8*25	90	135	0.016	4.03
CHW-2R7505R-TW	2.7	5.0	10*20	75	113	0.016	4.32
CHW-2R7705R-TW	2.7	7.0	10*25	60	90	0.022	5.80
CHW-2R7106R-TW	2.7	10	10*25	55	83	0.030	7.40
CHW-2R7106R-TWQ	2.7	10	10*30	45	68	0.032	8.06
CHW-2R7106R-TWX	2.7	10	12.5*20	45	68	0.032	8.06
CHW-2R7126R-TW	2.7	12	12.5*25	40	60	0.040	9.42
CHW-2R7156R-TW	2.7	15	12.5*30	35	53	0.055	11.33
CHW-2R7206R-TW	2.7	20	12.5*30	35	53	0.055	13.17
CHW-2R7256R-TW	2.7	25	16*25	25	38	0.078	17.42
CHW-2R7306R-TW	2.7	30	16*30	20	30	0.085	21.32
CHW-2R7506R-TW	2.7	50	18*40	16	24	0.120	30.68
CHW-2R7107R-TWV	2.7	100	18*60	13	20	0.250	45.76

CXP series

高耐壓品
High pressure prod

- 高耐壓品/3.0V 工作電壓
- 65°C/3.0V 1000 小時保證
- 符合 RoHS 指令/無爆炸危險
- High withstand voltage product/3.0V working voltage
- 65°C/3.0V 1000 hours guarantee
- Compliant with RoHS Directive / No explosion hazard

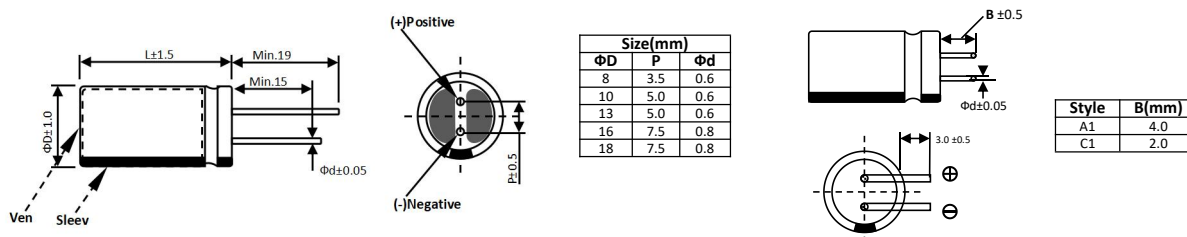


規格表 Specification Table

Operating temperature 工作溫度	-40°C to +65°C
Capacitance range 容量範圍	1.0F to 480F
Capacitance tolerance 容量誤差	-20%~+50% ; -20%~+20%; -10%~+30%
Rated voltage 額定電壓	3.0 V
Surge voltage 沖擊電壓	3.15 V
Temperature characteristics 溫度特性	Capacitance change: Within $\pm 30\%$ of initial measured value at +25°C Internal resistance: Within $\pm 200\%$ of initial measured value at +25°C 電容變化: +25°C 時初始測量值的 $\pm 30\%$ 以內 內部電阻: +25°C 時初始測量值的 $\pm 200\%$ 以內
High temperature load time 高溫負荷特性	After 65°C 1000 hours (at 3.0V): Capacitance change: $\pm 30\%$ of initial rated value Internal resistance: Within 3 times of initial specified value 65°C 1000 小時後 (at 3.0V): 電容變化: 初始額定值的 $\pm 30\%$; 內阻: 初始規定值的 3 倍以內
Projected cycle life (From rated voltage to 1/2 rated voltage at 25°C) 預計循環壽命 (從額定電壓到額定電壓的 1/2 25°C 時的電壓)	After 500,000 cycles: Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 500,000 次循環後: 電容變化: 初始額定值的 $\pm 30\%$; 內阻: 初始規定值的 2 倍以內
Humidity characteristic 濕度特性	Relative humidity: 90%~95% / Duration of testing: 240 hrs / Temperature: $40 \pm 2^\circ\text{C}$ Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 相對濕度: 90%~95% / 測試時間: 240 小時 / 溫度: $40 \pm 2^\circ\text{C}$ 電容變化: 初始額定值的 $\pm 30\%$ 以內; 內阻: 初始規定值的 2 倍以內
Vibration resistance 抗振性	Amplitude: 1.5mm / Frequency: 10~55Hz / Duration of testing: 6 hrs Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 幅度: 1.5mm / 頻率: 10~55Hz / 測試時間: 6 小時 電容變化: 初始額定值的 $\pm 30\%$ 以內; 內阻: 初始規定值的 2 倍以內
Shelf life 儲存壽命	After 2 years at 25°C without load, the capacitor shall meet the specified endurance limits. 在 25°C 無負載條件下工作 2 年後, 電容器應達到規定的耐久性極限。

尺寸圖 Dimensions

Unit: mm



型號列表 model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 額定容量 (F)	Dimensions 尺寸 (mm)	Max.ESR 內阻		Maximum Leakage 最大漏電 (72hrs/mA)	Maximum Peak Current 峰值電流 (A)
			D x L	ESRAC (1kHz/mΩ)	ESRDC (mΩ)		
Radial Lead(Miniaturized)							
CXP-3R0224R-TW	3.0	0.22	4*10	1000	1820	0.001	0.19
CXP-3R0224R-TW	3.0	0.22	5*10	700	1200	0.002	0.36
CXP-3R0304R-TW	3.0	0.3	4*10	700	1200	0.001	0.25
CXP-3R0354R-TW	3.0	0.35	5*10	600	1000	0.002	0.40
CXP-3R0504R-TW	3.0	0.5	5*12	400	700	0.002	0.44
CXP-3R0604R-TW	3.0	0.6	4*22	700	1200	0.003	0.50
CXP-3R0105R-TWV	3.0	1.0	4*25	550	900	0.003	0.60
CXP-3R0105R-TWX	3.0	1	6.3*12	240	1500	0.006	0.60
CXP-3R0125R-TW	3.0	1.2	5*22	200	400	0.006	1.29
CXP-3R0355R-TW	3.0	3.5	6.3*22	90	130	0.010	2.71
CXP-3R0455R-TW	3.0	4.5	6.3*25	90	120	0.010	3.0
Radial Lead							
CXP-3R0105R-TWX	3.0	1	6.3*12	240	1500	0.006	0.60
CXP-3R0105R-TW	3.0	1	8*12	180	860	0.006	1.21
CXP-3R0205R-TW	3.0	2	8*16	100	360	0.010	2.21
CXP-3R0335R-TW	3.0	3.3	8*20	98	280	0.012	3.31
CXP-3R0405R-TW	3.0	4	10*20	75	113	0.018	4.20
CXP-3R0505R-TWX	3.0	5	8*25	90	135	0.015	4.48
CXP-3R0505R-TW	3.0	5	10*20	75	113	0.018	4.80
CXP-3R0705R-TW	3.0	7	10*20	70	170	0.020	4.79
CXP-3R0705R-TWQ	3.0	7	10*25	60	150	0.024	6.44
CXP-3R0106R-TWX	3.0	10	10*25	55	83	0.030	8.22
CXP-3R0106R-TWQ	3.0	10	10*30	45	68	0.036	8.96
CXP-3R0106R-TW	3.0	10	12.5*20	45	68	0.036	8.96
CXP-3R0126R-TW	3.0	12	12.5*25	40	60	0.048	10.47
CXP-3R0156R-TWX	3.0	15	12.5*30	35	53	0.062	12.59
CXP-3R0156R-TW	3.0	15	12.5*25	30	45	0.048	13.43
CXP-3R0206R-TW	3.0	20	12.5*25	35	47	0.050	13.64
CXP-3R0206R-TWQ	3.0	20	12.5*30	33	45	0.072	15.08
CXP-3R0226R-TW	3.0	22	12.5*35	34	48	0.060	14.50
CXP-3R0256R-TWQ	3.0	25	12.5*35	26	41	0.082	18.99
CXP-3R0256R-TW	3.0	25	16*25	25	38	0.082	19.35
CXP-3R0306R-TW	3.0	30	16*30	20	30	0.090	23.68
CXP-3R0356R-TWX	3.0	35	16*30	20	40	0.070	21.88
CXP-3R0356R-TW	3.0	35	16*35	18	25	0.105	26.99
CXP-3R0506R-TW	3.0	50	18*40	18	20	0.075	37.50
CXP-3R0606R-TW	3.0	60	18*40	15	20	0.100	40.90
CXP-3R0107R-TWV	3.0	100	18*60	13	20	0.260	50.85
CXP-3R0127R-TWV	3.0	120	18*60	12	15	0.300	61.45

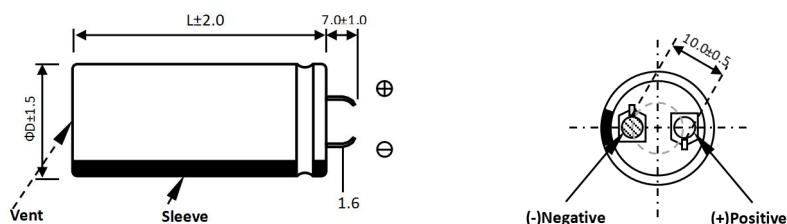
*通過適當的電壓降額工作溫度可擴展至 85°C

*with appropriate voltage derating operating temperature can be extended to 85°C

Φ22~30 尺寸圖 Dimensions

焊針型 2-PIN 100~250F 部分;端子類型: S1
SOLDER PIN TYPE 2-PIN 100~300F PART; Terminal S1 type

Unit: mm



型號列表 model list

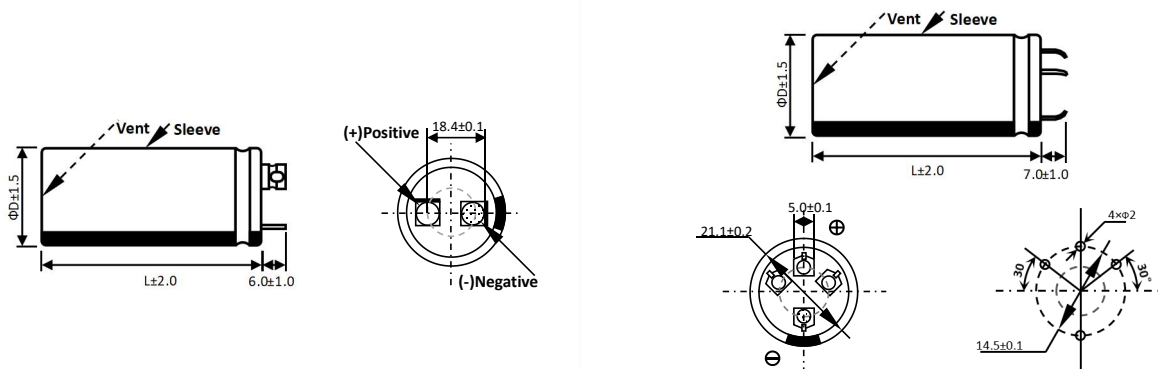
Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 額定容量 (F)	Dimensions 尺寸 (mm)	Max.ESR 內阻		Maximum Leakage 最大漏電 (72hrs/mA)	Maximum Peak Current 峰值電流 (A)
			D x L	ESRAC (1kHz/mΩ)	ESRDC (mΩ)		
CXP-3R0107R-TW	3.0	100	22*45	8.0	11.2	0.276	70.75
CXP-3R0127R-TW	3.0	120	22*50	7.5	10.5	0.345	79.65
CXP-3R0157R-TWQ	3.0	150	22*55	7.0	9.8	0.460	93.40
CXP-3R0167R-TW	3.0	160	22*55	7.0	9.5	0.460	94.20
CXP-3R0157R-TW	3.0	150	25*50	7.0	9.8	0.460	91.09
CXP-3R0227R-TW	3.0	220	30*50	6.0	8.4	0.598	115.87
CXP-3R0257R-TW	3.0	250	30*55	5.5	7.7	0.667	128.21

Φ35 尺寸圖 Dimensions

焊片型 2-PIN 360~480F 部分;端子類型: Z2
SOLDER PIN TYPE 2-PIN 360~480F PART; Terminal Z2 type

焊針式 4-PIN 360~480F 部分;端子類型: S4
SOLDER PIN TYPE 4-PIN 360~480F PART; Terminal S4 type

Unit: mm



型號列表 model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 額定容量 (F)	Dimensions 尺寸 (mm)	Max.ESR 內阻		Maximum Leakage 最大漏電 (72hrs/mA)	Maximum Peak Current 峰值電流 (A)
			D x L	ESRAC (1kHz/mΩ)	ESRDC (mΩ)		
CXP-3R0367R-TW	3.0	360	35*60	4.0	5.4	0.978	183.42
CXP-3R0387R-TW	3.0	380	35*60	3.8	5.1	1.05	193.26
CXP-3R0407R-TW	3.0	400	35*66	3.5	4.7	1.150	207.61
CXP-3R0437R-TW	3.0	430	35*66	3.2	4.5	1.24	223.14
CXP-3R0487R-TW	3.0	480	35*70	3.1	4.4	1.35	234.30
CXP-3R0507R-TW	3.0	500	35*65	2.9	3.4	1.30	277.70
CXP-3R0607R-TW	3.0	600	35*70	3.0	3.5	1.50	290.30

*通過適當的電壓降額工作溫度可擴展至 85°C

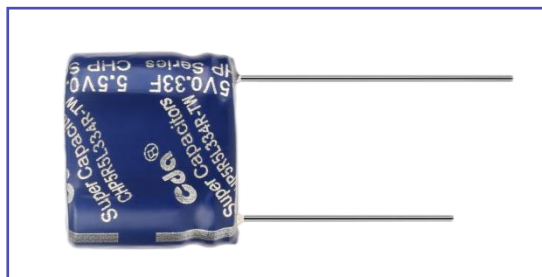
*with appropriate voltage derating operating temperature can be extended to 85°C

本公司在更改設計, 規格時可能不予事先通知, 敬請諒解。請務必在購買及使用本公司產品前向本公司索取相關技術規格書。如對產品的安全性有疑問時, 請速與本公司聯繫。
Please understand that our company may change the design and specifications without prior notice. Please be sure to ask our company for relevant technical specifications before purchasing and using our products. If you have any doubts about the safety of the product, please contact our company immediately.

CHP series

標準品
Standard

- 標準品/溫度範圍-40°C至 70°C
- 可實現小型化模組 H: 4.5/5.5/7mm
- 符合 RoHS 指令/無爆炸危險
- Standard/Temperature range -40°C to 70°C
- Can realize miniaturized module H: 4.5/5.5/7mm
- RoHS directive compliant / No Explosion Hazard



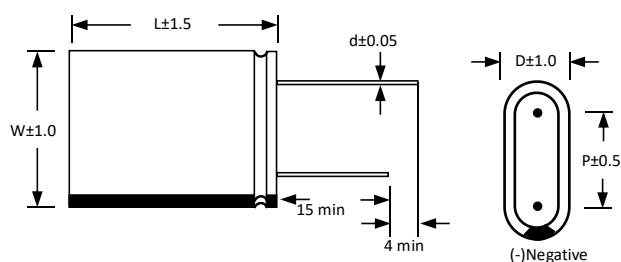
規格表 Specification Table

Operating temperature 工作溫度	-40°C to +70°C
Capacitance range 容量範圍	0.10F to 60F
Capacitance tolerance 容量誤差	-20%~+50%; +0%~+100%; -10%~+30%
Rated voltage 額定電壓	5.5 V
Surge voltage 沖擊電壓	5.7 V
Temperature characteristics 溫度特性	Capacitance change: Within $\pm 30\%$ of initial measured value at +25°C Internal resistance: Within $\pm 200\%$ of initial measured value at +25°C 電容變化: +25°C 時初始測量值的 $\pm 30\%$ 以內 內部電阻: +25°C 時初始測量值的 $\pm 200\%$ 以內
High temperature load time 高溫負荷特性	After 70°C 1000 hours (at 5.5V): Capacitance change: $\pm 30\%$ of initial rated value Internal resistance: Within 3 times of initial specified value 70°C 1000 小時後 (at 5.5V): 電容變化: 初始額定值的 $\pm 30\%$; 內阻: 初始規定值的 3 倍以內
Projected cycle life (From rated voltage to 1/2 rated voltage at 25°C) 預計循環壽命 (從額定電壓到額定電壓的 1/2 25°C 時的電壓)	After 500,000 cycles: Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 500,000 次循環後: 電容變化: 初始額定值的 $\pm 30\%$; 內阻: 初始規定值的 2 倍以內
Humidity characteristic 濕度特性	Relative humidity: 90%~95% /Duration of testing: 240 hrs /Temperature: 40 $\pm$ 2°C Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 相對濕度: 90%~95% /測試時間: 240 小時 /溫度: 40 $\pm$ 2°C 電容變化: 初始額定值的 $\pm 30\%$ 以內; 內阻: 初始規定值的 2 倍以內
Vibration resistance 抗振性	Amplitude: 1.5mm /Frequency: 10~55Hz /Duration of testing: 6 hrs Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 幅度: 1.5mm /頻率: 10~55Hz /測試時間: 6 小時 電容變化: 初始額定值的 $\pm 30\%$ 以內; 內阻: 初始規定值的 2 倍以內
Shelf life 儲存壽命	After 2 years at 25°C without load, the capacitor shall meet the specified endurance limits. 在 25°C 無負載條件下工作 2 年後, 電容器應達到規定的耐久性極限。

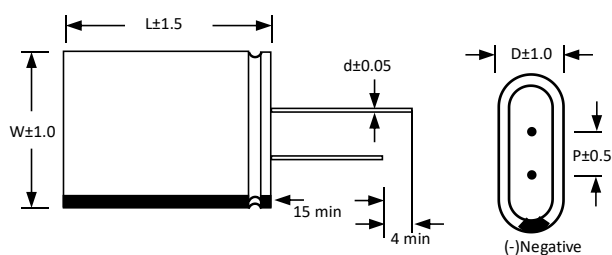
尺寸圖 Dimensions

Unit: mm

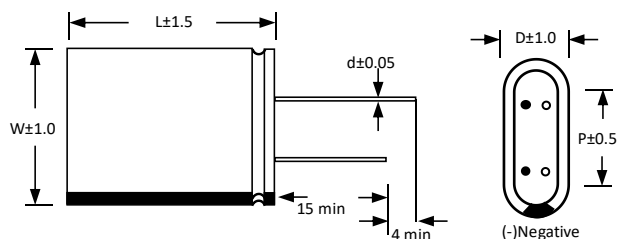
DA Type



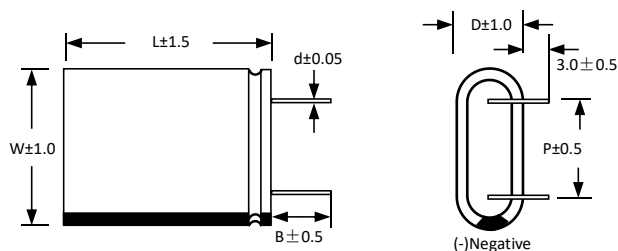
DB Type



DC Type



DZ Type



Cell Dia	D	W	P(mm)		Φd
			DA Type	DB Type	
Φ4.0	4	12	5.8	2.5	0.5
Φ5.0	5	12	7.5	3.5	0.5
Φ6.3	6.3	14	10.0	5.0	0.6
Φ8.0	8	16	11.5	5.0	0.6
Φ10.0	10	20	15.5	5.5	0.6
Φ12.5	12.5	25	17.5	7.5	0.6
Φ16.0	16	32	23.7	8.5	0.8
Φ18.0	18	60	26.0	10.5	0.8

Cell Dia	D	W	P(mm)			Φd
			DC Type	DZ Type	B(mm)	
Φ4.0	4	12	/	5.8	2.0	0.5
Φ5.0	5	12	/	7.5	2.0	0.5
Φ6.3	6.3	14	/	10.0	2.0	0.6
Φ8.0	8	16	8.0	11.5	2.0	0.6
Φ10.0	10	20	10.0	15.5	2.0	0.6
Φ12.5	12.5	25	13.0	17.5	2.0	0.6
Φ16.0	16	32	16.0	23.7	2.0	0.8
Φ18.0	18	60	20.0	26.0	2.0	0.8

*尺寸圖通用系列: CHP / CSP / CHT (如閱讀相關系列請參照 43 頁)

*General series of dimension drawings: CHP / CSP / CHT (Please refer to page 38 for reading related series)

型號列表 model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 額定容量 (F)	Dimensions 尺寸 (mm)	Max.ESR 內阻		Maximum Leakage 最大漏電 (72hrs/mA)	Maximum Peak Current 峰值電流 (A)
			W x D x L	ESRAC (1kHz/mΩ)	ESRDC (mΩ)		
5.0V Series-Connected SuperCapacitors Modules							
CHP5R0L104R-TW	5.0	0.1		2000	3500	0.09	0.17
CHP5R0L474R-TWX	5.0	0.47		400	1000	0.31	0.80
CHP5R0L474R-TW	5.0	0.47		400	1000	0.33	0.86
CHP5R0L105R-TW	5.0	1.0		200	720	0.45	1.45
CHP5R0L155R-TW	5.0	1.5		190	580	0.64	2.01
CHP5R0L255R-TW	5.0	2.5		140	360	0.75	3.29
CHP5R0L505R-TWX	5.0	5.0		100	150	1.10	7.14
CHP5R0L755R-TW	5.0	7.5		70	160	1.52	8.52
5.5V Series-Connected SuperCapacitors Modules(Miniaturized)							
CHP5R5L104R-TW	5.5	0.1	10*5*12	900	1800	0.09	0.17
CHP5R5L124R-TW	5.5	0.12	9*4*12	2000	3600	0.09	0.17
CHP5R5L224R-TWX	5.5	0.22	10*5*14	800	1500	0.12	0.42
CHP5R5L224R-TW	5.5	0.22	13*7*14	400	800	0.14	0.60
CHP5R5L474R-TWQ	5.5	0.47	9*4*27	1100	1800	0.18	0.54
CHP5R5L504R-TWX	5.5	0.5	13*7*14	400	1000	0.16	0.66
CHP5R5L155R-TWQ	5.5	1.5	13*7*24	190	380	0.53	2.71
CHP5R5L205R-TW	5.5	2.0	13*7*26	190	380	0.56	3.00
5.5V Series-Connected SuperCapacitors Modules							
CHP5R5L334R- TW	5.5	0.33	16*8*14	300	600	0.002	0.90
CHP5R5L474R-TW	5.5	0.47	16*8*14	300	600	0.002	0.99
CHP5R5L504R-TW	5.5	0.50	16*8*14	300	600	0.006	0.99
CHP5R5L105R-TW	5.5	1.0	16*8*14	360	540	0.006	1.79
CHP5R5L105R-TWX	5.5	1.0	16*8*18	240	360	0.010	2.02
CHP5R5L105R-TWQ	5.5	1.0	16*8*22	200	400	0.012	2.12
CHP5R5L155R-TW	5.5	1.5	16*8*22	200	300	0.012	2.84
CHP5R5L155R-TWX	5.5	1.5	13*7*24	190	280	0.010	2.44
CHP5R5L255R-TW	5.5	2.5	20*10*22	150	225	0.015	4.40
CHP5R5L255R-TWX	5.5	2.5	20*10*18	180	270	0.015	4.10
CHP5R5L255R-TWQ	5.5	2.5	16*8*27	160	330	0.017	4.05
CHP5R5L305R-TW	5.5	3.0	20*10*22	150	225	0.020	4.92
CHP5R5L355R-TW	5.5	3.5	20*10*22	150	225	0.020	5.38
CHP5R5L355R-TWQ	5.5	3.5	16*8*27	120	180	0.020	5.90
CHP5R5L405R-TW	5.5	4.0	20*10*27	150	315	0.028	5.35
CHP5R5L405R-TWX	5.5	4.0	25*12.5*22	90	135	0.030	8.21
CHP5R5L505R-TW	5.5	5.0	20*10*27	150	315	0.028	5.35
CHP5R5L505R-TWX	5.5	5.0	25*12.5*22	90	135	0.030	8.21
CHP5R5L505R-TWQ	5.5	5.0	20*10*32	90	135	0.030	8.21
CHP5R5L755R-TW	5.5	7.5	25*12.5*28	100	160	0.070	10.66
CHP5R5L755R-TWQ	5.5	7.5	25*13*32	70	105	0.052	11.54
CHP5R5L106R-TW	5.5	10	25*12.5*28	96	140	0.055	11.25
CHP5R5L106R-TWQ	5.5	10	25*13*32	70	105	0.055	13.42
CHP5R5L106R-TWX	5.5	10	25*13*37	60	90	0.056	14.47
CHP5R5L126R-TW	5.5	12	32*16*27	50	75	0.068	17.74
CHP5R5L156R-TW	5.5	15	32*16*32	70	120	0.095	15.00
CHP5R5L206R-TW	5.5	20	36*18*42	36	54	0.088	26.44
CHP5R5L206R-TWX	5.5	20	36*18*37	43	72	0.080	20.54
CHP5R5L256R-TW	5.5	25	36*18*42	40	60	0.110	27.50
CHP5R5L306R-TW	5.5	30	36*18*42	35	50	0.120	33.00
CHP5R5L416R-TW	5.5	41	36*18*42	45	60	0.250	31.53
CHP5R5L506R-TW	5.5	50	36*18*62	30	45	0.300	42.31
CHP5R5L606R-TW	5.5	60	36*18*62	25	40	0.25	50.47

*通過適當的電壓降額工作溫度可擴展至 85°C

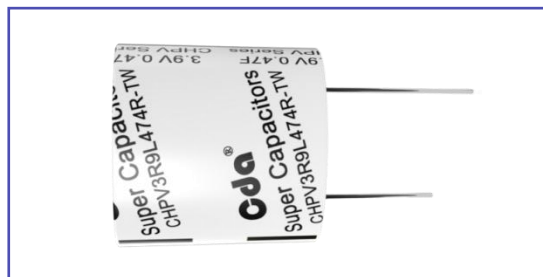
*with appropriate voltage derating operating temperature can be extended to 85°

本公司在更改設計，規格時可能不予事先通知，敬請諒解。請務必在購買及使用本公司產品前向本公司索取相關技術規格書。如對產品的安全性有疑義時，請速與本公司聯繫。
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CHPV series

長壽命
Long life

- 長壽命品/溫度範圍-40℃至 65℃
- 65℃可確保 5000 小時@3.9V
- 符合 RoHS 指令/無爆炸危險
- Long life product/Temperature range -40℃ to 65℃
- 5000 hours at 65℃@3.9V
- RoHS directive compliant / No Explosion Hazard



規格表 Specification Table

Operating temperature 工作溫度	-40℃ to +65℃
Capacitance range 容量範圍	0.33F to 10F
Capacitance tolerance 容量誤差	-20%~+50%; +0%~+100%; -10%~+30%
Rated voltage 額定電壓	3.9 V
Surge voltage 沖擊電壓	5.2 V
Temperature characteristics 溫度特性	Capacitance change: Within $\pm 30\%$ of initial measured value at +25℃ Internal resistance: Within $\pm 500\%$ of initial measured value at +25℃ 電容變化: +25℃ 時初始測量值的 $\pm 30\%$ 以內 內部電阻: +25℃ 時初始測量值的 $\pm 500\%$ 以內
High temperature load time 高溫負荷特性	After 65℃ 5000 hours (at 3.9V): Capacitance change: $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 65℃ 5000 小時後 (at 3.9V): 電容變化: 初始額定值的 $\pm 30\%$; 內阻: 初始規定值的 2 倍以內
Projected cycle life (From rated voltage to 1/2 rated voltage at 25℃) 預計循環壽命 (從額定電壓到額定電壓的 1/2 25℃ 時的電壓)	After 500,000 cycles: Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 500,000 次循環後: 電容變化: 初始額定值的 $\pm 30\%$; 內阻: 初始規定值的 2 倍以內
Humidity characteristic 濕度特性	Relative humidity: 90%~95% /Duration of testing: 240 hrs /Temperature: 40 $\pm$ 2℃ Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 相對濕度: 90%~95% /測試時間: 240 小時 /溫度: 40 $\pm$ 2℃ 電容變化: 初始額定值的 $\pm 30\%$ 以內; 內阻: 初始規定值的 2 倍以內
Vibration resistance 抗振性	Amplitude: 1.5mm /Frequency: 10~55Hz /Duration of testing: 6 hrs Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 幅度: 1.5mm /頻率: 10~55Hz /測試時間: 6 小時 電容變化: 初始額定值的 $\pm 30\%$ 以內; 內阻: 初始規定值的 2 倍以內
Shelf life 儲存壽命	After 15 years at 25℃ without load, the capacitor shall meet the specified endurance limits. 在 25℃ 無負載條件下工作 15 年後, 電容器應達到規定的耐久性極限。

*尺寸圖通用系列: CHP / CSP / CHT (如閱讀相關系列請參照 43 頁)

*General series of dimension drawings: CHP / CSP / CHT (Please refer to page 38 for reading related series)

 型號列表 model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 額定容量 (F)	Dimensions 尺寸 (mm)	Max.ESR 內阻		Maximum Leakage 最大漏電 (72hrs/mA)	Maximum Peak Current 峰值電流 (A)
			W x D x L	ESRAC (1kHz/mΩ)	ESRDC (mΩ)		
CHPV-3R9L474R-TW	3.9	0.47	16*8*14	320	480	0.47	0.75
CHPV-3R9L504R-TW	3.9	0.50	16*8*14	320	480	0.47	0.79
CHPV-3R9L105R-TW	3.9	1.0	16*8*14	320	480	0.47	1.32
CHPV-3R9L105R-TWX	3.9	1.0	16*8*18	240	360	0.61	1.43
CHPV-3R9L105R-TWQ	3.9	1.0	16*8*22	200	300	0.74	1.50
CHPV-3R9L155R-TW	3.9	1.5	16*8*22	200	300	0.74	2.02
CHPV-3R9L255R-TW	3.9	2.5	20*10*22	150	225	0.97	3.12
CHPV-3R9L255R-TWX	3.9	2.5	20*10*18	180	270	0.80	2.91
CHPV-3R9L255R-TWQ	3.9	2.5	16*8*27	180	270	0.87	2.91
CHPV-3R9L305R-TW	3.9	3.0	20*10*22	150	225	0.97	3.49
CHPV-3R9L355R-TW	3.9	3.5	20*10*22	150	225	0.97	3.82
CHPV-3R9L405R-TW	3.9	4.0	20*10*27	120	180	1.20	4.53
CHPV-3R9L405R-TWX	3.9	4.0	25*12.5*22	90	135	1.42	5.06
CHPV-3R9L505R-TW	3.9	5.0	20*10*27	120	180	1.20	5.13
CHPV-3R9L505R-TWX	3.9	5.0	25*12.5*22	90	135	1.42	5.82
CHPV-3R9L505R-TWQ	3.9	5.0	20*10*32	90	135	1.51	5.82
CHPV-3R9L755R-TW	3.9	7.5	25*12.5*28	80	120	1.69	7.70
CHPV-3R9L755R-TWQ	3.9	7.5	25*13*32	70	105	1.97	8.18
CHPV-3R9L106R-TWQ	3.9	10	25*13*32	70	105	1.97	9.51
CHPV-3R9L106R-TWX	3.9	10	25*13*37	60	90	2.28	10.26

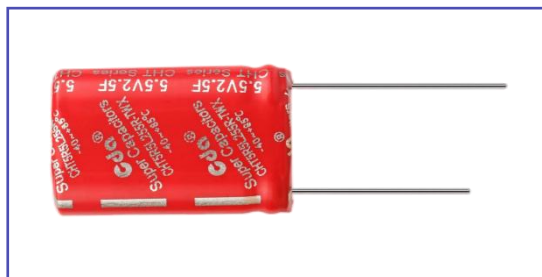
*通過適當的電壓降額工作溫度可擴展至 85°C

*with appropriate voltage derating operating temperature can be extended to 85°C

CHT series

耐高溫品
High Temperat

- 高溫高濕品/溫度範圍-40℃至 85℃
- 85℃ 高溫/85%濕度 ≤5.0V (1000 小時保證)
- 符合 RoHS 指令/無爆炸危險
- High temperature and high humidity
- temperature range -40℃ to 85℃
- 85℃ high temperature/H : 85% ≤5.0V (1000 hours guarantee)
- RoHS directive compliant / No Explosion Hazard



規格表 Specification Table

Operating temperature 工作溫度	-40℃ to +85℃
Capacitance range 容量範圍	0.47F to 50F
Capacitance tolerance 容量誤差	-20%~+50%; +/-20%
Rated voltage 額定電壓	5.5 V
Surge voltage 沖擊電壓	5.7 V
Temperature characteristics 溫度特性	Capacitance change: Within ±30% of initial measured value at +25℃ Internal resistance: Within ±200% of initial measured value at +25℃ 電容變化: +25℃ 時初始測量值的 ±30% 以內 內部電阻: +25℃ 時初始測量值的 ±200% 以內
High temperature load time 高溫負荷特性	After 85℃1000 hours H:85% (at 5.0V) Capacitance change: ±30% of initial rated value Internal resistance: Within 3 times of initial specified value 85℃ 1000 小時後 H:85% (at 5.0V): 電容變化: 初始額定值的±30%; 內阻: 初始規定值的 3 倍以內
Projected cycle life (From rated voltage to 1/2 rated voltage at 25℃) 預計循環壽命 (從額定電壓到額定電壓的 1/2 25℃ 時的電壓)	After 500,000 cycles: Capacitance change: Within ±30 % of initial rated value Internal resistance: Within 2 times of initial specified value 500,000 次循環後: 電容變化: 初始額定值的±30%; 內阻: 初始規定值的 2 倍以內
Humidity characteristic 濕度特性	Relative humidity: 90%~95% /Duration of testing:240 hrs /Temperature:40±2℃ Capacitance change: Within ±30 % of initial rated value Internal resistance: Within 2 times of initial specified value 相對濕度: 90%~95% /測試時間: 240 小時 /溫度: 40±2℃ 電容變化: 初始額定值的±30%以內; 內阻: 初始規定值的 2 倍以內
Vibration resistance 抗振性	Amplitude:1.5mm /Frequency:10~55Hz /Duration of testing:6 hrs Capacitance change: Within ±30 % of initial rated value Internal resistance: Within 2 times of initial specified value 幅度: 1.5mm /頻率: 10~55Hz /測試時間: 6 小時 電容變化: 初始額定值的±30%以內; 內阻: 初始規定值的 2 倍以內
Shelf life 儲存壽命	After 2 years at 25℃ without load, the capacitor shall meet the specified endurance limits. 在 25℃ 無負載條件下工作 2 年後, 電容器應達到規定的耐久性極限。

*尺寸圖通用系列: CHP / CSP / CHT (如閱讀相關系列請參照 43 頁)

*General series of dimension drawings: CHP / CSP / CHT (Please refer to page 38 for reading related series)

型號列表 model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 額定容量 (F)	Dimensions 尺寸 (mm)	Max.ESR 內阻		Maximum Leakage 最大漏電 (72hrs/mA)	Maximum Peak Current 峰值電流 (A)
			W x D x L	ESRAC (1kHz/mΩ)	ESRDC (mΩ)		
5.5V Series-Connected SuperCapacitors Modules(Miniaturized)							
CHT-5R5L104R-TW	5.5	0.1	10*5*12	900	1800	0.09	0.17
CHT-5R5L124R-TW	5.5	0.12	9*4*12	2000	3600	0.09	0.17
CHT-5R5L224R-TWX	5.5	0.22	10*5*14	800	1500	0.12	0.42
CHT-5R5L224R-TW	5.5	0.22	13*7*14	400	800	0.14	0.60
CHT-5R5L474R-TWQ	5.5	0.47	9*4*27	1100	1800	0.18	0.54
CHT-5R5L504R-TWX	5.5	0.5	13*7*14	400	1000	0.16	0.66
CHT-5R5L155R-TWQ	5.5	1.5	13*7*24	190	380	0.53	2.71
CHT-5R5L205R-TW	5.5	2.0	13*7*26	190	380	0.56	3.00
5.5V Series-Connected SuperCapacitors Modules							
CHT-5R5L474R-TW	5.5	0.47	16*8*14	320	480	0.006	1.05
CHT-5R5L504R-TW	5.5	0.50	16*8*14	320	400	0.006	1.08
CHT-5R5L105R-TW	5.5	1.0	16*8*18	240	360	0.010	2.02
CHT-5R5L155R-TW	5.5	1.5	16*8*22	200	300	0.012	2.84
CHT-5R5L255R-TWX	5.5	2.5	16*8*27	180	270	0.015	4.10
CHT-5R5L255R-TW	5.5	2.5	20*10*22	150	225	0.015	4.10
CHT-5R5L355R-TWX	5.5	3.5	20*10*27	120	180	0.020	5.90
CHT-5R5L355R-TW	5.5	3.5	20*10*22	140	200	0.022	5.55
CHT-5R5L505R-TW	5.5	5.0	20*10*27	120	180	0.030	7.24
CHT-5R5L505R-TWX	5.5	5.0	25*13*22	90	135	0.030	8.21
CHT-5R5L805R-TW	5.5	8.0	25*13*27	80	120	0.040	10.86
CHT-5R5L106R-TW	5.5	10	25*13*32	70	105	0.055	13.41
CHT-5R5L126R-TW	5.5	12.5	32*16*32	50	75	0.068	17.74
CHT-5R5L156R-TW	5.5	15	32*16*32	40	60	0.075	21.71
CHT-5R5L256R-TW	5.5	25	36*18*42	32	48	0.105	31.25
CHT-5R5L306R-TW	5.5	30	36*18*42	30	42	0.120	33.00
CHT-5R5L506R-TW	5.5	50	36*18*62	26	39	0.240	46.61

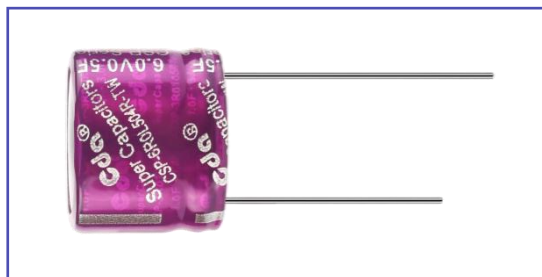
*注意：添加被動平衡，可根據要求提供其它選項，客戶可以根據實際應用進行選擇。

*Note: Adds passive balance. Balance options can be provided upon request. Customers can choose according to the application.

CSP series

高耐壓品
Highpressure

- 高耐壓品/6.0V 工作電壓
- 65°C/6.0V 1000 小時保證
- 符合 RoHS 指令/無爆炸危險
- High withstand voltage product/6.0V working voltage
- 65°C/6.0V 1000 hours guarantee
- Compliant with RoHS Directive / No explosion hazard



規格表 Specification Table

Operating temperature 工作溫度	-40°C to +65°C
Capacitance range 容量範圍	0.47F to 60F
Capacitance tolerance 容量誤差	-20%~+20% ; -10%~+30%
Rated voltage 額定電壓	6.0 V
Surge voltage 沖擊電壓	6.2 V
Temperature characteristics 溫度特性	Capacitance change: Within $\pm 30\%$ of initial measured value at +25°C Internal resistance: Within $\pm 200\%$ of initial measured value at +25°C 電容變化: +25°C 時初始測量值的 $\pm 30\%$ 以內 內部電阻: +25°C 時初始測量值的 $\pm 200\%$ 以內
High temperature load time 高溫負荷特性	After 65°C 1000 hours (at 6.0V) Capacitance change: $\pm 30\%$ of initial rated value Internal resistance: Within 3 times of initial specified value 65°C 1000 小時後 (at 6.0V): 電容變化: 初始額定值的 $\pm 30\%$; 內阻: 初始規定值的 3 倍以內
Projected cycle life (From rated voltage to 1/2 rated voltage at 25°C) 預計循環壽命 (從額定電壓到額定電壓的 1/2 25°C 時的電壓)	After 500,000 cycles: Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 500,000 次循環後: 電容變化: 初始額定值的 $\pm 30\%$; 內阻: 初始規定值的 2 倍以內
Humidity characteristic 濕度特性	Relative humidity: 90%~95% /Duration of testing: 240 hrs /Temperature: $40 \pm 2^\circ\text{C}$ Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 相對濕度: 90%~95% /測試時間: 240 小時 /溫度: $40 \pm 2^\circ\text{C}$ 電容變化: 初始額定值的 $\pm 30\%$ 以內; 內阻: 初始規定值的 2 倍以內
Vibration resistance 抗振性	Amplitude: 1.5mm /Frequency: 10~55Hz /Duration of testing: 6 hrs Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 幅度: 1.5mm /頻率: 10~55Hz /測試時間: 6 小時 電容變化: 初始額定值的 $\pm 30\%$ 以內; 內阻: 初始規定值的 2 倍以內
Shelf life 儲存壽命	After 2 years at 25°C without load, the capacitor shall meet the specified endurance limits. 在 25°C 無負載條件下工作 2 年後, 電容器應達到規定的耐久性極限。

*尺寸圖通用系列: CHP / CSP / CHT (如閱讀相關系列請參照 43 頁)

*General series of dimension drawings: CHP / CSP / CHT (Please refer to page 43 for reading related series)

型號列表 model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 額定容量 (F)	Dimensions 尺寸 (mm)	Max.ESR 內阻		Maximum Leakage 最大漏電 (72hrs/mA)	Maximum Peak Current 峰值電流 (A)
			W x D x L	ESRAC (1kHz/mΩ)	ESRDC (mΩ)		
6.0V Series-Connected SuperCapacitors Modules(Miniaturized)							
CSP-5R5L104R-TW	6.0	0.1	10*5*12	900	1800	0.10	0.25
CSP-5R5L124R-TW	6.0	0.12	9*4*12	2000	3600	0.09	0.19
CSP-5R5L224R-TWX	6.0	0.22	10*5*14	900	1700	0.15	0.44
CSP-5R5L224R-TW	6.0	0.22	13*7*14	400	800	0.18	0.60
CSP-5R5L474R-TWQ	6.0	0.47	9*4*27	1100	1800	0.18	0.54
CSP-5R5L504R-TWX	6.0	0.5	13*7*14	400	800	0.16	0.66
CSP-6R0L155R-TWQ	6.0	1.5	13*7*24	190	380	0.53	2.71
CSP-6R0L205R-TW	6.0	2.0	13*7*26	190	380	0.56	3.00
6.0V Series-Connected SuperCapacitors Modules							
CSP-6R0L474R-TWX	6.0	0.47	13*7*14	500	3000	0.006	0.98
CSP-6R0L474R-TW	6.0	0.47	16*8*14	320	480	0.007	1.15
CSP-6R0L504R-TW	6.0	0.50	16*8*14	350	490	0.007	1.20
CSP-6R0L105R-TW	6.0	1.0	16*8*18	240	360	0.012	2.21
CSP-6R0L155R-TWX	6.0	1.5	16*8*18	260	320	0.013	2.84
CSP-6R0L155R-TW	6.0	1.5	16*8*22	200	300	0.014	3.10
CSP-6R0L255R-TWX	6.0	2.5	16*8*27	180	270	0.018	4.48
CSP-6R0L255R-TW	6.0	2.5	20*10*22	150	225	0.018	4.80
CSP-6R0L355R-TW	6.0	3.5	20*10*22	140	200	0.020	6.05
CSP-6R0L405R-TW	6.0	4.0	20*10*27	120	180	0.036	7.89
CSP-6R0L405R-TWX	6.0	4.0	25*13*22	120	180	0.036	7.89
CSP-6R0L505R-TWX	6.0	5.0	25*13*22	90	135	0.036	8.96
CSP-6R0L505R-TW	6.0	5.0	20*10*27	90	135	0.036	8.96
CSP-6R0L755R-TW	6.0	7.5	25*13*27	80	120	0.048	11.84
CSP-6R0L106R-TW	6.0	10	25*13*32	70	105	0.066	14.63
CSP-6R0L126R-TW	6.0	12.5	32*16*27	50	75	0.082	19.35
CSP-6R0L156R-TW	6.0	15	32*16*32	40	60	0.090	23.68
CSP-6R0L256R-TW	6.0	25	36*18*42	32	48	0.126	34.09
CSP-6R0L306R-TW	6.0	30	36*18*42	30	45	0.145	38.30
CSP-6R0L506R-TW	6.0	50	36*18*62	26	39	0.240	50.85
CSP-6R0L606R-TW	6.0	60	36*18*62	24	28	0.260	56.96

*注意：添加被動平衡，可根據要求提供其它選項，客戶可以根據實際應用進行選擇。

*Note: Adds passive balance. Balance options can be provided upon request. Customers can choose according to the application.

CZP series

高耐壓品
High pressure

- 高耐壓品 (7.5V 8.1V 9.0V)
- 溫度範圍 -40°C 至 65°C
- 符合 RoHS 指令 / 無爆炸危險
- High voltage products (7.5V 8.1V 9.0V)
- Temperature range -40°C to 65°C
- Compliant with RoHS Directive / No explosion hazard



規格表 Specification Table

Operating temperature 工作溫度	-40°C to +65°C
Capacitance range 容量範圍	0.33F to 6.5F
Capacitance tolerance 容量誤差	-10% to +30%; -0% to +100%
Rated voltage 額定電壓	7.5 V/8.1 V/9.0 V
Temperature characteristics 溫度特性	Capacitance change: Within $\pm 30\%$ of initial measured value at +25°C Internal resistance: Within $\pm 200\%$ of initial measured value at +25°C 電容變化: +25°C 時初始測量值的 $\pm 30\%$ 以內 內部電阻: +25°C 時初始測量值的 $\pm 200\%$ 以內
High temperature load time 高溫負荷特性	After 65°C 1000 hours (at: 7.5V/8.1V/9.0V) Capacitance change: $\pm 30\%$ of initial rated value Internal resistance: Within 3 times of initial specified value 65°C 1000 小時後 (at: 7.5V/8.1V/9.0V): 電容變化: 初始額定值的 $\pm 30\%$; 內阻: 初始規定值的 3 倍以內
Projected cycle life (From rated voltage to 1/2 rated voltage at 25°C) 預計循環壽命 (從額定電壓到額定電壓的 1/2 25°C 時的電壓)	After 500,000 cycles: Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 500,000 次循環後: 電容變化: 初始額定值的 $\pm 30\%$; 內阻: 初始規定值的 2 倍以內
Humidity characteristic 濕度特性	Relative humidity: 90%~95% / Duration of testing: 240 hrs / Temperature: $40 \pm 2^\circ\text{C}$ Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 相對濕度: 90%~95% / 測試時間: 240 小時 / 溫度: $40 \pm 2^\circ\text{C}$ 電容變化: 初始額定值的 $\pm 30\%$ 以內; 內阻: 初始規定值的 2 倍以內
Vibration resistance 抗振性	Amplitude: 1.5mm / Frequency: 10~55Hz / Duration of testing: 6 hrs Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 幅度: 1.5mm / 頻率: 10~55Hz / 測試時間: 6 小時 電容變化: 初始額定值的 $\pm 30\%$ 以內; 內阻: 初始規定值的 2 倍以內
Shelf life 儲存壽命	After 2 years at 25°C without load, the capacitor shall meet the specified endurance limits. 在 25°C 無負載條件下工作 2 年後, 電容器應達到規定的耐久性極限。

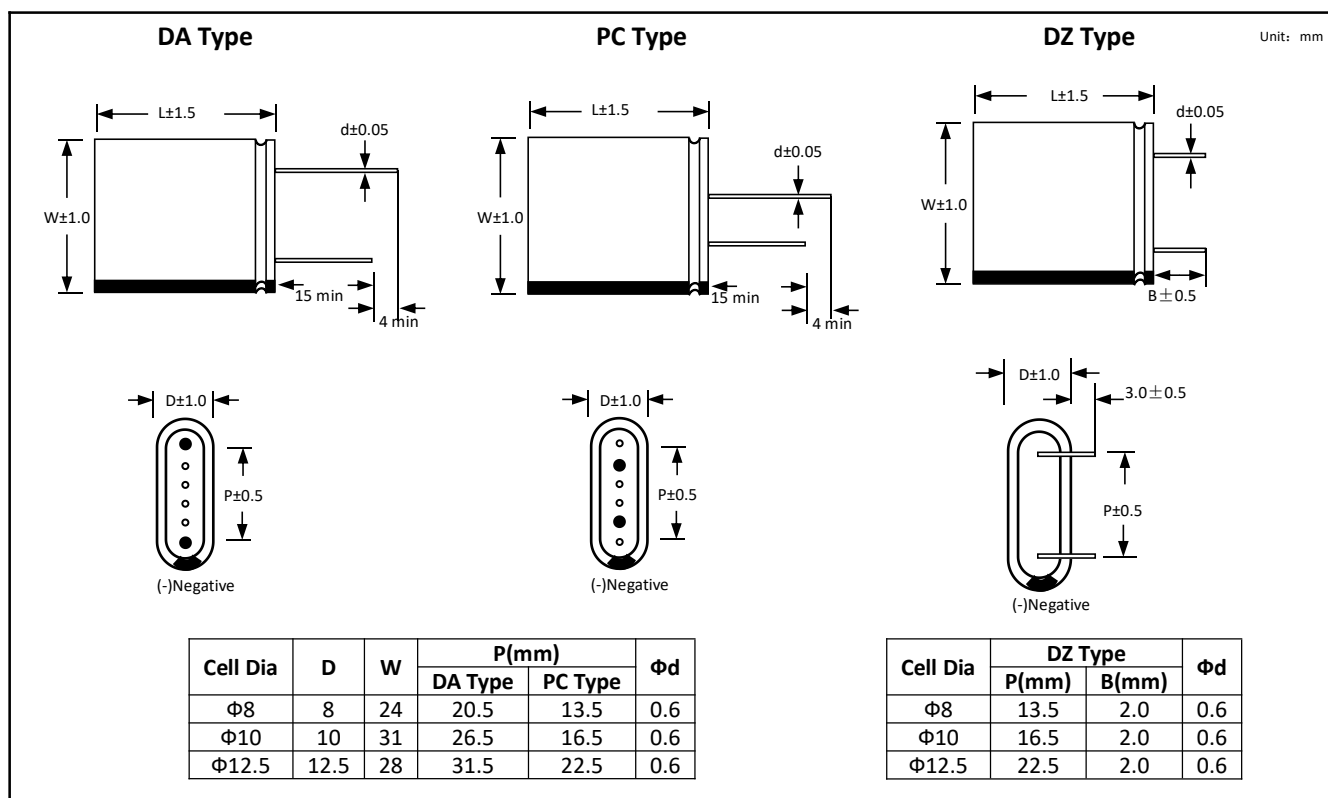
工作溫度範圍 Operating Temperature Range

Operating temperature 工作溫度	7.5V Series		8.1V Series		9.0V Series	
	Balanced 均衡	Unbalanced 無均衡	Balanced 均衡	Unbalanced 無均衡	Balanced 均衡	Unbalanced 無均衡
-40°C ~ +65°C	7.5V	7.0V	8.1V	7.5V	9.0V	8.6V
-40°C ~ +85°C	6.4V	5.9V	6.9V	6.4V	/	/

*通過適當的電壓降額工作溫度可擴展至 85°C

*with appropriate voltage derating operating temperature can be extended to 85°C

尺寸圖 Dimensions



型號列表 model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 額定容量 (F)	Dimensions 尺寸 (mm)	Max.ESR 內阻		Maximum Leakage 最大漏電 (72hrs/mA)	Maximum Peak Current 峰值電流 (A)
			W x D x L	ESRAC (1kHz/mΩ)	ESRDC (mΩ)		
CZP-7R5L334R-TW	7.5	0.33	24*8*14	450	900	0.006	0.99
CZP-7R5L604R-TW		0.6	24*8*18	225	450	0.009	1.77
CZP-7R5L105R-TW		1	24*8*22	180	360	0.011	2.76
CZP-7R5L155R-TW		1.5	32*11*22	300	600	0.002	3.65
CZP-7R5L225R-TW		2.2	32*11*22	250	500	0.002	4.61
CZP-7R5L335R-TW		3.3	32*11*31	200	330	0.030	5.33
CZP-7R5L335R-TWX		3.3	32*11*27	195	294	0.030	6.84
CZP-7R5L505R-TW		5	38*13*28	160	260	0.055	10.66
CZP-7R5L655R-TW		6.5	38*13*28	150	220	0.007	11.25
CZP-8R1L334R-TW	8.1	0.33	24*8*14	500	2900	0.007	0.69
CZP-8R1L604R-TW		0.6	24*8*18	400	1100	0.009	1.47
CZP-8R1L105R-TW		1.0	24*8*22	350	850	0.012	2.20
CZP-8R1L335R-TW		3.3	32*11*27	190	290	0.030	7.20
CZP-9R0L334R-TW	9.0	0.33	24*8*14	500	2900	0.007	0.77
CZP-9R0L604R-TW		0.6	24*8*18	400	1100	0.012	1.64
CZP-9R0L105R-TW		1.0	24*8*22	350	850	0.018	2.45
CZP-9R0L335R-TW		3.3	32*11*27	170	250	0.030	8.22

*注意：添加被動平衡，可根據要求提供其它選項，客戶可以根據實際應用進行選擇。

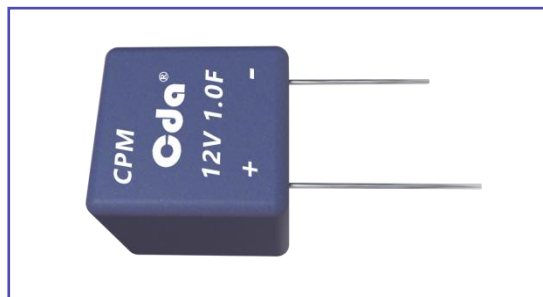
*Note: Adds passive balance. Balance options can be provided upon request. Customers can choose according to the application.

CPM series

小型化模組品

Miniaturized module products

- 高耐壓品 (10.8V 11V 12V)
- 溫度範圍 -40°C 至 70°C
- 符合 RoHS 指令 / 無爆炸危險
- High voltage products (10.8V 11V 12V)
- Temperature range -40°C to 70°C
- Compliant with RoHS Directive / No explosion hazard



規格表 Specification Table

Operating temperature 工作溫度	-40°C to +70°C
Capacitance range 容量範圍	0.1F to 12F
Capacitance tolerance 容量誤差	-20% to +20%
Rated voltage 額定電壓	10.8 V / 11 V / 12 V
Temperature characteristics 溫度特性	Capacitance change: Within $\pm 30\%$ of initial measured value at +25°C Internal resistance: Within $\pm 200\%$ of initial measured value at +25°C 電容變化: +25°C 時初始測量值的 $\pm 30\%$ 以內 內部電阻: +25°C 時初始測量值的 $\pm 200\%$ 以內
High temperature load time 高溫負荷特性	After 65°C 1000 hours Capacitance change: $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 65°C 1000 小時後: 電容變化: 初始額定值的 $\pm 30\%$; 內阻: 初始規定值的 2 倍以內
Projected cycle life (From rated voltage to 1/2 rated voltage at 25°C) 預計循環壽命 (從額定電壓到額定電壓的 1/2 25°C 時的電壓)	After 500,000 cycles: Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 500,000 次循環後: 電容變化: 初始額定值的 $\pm 30\%$; 內阻: 初始規定值的 2 倍以內
Humidity characteristic 濕度特性	Relative humidity: 90%~95% / Duration of testing: 240 hrs / Temperature: 40 $\pm$ 2°C Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 相對濕度: 90%~95% / 測試時間: 240 小時 / 溫度: 40 $\pm$ 2°C 電容變化: 初始額定值的 $\pm 30\%$ 以內; 內阻: 初始規定值的 2 倍以內
Vibration resistance 抗振性	Amplitude: 1.5mm / Frequency: 10~55Hz / Duration of testing: 6 hrs Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 幅度: 1.5mm / 頻率: 10~55Hz / 測試時間: 6 小時 電容變化: 初始額定值的 $\pm 30\%$ 以內; 內阻: 初始規定值的 2 倍以內
Shelf life 儲存壽命	After 2 years at 25°C without load, the capacitor shall meet the specified endurance limits. 在 25°C 無負載條件下工作 2 年後, 電容器應達到規定的耐久性極限。

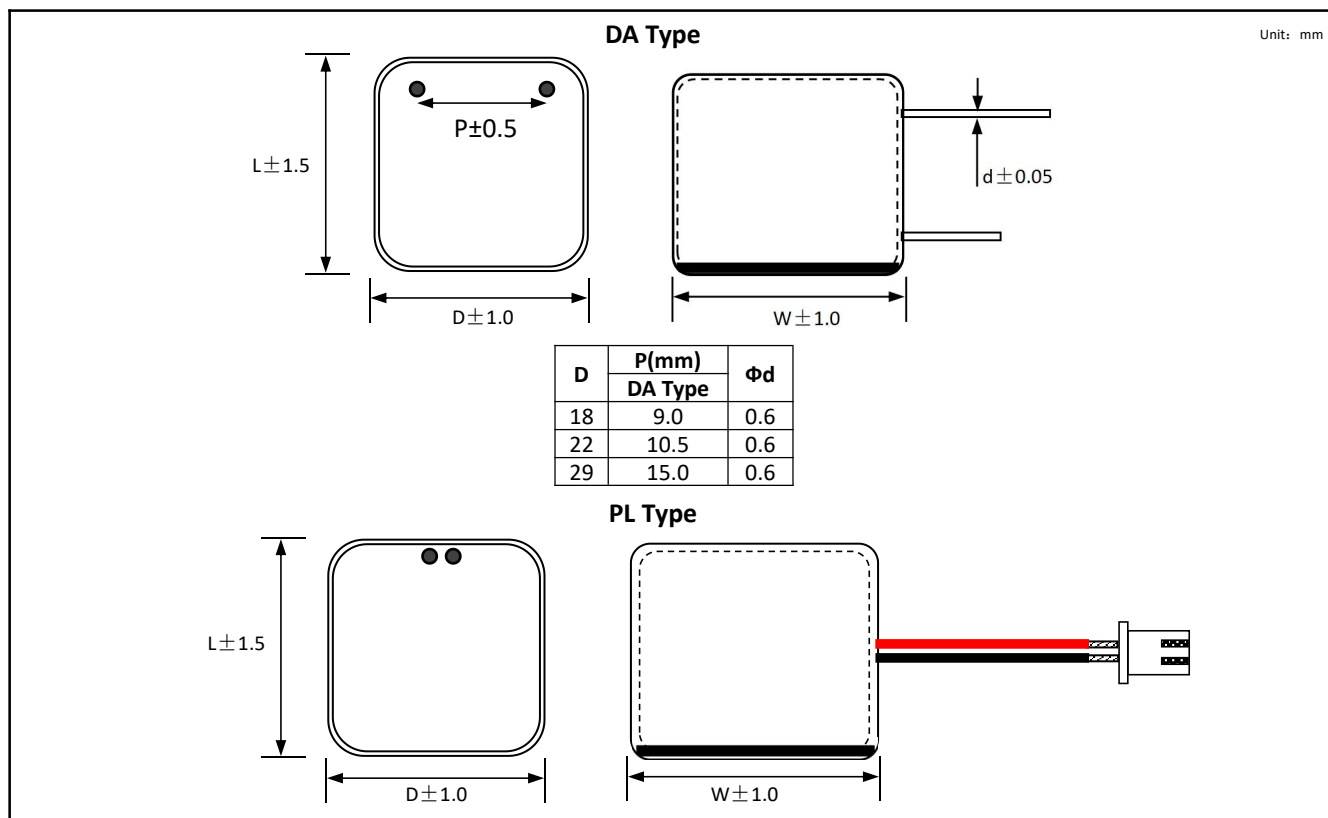
工作溫度範圍 Operating Temperature Range

Operating temperature 工作溫度	10.8V Series		11.0V Series		12.0V Series	
	Balanced 均衡	Unbalanced 無均衡	Balanced 均衡	Unbalanced 無均衡	Balanced 均衡	Unbalanced 無均衡
-40°C ~ +65°C	10.8V	10.0V	11.0V	10.2V	12V	11.2V
-40°C ~ +85°C	9.6V	8.8V	9.8V	9.0V	/	/

*通過適當的電壓降額工作溫度可擴展至 85°C

*with appropriate voltage derating operating temperature can be extended to 85°C

尺寸圖 Dimensions



型號列表 model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 額定容量 (F)	Dimensions 尺寸 (mm)	Max.ESR 內阻		Maximum Leakage 最大漏電 (72hrs/mA)	Maximum Peak Current 峰值電流 (A)
			W x D x L	ESRAC (1kHz/mΩ)	ESRDC (mΩ)		
CPM-10R8L104R-TW	10.8	0.1	14X18X18	520	720	0.012	2.27
CPM-10R8L224R-TW		0.22	14X18X18	500	700	0.012	2.70
CPM-10R8L334R-TW		0.33	18X18X18	400	780	0.025	2.27
CPM-10R8L474R-TW		0.47	18X18X18	520	720	0.012	2.56
CPM-10R8L504R-TW		0.5	22X18X18	400	480	0.012	2.15
CPM-10R8L105R-TW		1	22X22X22	280	680	0.015	3.65
CPM-10R8L155R-TW		1.5	22X29X29	180	272	0.030	8.06
CPM-10R8L205R-TW		2	22X29X29	200	300	0.036	8.53
CPM-10R8L255R-TW		2.5	27X22X22	260	392	0.030	6.84
CPM-10R8L305R-TW		3	27X29X29	160	240	0.050	10.66
CPM-10R8L505R-TW		5	32X29X29	140	212	0.055	13.17
CPM-10R8L605R-TW		6	37X29X29	120	188	0.080	18.55
CPM-10R8L106R-TW	11	10	48X29X29	80	180	0.080	23.68
CPM-10R8L126R-TW		12	52X29X29	72	140	0.105	28.72
CPM-11R0L224R-TW		0.22	14X18X16	720	3440	0.006	1.21
CPM-11R0L474R-TW	12	0.47	22X22X20	300	452	0.018	4.20
CPM-11R0L105R-TW		1	22X22X20	300	452	0.018	4.80
CPM-12R0L504R-TW		0.5	22X18X18	392	1120	0.012	3.31
CPM-12R0L105R-TW	12	1	22X22X22	300	452	0.018	4.80
CPM-12R0L205R-TW		2	22X29X29	180	272	0.036	8.96
CPM-12R0L305R-TW		3	27X29X29	160	240	0.048	10.47
CPM-12R0L505R-TW		5	32X29X29	132	180	0.072	15.08
CPM-12R0L605R-TW		6	37X29X29	104	164	0.082	18.99

*注意：添加被動平衡，可根據要求提供其它選項，客戶可以根據實際應用進行選擇。

*Note: Adds passive balance. Balance options can be provided upon request. Customers can choose according to the application.

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CMZ series

獨特的超薄型超級電容器模塊
Unique ultra-thin supercapacitor module

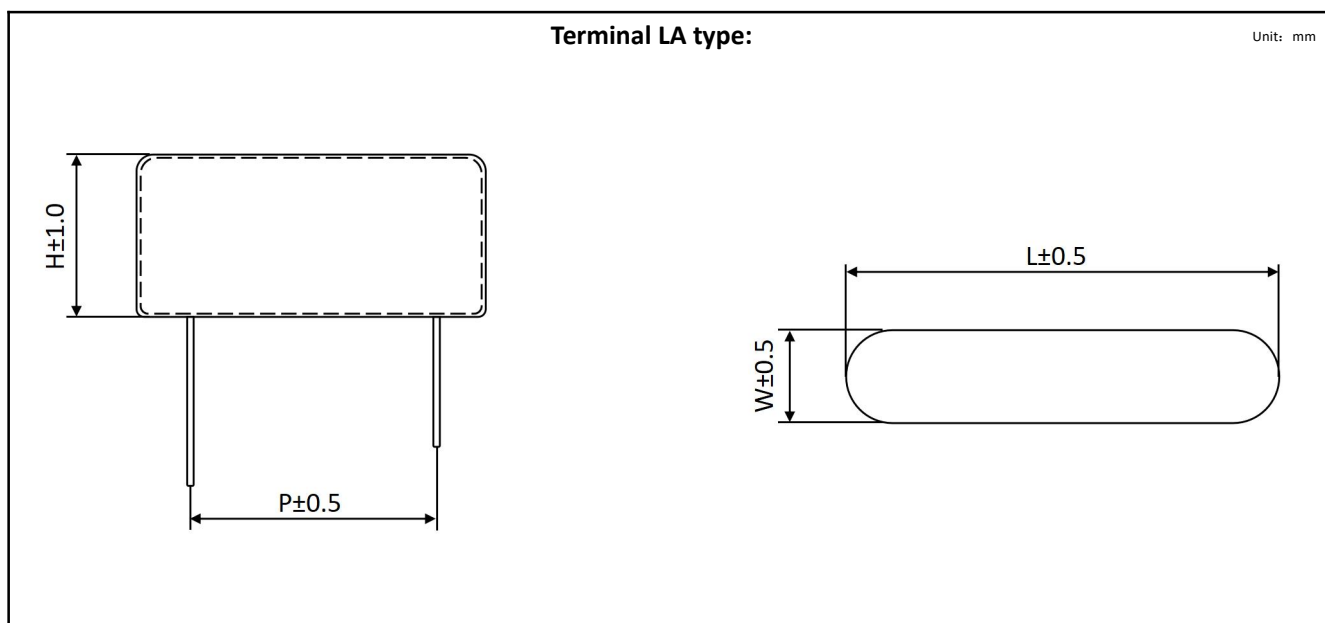
- 獨特的超薄型超級電容器模塊 (8.1V/32.4V)
- 65°C 1000 小時保證
- 符合 RoHS 指令 / 無爆炸危險
- Unique ultra-thin Supercapacitor module (8.1V/32.4V)
- 65°C 1000 hours guarantee
- Compliant with RoHS Directive / No explosion hazard



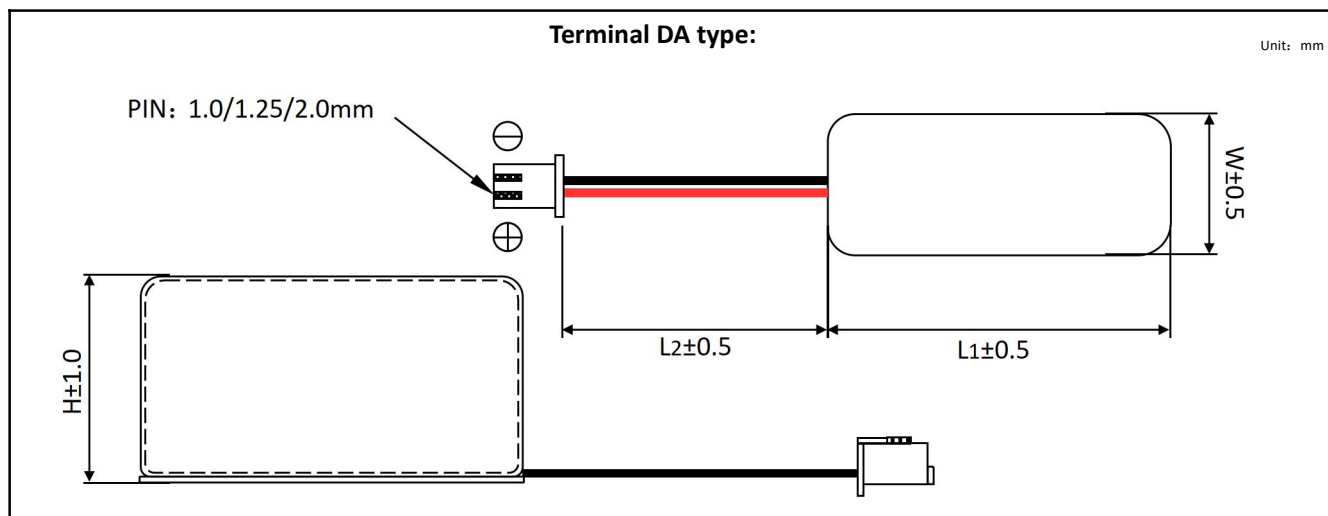
規格表 Specification Table

Operating temperature 工作溫度	-40°C to +65°C
Capacitance range 容量範圍	0.41F to 30F
Rated voltage 額定電壓	8.1 VDC / 32.4 VDC
Temperature characteristics 溫度特性	Capacitance change: Within $\pm 50\%$ of initial measured value at +25°C Internal resistance: Within $\pm 500\%$ of initial measured value at +25°C 電容變化: +25°C 時初始測量值的 $\pm 30\%$ 以內 內部電阻: +25°C 時初始測量值的 $\pm 200\%$ 以內
High temperature load time 高溫負荷特性	After 65°C 1000 hours Capacitance change: $\pm 30\%$ of initial rated value Internal resistance: Within 3 times of initial specified value 65°C 1000 小時後: 電容變化: 初始額定值的 $\pm 30\%$; 內阻: 初始規定值的 3 倍以內
Projected cycle life (From rated voltage to 1/2 rated voltage at 25°C) 預計循環壽命 (從額定電壓到額定電壓的 1/2 25°C 時的電壓)	After 500,000 cycles: Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 500,000 次循環後: 電容變化: 初始額定值的 $\pm 30\%$; 內阻: 初始規定值的 2 倍以內
Shelf life 儲存壽命	After 2 years at 25°C without load, the capacitor shall meet the specified endurance limits. 在 25°C 無負載條件下工作 2 年後, 電容器應達到規定的耐久性極限。

尺寸圖 Dimensions



尺寸圖 Dimensions



型號列表 model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 額定容量 (F)	Dimensions 尺寸 (mm)				Max.ESR 內阻		Maximum Leakage 最大漏電 (72hrs/mA)	Maximum Peak Current 峰值電流 (A)
			W	L	H	P	ESRAC (1kHz/mΩ)	ESRDC (mΩ)		
CMZ1030S3358R1W-LA	8.1	3.33	11	31	33	28	135	204	0.030	8.06
CMZ1025S3358R1W-LA		3.33	11	31	28	28	180	270	0.033	6.89
CMZ1325S6658R1W-LA		6.66	14	40	28	34.5	120	180	0.050	11
CMZ1625S7358R1W-LA		7.33	17	49	28	44	75	114	0.068	17.42
CMZ1630S1168R1W-LA		11.33	17	49	33	44	60	90	0.080	23.05
CMZ1346S1368R1W-LA		13.33	14	40	49	34.5	60	90	0.080	24.55
CMZ1840S1668R1W-LA		16.66	19	55	43	49.5	48	72	0.105	30.68
CMZ1840S2768R1W-LA		27.33	19	55	43	49.5	54	90	0.130	40.15
CMZ1025S25510R8W-LA	10.8	2.5	11	41	28	38.5	240	360	0.033	7.11
CMZ1326S45510R8W-LA		4.5	14	53	29	44	160	240	0.050	12.05
CMZ1625S55510R8W-LA		5.5	17	65	28	57	100	152	0.068	18.20
CMZ1630S70510R8W-LA		7	17	65	33	57	80	120	0.075	21.32
CMZ1635S85510R8W-LA		8.5	17	65	38	57	80	120	0.080	23.05
CMZ1346S10610R8W-LA		10	14	53	49	44	80	120	0.080	25.05
CMZ1835S11610R8W-LA		11.25	19	73	38	63	72	108	0.088	25.96
CMZ1840S20610R8W-LA		20.5	19	73	43	63	72	120	0.130	41.05
CMZ1860S25610R8W-LA	13.5	25	19	73	63	63	52	80	0.240	45.76
CMZ1860S30610R8W-LA		30	19	73	63	63	52	80	0.280	48.50
CMZ1020S40413R5W-LA		0.4	11	51	23	47.5	450	675	0.020	4.03
CMZ1020S10513R5W-LA		1	11	51	23	47.5	375	565	0.015	4.32
CMZ1030S20513R5W-LA		2	11	51	33	47.5	225	340	0.030	8.06
CMZ1320S30513R5W-LA		3	14	66	23	56	225	340	0.040	10.06
CMZ1325S40513R5W-LA		4	14	66	28	56	200	300	0.050	11.68
CMZ1335S44513R5W-LA		4.4	14	66	38	56	150	225	0.060	15.88
CMZ1625S50513R5W-LA	13.5	5	17	81	28	76	125	190	0.068	17.42
CMZ1630S56513R5W-LA		5.6	17	81	33	76	100	150	0.075	21.32
CMZ1346S68513R5W-LA		6.8	14	66	49	56	100	150	0.080	23.02
CMZ1346S80513R5W-LA		8	14	66	49	56	100	150	0.080	24.55
CMZ1835S90513R5W-LA		9	19	91	38	85.5	90	135	0.110	30.92
CMZ1840S12613R5W-LA		12	19	91	43	85.5	75	115	0.150	34.47
CMZ1840S16613R5W-LA		16.4	19	91	43	85.5	90	150	0.130	41.05
CMZ1860S20613R5W-LA		20	19	91	63	85.5	65	100	0.240	45.76
CMZ1860S24613R5W-LA		24	19	91	63	85.5	65	100	0.280	48.50

*注意：添加被動平衡，可根據要求提供其它選項，客戶可以根據實際應用進行選擇。

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型號列表 model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 額定容量 (F)	Dimensions 尺寸 (mm)			Max.ESR 內阻		Maximum Leakage 最大漏電 (72hrs/mA)	Maximum Peak Current 峰值電流 (A)
			W	L	H	ESRAC (1kHz/mΩ)	ESRDC (mΩ)		
CMZ1025S16516R2W-DA	16.2	1.66	11	61	28	360	540	0.030	7.11
CMZ1320S25516R2W-DA		2.5	14	79	23	270	408	0.040	10.06
CMZ1330S36516R2W-DA		3.66	14	79	33	210	318	0.055	13.17
CMZ1630S46516R2W-DA		4.66	17	97	33	120	180	0.075	21.32
CMZ1635S56516R2W-DA		5.66	17	97	38	120	180	0.080	23.05
CMZ1835S58516R2W-DA		5.83	19	109	38	108	162	0.088	25.96
CMZ1346S66516R2W-DA		6.66	14	79	43	120	180	0.080	24.55
CMZ1840S75516R2W-DA		7.5	19	109	43	96	144	0.105	30.68
CMZ1840S10616R2W-DA		10	19	109	43	90	138	0.150	34.47
CMZ1840S13616R2W-DA		13.66	19	109	43	108	180	0.130	41.02
CMZ1860S16616R2W-DA		16.6	19	109	63	78	120	0.240	45.76
CMZ1860S20616R2W-DA		20	19	109	63	78	120	0.280	48.50
CMZ1016S50421R6W-DA	21.6	0.5	22	41	20	20	720	0.020	4.03
CMZ1020S60421R6W-DA		0.62	22	41	23	23	600	0.015	4.32
CMZ1030S12521R6W-DA		1.25	22	41	33	33	360	0.030	8.06
CMZ1330S27521R6W-DA		2.75	28	53	33	33	280	0.055	13.17
CMZ1630S35521R6W-DA		3.5	34	65	33	33	160	0.075	21.32
CMZ1630S42521R6W-DA		4.25	34	65	33	33	160	0.080	23.05
CMZ1346S50521R6W-DA		5	28	53	49	49	160	0.080	24.55
CMZ1840S56521R6W-DA		5.62	38	73	43	43	128	0.105	30.68
CMZ1840S75521R6W-DA		7.5	38	73	43	43	120	0.150	34.47
CMZ1840S10621R6W-DA		10.25	38	73	43	43	144	0.130	41.02
CMZ1860S12621R6W-DA		12.5	38	73	63	63	104	0.240	45.76
CMZ1860S15621R6W-DA		15	38	73	63	63	104	0.280	48.50
CMZ1020S50427R0W-DA	27.0	0.5	22	51	23	23	600	0.020	5.80
CMZ1030S10527R0W-DA		1	22	51	33	33	450	0.030	8.06
CMZ1330S22527R0W-DA		2.2	28	66	33	33	350	0.055	13.17
CMZ1625S22527R0W-DA		2.2	34	81	28	28	250	0.068	17.42
CMZ1630S28527R0W-DA		2.8	34	81	33	33	200	0.075	21.32
CMZ1630S34527R0W-DA		3.4	34	81	33	33	200	0.080	23.05
CMZ1346S40527R0W-DA		4.0	28	66	49	49	200	0.080	24.55
CMZ1840S45527R0W-DA		4.5	38	91	43	43	160	0.105	30.68
CMZ1840S60527R0W-DA		6	38	91	43	43	150	0.150	34.47
CMZ1840S82527R0W-DA		8.2	38	91	43	43	180	0.130	41.02
CMZ1860S10627R0W-DA		10	38	91	63	63	130	0.240	45.76
CMZ1860S12627R0W-DA		12	38	91	63	63	130	0.280	48.50
CMZ1020S41432R4W-DA	32.4	0.41	22	61	23	23	900	0.020	5.29
CMZ1030S83432R4W-DA		0.83	22	61	33	33	540	0.030	8.06
CMZ1330S18532R4W-DA		1.83	28	79	33	33	420	0.055	13.17
CMZ1630S23532R4W-DA		2.33	34	97	33	33	240	0.075	21.32
CMZ1630S28532R4W-DA		2.83	34	97	33	33	240	0.080	23.05
CMZ1346S33532R4W-DA		3.33	28	79	49	49	240	0.080	24.55
CMZ1840S37532R4W-DA		3.75	38	109	43	43	192	0.105	30.68
CMZ1840S50532R4W-DA		5	38	109	43	43	180	0.150	34.47
CMZ1840S68532R4W-DA		6.83	38	109	43	43	216	0.130	41.02
CMZ1860S83532R4W-DA		8.33	38	109	63	63	156	0.240	45.76
CMZ1860S10632R4W-DA		10	38	109	63	63	156	0.280	48.50

*注意：添加被動平衡，可根據要求提供其它選項，客戶可以根據實際應用進行選擇。

*Note: Adds passive balance. Balance options can be provided upon request. Customers can choose according to the application.

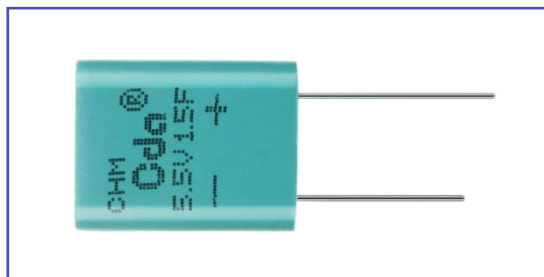
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CHM series

防潮型
Moisture proof

- 防潮最佳品 (5.5V/6.0V/7.5V/8.1V/9.0V)
- 溫度範圍-40℃至 65℃ 濕度範圍: ≤90%
- 符合 RoHS 指令/無爆炸危險
- Moisture proof (5.5V/6.0V/7.5V/8.1V/9.0V)
- Temperature range -40℃ to 65℃ Humidity range: ≤90%
- Compliant with RoHS Directive / No explosion hazard



規格表 Specification Table

Operating temperature 工作溫度	-40℃ to +65℃
Capacitance range 容量範圍	0.22F to 5.0F
Capacitance tolerance 容量誤差	-20%~+50%; +/-20%
Rated voltage 額定電壓	5.5 V/6.0V/7.5/8.1 V/9.0 V
Temperature characteristics 溫度特性	Capacitance change: Within ±30% of initial measured value at +25℃ Internal resistance: Within ±200% of initial measured value at +25℃ 電容變化: +25℃ 時初始測量值的 ±30% 以內 內部電阻: +25℃ 時初始測量值的 ±200% 以內
High temperature load time 高溫負荷特性	After 65℃ / H:90% 1500 hours Capacitance change: ±30% of initial rated value Internal resistance: Within 2 times of initial specified value 65℃ / H:90% 1500 小時後: 電容變化: 初始額定值的±30%; 內阻: 初始規定值的 2 倍以內
Projected cycle life (From rated voltage to 1/2 rated voltage at 25℃) 預計循環壽命 (從額定電壓到額定電壓的 1/2 25℃ 時的電壓)	After 500,000 cycles: Capacitance change: Within ±30 % of initial rated value Internal resistance: Within 2 times of initial specified value 500,000 次循環後: 電容變化: 初始額定值的±30%; 內阻: 初始規定值的 2 倍以內
Humidity characteristic 濕度特性	Relative humidity: 90%~95% /Duration of testing:240 hrs /Temperature:40±2℃ Capacitance change: Within ±30 % of initial rated value Internal resistance: Within 2 times of initial specified value 相對濕度: 90%~95% /測試時間: 240 小時 /溫度: 40±2℃ 電容變化: 初始額定值的±30%以內; 內阻: 初始規定值的 2 倍以內
Vibration resistance 抗振性	Amplitude:1.5mm /Frequency:10~55Hz /Duration of testing:6 hrs Capacitance change: Within ±30 % of initial rated value Internal resistance: Within 2 times of initial specified value 幅度: 1.5mm /頻率: 10~55Hz /測試時間: 6 小時 電容變化: 初始額定值的±30%以內; 內阻: 初始規定值的 2 倍以內
Shelf life 儲存壽命	After 2 years at 25℃ without load, the capacitor shall meet the specified endurance limits. 在 25℃ 無負載條件下工作 2 年後, 電容器應達到規定的耐久性極限。

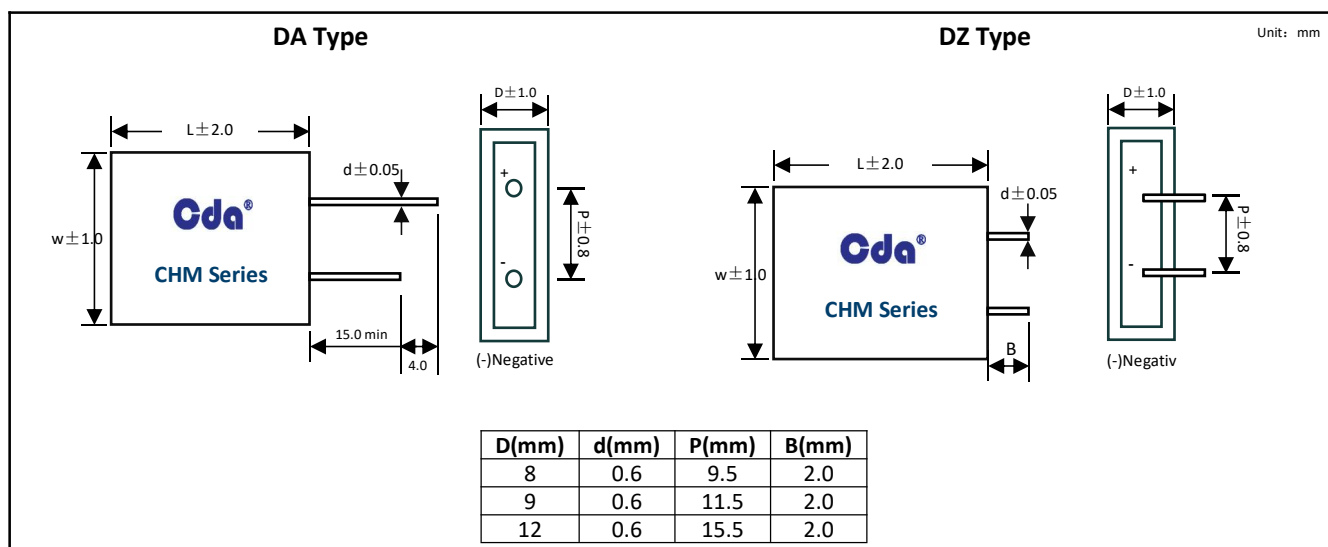
工作溫度範圍 Operating Temperature Range

Operating temperature 工作溫度	5.5V Series		6.0V Series		7.5V Series		8.1V Series		9.0V Series	
	Balanced 均衡	Unbalanced 無均衡	Balanced 均衡	Unbalanced 無均衡	Balanced 均衡	Unbalanced 無均衡	Balanced 均衡	Unbalanced 無均衡	Balanced 均衡	Unbalanced 無均衡
-40℃~+65℃	5.5V	5.1V	6.0V	5.6V	7.5V	7.1V	8.1V	7.7V	9.0V	8.6V
-40℃~+85℃	4.6V	4.2V	5.2V	4.8V	6.6V	6.2V	7.3V	6.9V	/	/

*通過適當的電壓降額工作溫度可擴展至 85℃

*with appropriate voltage derating operating temperature can be extended to 85°

尺寸圖(5.5V/6.0V)Dimensions



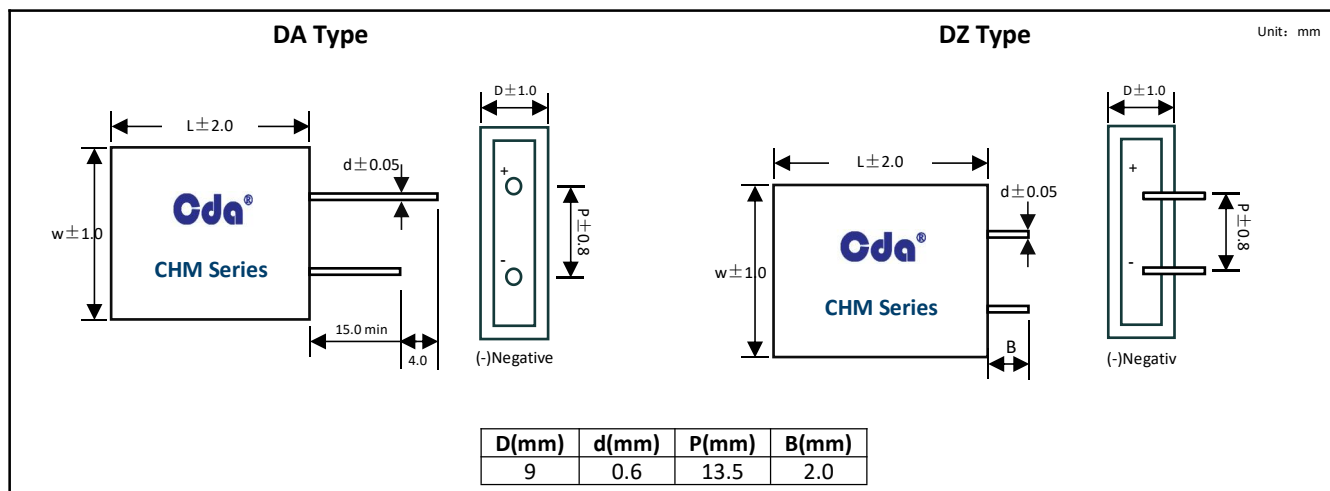
型號列表 Model list

Part Number 產品編碼	Working Voltage 工作電壓 (V DC)	Rated Cap. 額定容量 (F)	Dimensions 尺寸 (mm)	Max.ESR 內阻		Maximum Leakage 最大漏電 (72hrs/mA)	Maximum Peak Current 峰值電流 (A)
			D x L	ESRAC (1kHz/mΩ)	ESRDC (mΩ)		
CHM-5R5L224R-TW	5.5	0.22	15X8X16	700	1400	0.003	0.37
CHM-5R5L334R-TW		0.33	18X9X16	600	1200	0.003	0.51
CHM-5R5L474R-TW		0.47	18X9X16	380	760	0.003	0.75
CHM-5R5L474R-TWX		0.47	15X8X16	500	800	0.003	0.61
CHM-5R5L105R-TW		1.0	18X9X20	250	500	0.007	1.59
CHM-5R5L155R-TW		1.5	18X9X24	200	400	0.012	2.24
CHM-5R5L255R-TW		2.5	23X12X25	180	360	0.020	3.45
CHM-5R5L355R-TW		3.5	23X12X25	160	320	0.023	3.65
CHM-5R5L505R-TW		5.0	23X12X25	150	300	0.028	4.21
CHM-6R0L224R-TW	6.0	0.22	15X8X16	700	1400	0.003	0.42
CHM-6R0L334R-TW		0.33	18X9X16	600	1200	0.003	0.58
CHM-6R0L474R-TW		0.47	18X9X16	380	750	0.007	0.78
CHM-6R0L474R-TWX		0.47	15X8X16	500	850	0.003	0.69
CHM-6R0L105R-TW		1.0	18X9X20	250	500	0.012	1.74
CHM-6R0L155R-TW		1.5	18X9X24	200	400	0.018	2.45
CHM-6R0L255R-TW		2.5	23X12X25	180	360	0.020	3.59
CHM-6R0L355R-TW		3.5	23X12X25	160	320	0.023	3.88
CHM-6R0L505R-TW		5.0	23X12X25	150	300	0.028	6.52

*注意：添加被動平衡，可根據要求提供其它選項，客戶可以根據實際應用進行選擇。

*Note: Adds passive balance. Balance options can be provided upon request. Customers can choose according to the application.

尺寸圖(7.5V/8.1/9.0V)Dimensions



型號列表 Model list

產品編碼 Part Number	Working Voltage 工作電壓 (V DC)	Rated Cap. 額定容量 (F)	Dimensions 尺寸 (mm)	Max.ESR 內阻		Maximum Leakage 最大漏電 (72hrs/mA)	Maximum Peak Current 峰值電流 (A)
			D x L	ESRAC (1kHz/mΩ)	ESRDC (mΩ)		
CHM-7R5L334R-TW	7.5	0.33	26X9X16	600	1200	0.006	0.75
CHM-7R5L604R-TWX		0.6	26X9X16	460	920	0.008	1.04
CHM-7R5L604R-TW		0.6	26X9X20	350	700	0.008	1.59
CHM-7R5L105R-TW		1	26X9X24	285	570	0.012	2.32
CHM-8R1L334R-TW	8.1	0.33	26X9X16	500	950	0.003	0.69
CHM-8R1L604R-TW		0.6	26X9X20	400	800	0.070	1.47
CHM-8R1L105R-TW		1.0	26X9X24	350	700	0.012	2.20
CHM-9R0L334R-TW	9.0	0.33	26X9X16	500	950	0.007	0.77
CHM-9R0L604R-TW		0.6	26X9X20	400	800	0.012	1.64
CHM-9R0L105R-TW		1.0	26X9X24	350	700	0.018	2.53
CHM-9R0L155R-TW		1.5	26X9X24	300	600	0.014	3.13

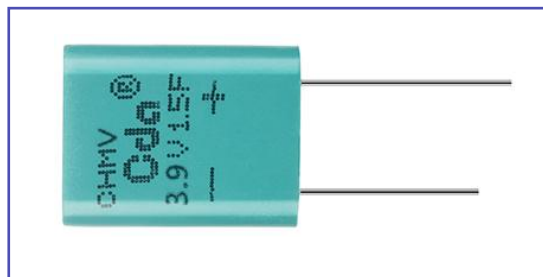
*注意：添加被動平衡，可根據要求提供其它選項，客戶可以根據實際應用進行選擇。

*Note: Adds passive balance. Balance options can be provided upon request. Customers can choose according to the application.

CHMV series

防潮型
Moisture proof

- 防潮最佳品 (3.9V) 65°C/5000h 確保
- 溫度範圍 -40°C 至 65°C 濕度範圍: ≤90%
- 符合 RoHS 指令/無爆炸危險
- Moisture proof (3.9V) 65°C/5000h guaranteed
- Temperature range -40°C to 65°C Humidity range: ≤90%
- Compliant with RoHS Directive / No explosion hazard



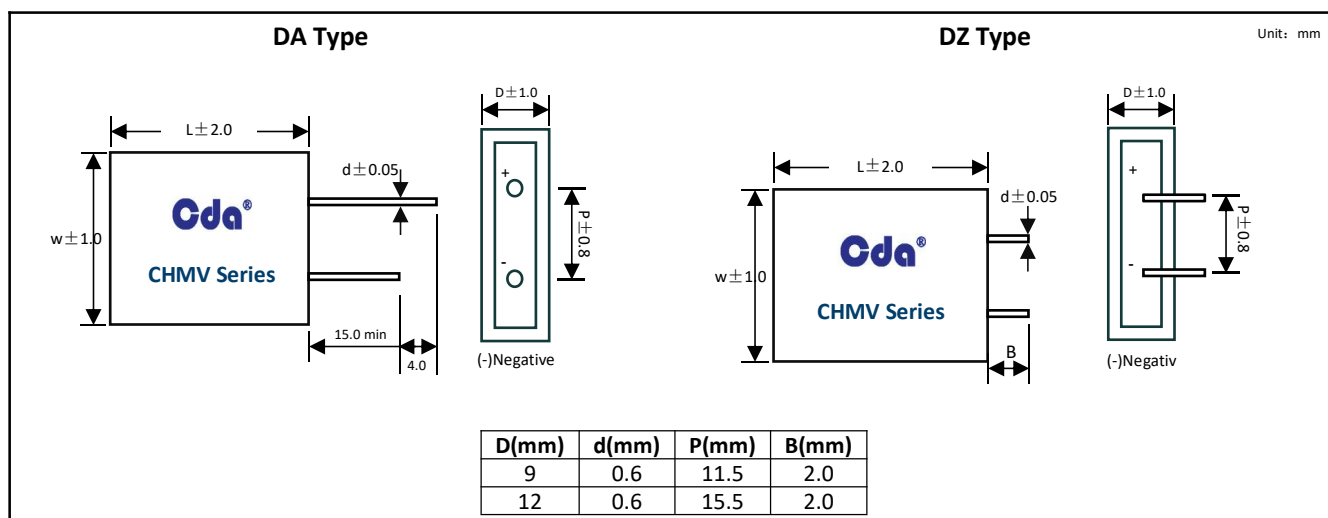
規格表 Specification Table

Operating temperature 工作溫度	-40°C to +65°C
Capacitance range 容量範圍	0.47F to 5.0F
Capacitance tolerance 容量誤差	-20%~+50%; +0%~+100%; -10%~+30%
Rated voltage 額定電壓	3.9 V
Surge voltage 沖擊電壓	5.2 V
Temperature characteristics 溫度特性	Capacitance change: Within ±30% of initial measured value at +25°C Internal resistance: Within ±500% of initial measured value at +25°C 電容變化: +25°C 時初始測量值的 ±30% 以內 內部電阻: +25°C 時初始測量值的 ±500% 以內
High temperature load time 高溫負荷特性	After 65°C 5000 hours (at 3.9V): Capacitance change: ±30% of initial rated value Internal resistance: Within 2 times of initial specified value 65°C 5000 小時後 (at 3.9V): 電容變化: 初始額定值的 ±30%; 內阻: 初始規定值的 2 倍以內
Projected cycle life (From rated voltage to 1/2 rated voltage at 25°C) 預計循環壽命 (從額定電壓到額定電壓的 1/2 25°C 時的電壓)	After 500,000 cycles: Capacitance change: Within ±30 % of initial rated value Internal resistance: Within 2 times of initial specified value 500,000 次循環後: 電容變化: 初始額定值的 ±30%; 內阻: 初始規定值的 2 倍以內
Humidity characteristic 濕度特性	Relative humidity: 90%~95% /Duration of testing: 240 hrs /Temperature: 40±2°C Capacitance change: Within ±30 % of initial rated value Internal resistance: Within 2 times of initial specified value 相對濕度: 90%~95% /測試時間: 240 小時 /溫度: 40±2°C 電容變化: 初始額定值的 ±30% 以內; 內阻: 初始規定值的 2 倍以內
Vibration resistance 抗振性	Amplitude: 1.5mm /Frequency: 10~55Hz /Duration of testing: 6 hrs Capacitance change: Within ±30 % of initial rated value Internal resistance: Within 2 times of initial specified value 幅度: 1.5mm /頻率: 10~55Hz /測試時間: 6 小時 電容變化: 初始額定值的 ±30% 以內; 內阻: 初始規定值的 2 倍以內
Shelf life 儲存壽命	After 15 years at 25°C without load, the capacitor shall meet the specified endurance limits. 在 25°C 無負載條件下工作 15 年後, 電容器應達到規定的耐久性極限。

*通過適當的電壓降額工作溫度可擴展至 85°C

*with appropriate voltage derating operating temperature can be extended to 85°

尺寸圖(3.9V)Dimensions



型號列表 Model list

產品編碼 Part Number	Working Voltage 工作電壓 (V DC)	Rated Cap. 額定容量 (F)	Dimensions 尺寸 (mm)	Max.ESR 內阻		Maximum Leakage 最大漏電 (72hrs/mA)	Maximum Peak Current 峰值電流 (A)
			D x L	ESRAC (1kHz/mΩ)	ESRDC (mΩ)		
CHMV-3R9L474R-TW	3.9	0.47	18X9X16	380	760	0.47	0.70
CHMV-3R9L105R-TW		1.0	18X9X20	250	500	0.61	1.40
CHMV-3R9L155R-TW		1.5	18X9X24	200	400	0.74	2.02
CHMV-3R9L255R-TW		2.5	23X12X25	180	360	0.95	3.10
CHMV-3R9L305R-TW		3.0	23X12X25	170	340	0.97	3.49
CHMV-3R9L355R-TW		3.5	23X12X25	160	320	0.97	3.80
CHMV-3R9L505R-TW		5.0	23X12X25	150	300	1.20	5.82

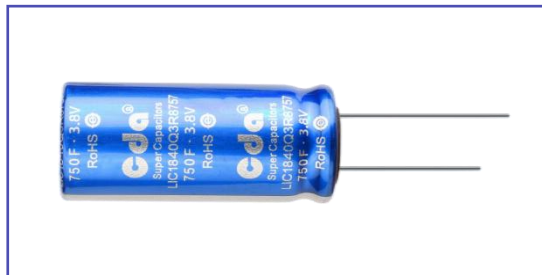
*注意：添加被動平衡，可根據要求提供其它選項，客戶可以根據實際應用進行選擇。

*Note: Adds passive balance. Balance options can be provided upon request. Customers can choose according to the application.

LIC series

功率型
Power type

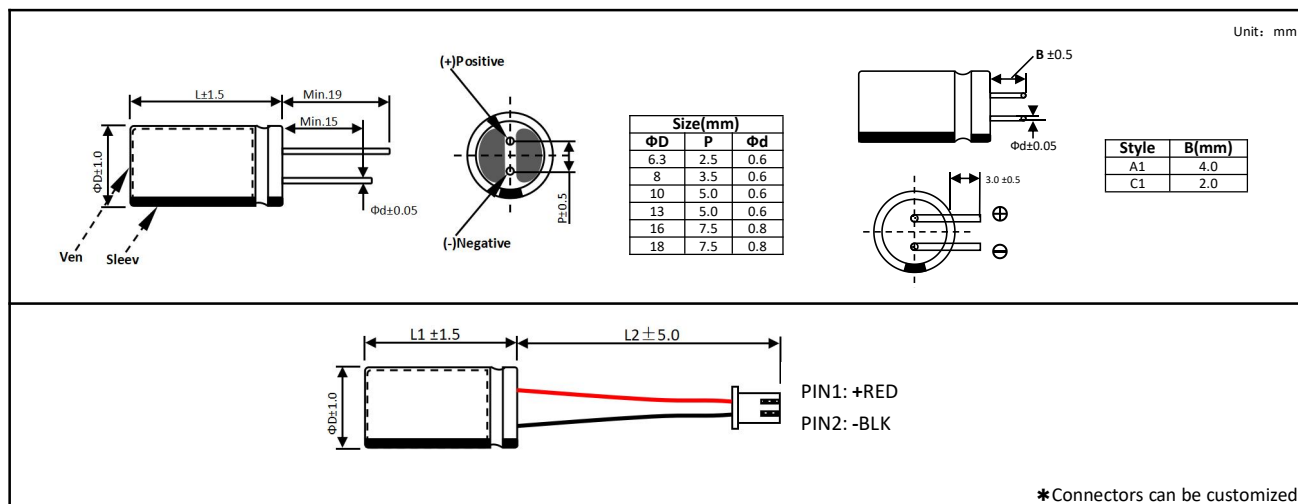
- 功率型/3.8V 高工作電壓（低自放電）
- 相比 EDLC, LIC 的能量密度高達 8 倍
- 符合 RoHS 指令/無爆炸危險
- Energy type /3.8V high working voltage (low self-discharge)
- Compared with EDLC, the energy density of LIC is up to 8 times
- RoHS directive compliant / No Explosion Hazard



規格表 Specification Table

Operating temperature 工作溫度	-20°C to +65°C @ 3.8V -20°C to +85°C @ 3.5V
Capacitance range 容量範圍	10F to 750F
Capacitance tolerance 容量誤差	-10%~+30%(+25°C); -20%~+80%(+25°C)
Rated voltage 額定電壓	3.8 V DC
Minimum rated voltage 最低額定電壓	2.5 V DC
Surge voltage 浪湧電壓	4.2 V DC
Temperature characteristics 溫度特性	Capacitance change: Within $\pm 50\%$ of initial measured value at +25°C Internal resistance: Within $\pm 800\%$ of initial measured value at +25°C 電容變化: +25°C 時初始測量值的 $\pm 50\%$ 以內 內部電阻: +25°C 時初始測量值的 $\pm 800\%$ 以內
High temperature load time 高溫負荷特性	After 85°C 1000 hours (at: 3.5V) Capacitance change: $\pm 30\%$ of initial rated value Internal resistance: Within 4 times of initial specified value 85°C 1000 小時後 (at: 3.5V): 電容變化: 初始額定值的 $\pm 30\%$; 內阻: 初始規定值的 4 倍以內
Projected cycle life (From rated voltage to 1/2 rated voltage at 25°C) 預計循環壽命 (從額定電壓到額定電壓的 1/2 25°C 時的電壓)	After 50,000 cycles: Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 50,000 次循環後: 電容變化: 初始額定值的 $\pm 30\%$; 內阻: 初始規定值的 2 倍以內
Shelf life 儲存壽命	After 2 years at 25°C without load, the capacitor shall meet the specified endurance limits. 在 25°C 無負載條件下工作 2 年後, 電容器應達到規定的耐久性極限。

尺寸圖 Dimensions



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Please understand that our company may change the design and specifications without prior notice. Please be sure to ask our company for relevant technical specifications before purchasing and using our products. If you have any doubts about the safety of the product, please contact our company immediately.

型號列表 Model list

Part Number 產品編碼	Dimensions 尺寸 (mm)		Rated Cap. 額定容量 (F)	3.8V-2.5V Battery Cap. 電池容量 (mAh)	ESR AC 內阻 (mΩ) (1 KHz)	Leakage Current 漏電電流 (72hrs/mA)	Rated Current 額定電流 (A)	Max Current 最大電流 (A)	Weight 重量 (gram)
	D	L							
LIC0613Q3R8106	6.3	13	10	3.5	1500	0.001	0.05	0.3	0.8
LIC0813Q3R8106	8	13	10	3.6	510	0.001	0.05	0.5	1.5
LIC0813Q3R8206	8	13	20	10	500	0.001	0.1	0.5	1.5
LIC1013Q3R8256	10	13	25	12	280	0.001	0.15	1.0	2.65
LIC1013Q3R8306	10	13	30	13.5	260	0.001	0.15	1.0	2.65
LIC0825Q3R8306	8	25	30	18	200	0.002	0.3	2.0	3.5
LIC0820Q3R8256	8	20	25	12	300	0.002	0.2	1.5	2.0
LIC0820Q3R8406	8	20	40	15	250	0.002	0.22	1.7	2.0
LIC0825Q3R8506	8	25	50	18	200	0.002	0.2	1.0	2.7
LIC1313Q3R8706	13	13	70	27	115	0.002	0.3	2.0	3.5
LIC1020Q3R8806	10	20	80	30	110	0.002	0.35	3.0	3.0
LIC0825Q3R8906	8	25	90	27	115	0.002	0.3	2.0	2.5
LIC0825Q3R8107	8	25	100	36	100	0.003	0.6	3.0	2.7
LIC1030Q3R8107	10	30	100	36	100	0.003	0.6	5.0	6.0
LIC1030Q3R8127	10	30	120	45	95	0.003	0.6	5.0	5.0
LIC1320Q3R8127	13	20	120	45	95	0.003	0.6	5.0	5.0
LIC1335Q3R8257	13	35	250	80	50	0.005	1.1	10.0	8.0
LIC1620Q3R8257	16	20	250	80	50	0.005	1.1	10.0	8.0
LIC1620Q3R8277	16	20	270	85	50	0.013	2.0	10.0	8.5
LIC1640Q3R8507	16	40	500	200	40	0.015	2.25	25.0	15.0
LIC1840Q3R8507	18	40	500	200	40	0.015	2.25	30.0	20.0
LIC1840Q3R8757	18	40	750	300	30	0.023	3.0	30.0	20.0

*通過適當的電壓降額工作溫度可擴展至 85°C

*with appropriate voltage derating operating temperature can be extended to 85°C

应用方向 Application

智能三表、ETC、車載後備電源、攝像頭、電子煙、通訊設備、智能家居、互聯網數據存儲、傳真機、並聯鋰離子電池電量補償、無線滑鼠、路燈、醫療設備、工業感測器、工業設備備用電源主電源等等。

Intelligent three-meter, ETC, vehicle backup power supply, camera, electronic cigarette, communication equipment, smart home, Internet data storage, fax machine, parallel lithium-ion battery power compensation, wireless mouse, road lights, medical equipment, industrial sensors, Industrial Apparatus Power Backup Main Power Source.



LIB series

能量型
energy type

- 高能量型/4.0V 高工作電壓（低自放電）
- 相比 EDLC, LIC 的能量密度高達 10 倍
- 符合 RoHS 指令/無爆炸危險
- High energy /4.0V high working voltage (low self-discharge)
- Compared with EDLC, the energy density of LIC is up to 10 times
- RoHS directive compliant / No Explosion Hazard

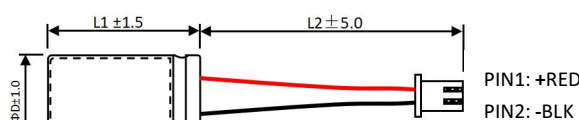
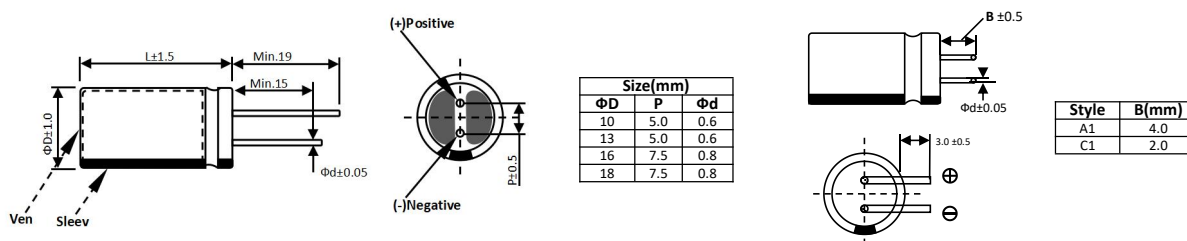


規格表 Specification Table

Operating temperature 工作溫度	-40°C to +65°C @ 4.0V -40°C to +85°C @ 3.5V
Capacitance range 容量範圍	200F to 1100F
Capacitance tolerance 容量誤差	-10%~+30%(+25°C); -20%~+80%(+25°C)
Rated voltage 額定電壓	4.0 V DC
Minimum rated voltage 最低額定電壓	2.5 V DC
Surge voltage 浪湧電壓	4.2 V DC
Temperature characteristics 溫度特性	Capacitance change: Within $\pm 50\%$ of initial measured value at +25°C Internal resistance: Within $\pm 800\%$ of initial measured value at +25°C 電容變化: +25°C 時初始測量值的 $\pm 50\%$ 以內 內部電阻: +25°C 時初始測量值的 $\pm 800\%$ 以內
High temperature load time 高溫負荷特性	After 85°C 1000 hours (at: 3.5V) Capacitance change: $\pm 30\%$ of initial rated value Internal resistance: Within 4 times of initial specified value 85°C 1000 小時後 (at: 3.5V): 電容變化: 初始額定值的 $\pm 30\%$; 內阻: 初始規定值的 4 倍以內
Projected cycle life (From rated voltage to 1/2 rated voltage at 25°C) 預計循環壽命 (從額定電壓到額定電壓的 1/2 25°C 時的電壓)	After 30,000 cycles: Capacitance change: Within $\pm 30\%$ of initial rated value Internal resistance: Within 2 times of initial specified value 30,000 次循環後: 電容變化: 初始額定值的 $\pm 30\%$; 內阻: 初始規定值的 2 倍以內
Shelf life 儲存壽命	After 2 years at 25°C without load, the capacitor shall meet the specified endurance limits. 在 25°C 無負載條件下工作 2 年後, 電容器應達到規定的耐久性極限。

尺寸圖 Dimensions

Unit: mm



*Connectors can be customized

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型號列表 Model list

Part Number 產品編碼	Dimensions 尺寸 (mm)		Rated Cap. 額定容量 (F)	3.8V-2.5V Battery Cap. 電池容量 (mAh)	ESR AC 內阻 (mΩ) (1 KHz)	Leakage Current 漏電電流 (72hrs/mA)	Rated Current 額定電流 (A)	Max Current 最大電流 (A)	Weight 重量 (gram)
	D	L							
LIB1030Q4R0207	10	30	200	90	130	0.003	0.4	4.0	6.0
LIB1320Q4R0227	13	20	220	100	120	0.003	1.0	5.0	5.0
LIB1330Q4R0357	13	30	350	150	100	0.004	1.5	20.0	8.0
LIB1340Q4R0507	13	40	500	200	70	0.005	4.0	28.0	8.0
LIB1620Q4R0407	16	20	400	160	70	0.015	2.0	15.0	8.5
LIB1840Q4R0118	18	40	1100	450	65	0.023	6.0	40.0	20.0

*通過適當的電壓降額工作溫度可擴展至 85°C

*with appropriate voltage derating operating temperature can be extended to 85°C

应用方向 Application

智能三表、ETC、車載後備電源、攝像頭、電子煙、通訊設備、智能家居、互聯網數據存儲、傳真機、並聯鋰離子電池電量補償、無線滑鼠、路燈、醫療設備、工業感測器、工業設備備用電源主電源等等。

Intelligent three-meter, ETC, vehicle backup power supply, camera, electronic cigarette, communication equipment, smart home, Internet data storage, fax machine, parallel lithium-ion battery power compensation, wireless mouse, road lights, medical equipment, industrial sensors, Industrial Apparatus Power Backup Main Power Source.



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☐ 工廠

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☐ 中國區域（China）

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完全使用事項

Complete use matters

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3. 關於描述內容，規格和尺寸如有改進，恕不另行通知。請下單時確認。如果您對所列內容有任何疑問，請聯繫我們或代理。
3. Regarding the contents of the description, specifications and dimensions may be changed without notice for improvement. Please confirm when ordering. If you have any questions about what is listed, please contact us or an agent.
4. 本目錄中記載的項目截至 2022 年 12 月。
4. The items recorded in this catalog are as of December 2022.