

PET电解电容 47UF/35V

产品名称	PET电解电容 47UF/35V
公司名称	东莞市浩银电子科技有限公司
价格	面议
规格参数	品牌: 型号:47UF/35V 介质材料:钽电解
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产品详情

鋁質電解電容器使用須知

precautions in use aluminum electrolytic capacitors

1.dc electrolytic capacitors used for dc applications only polarities are madewith “ - ” and are indicated on the side of wire/terminal. to avoid capacitors exploding irregularly we have developed “ case vent ” whose available diameter is 8 mm and greater.

直流電解電容器只能使用在直流電路上,其極性必須標明在適當之位置或在導針/端子之旁邊,凡是電容器直徑在8 (含8)以上者,一律加設鋁殼防爆線.

2.it is recommended at least 3mm of space around the vent. if such space is not provided, the vent will not operate completely.

有防爆孔設計之電解電容器其使用時防爆孔側應與其他機構保持最少3 mm以上之空間距離,如此條件不能滿足的話,防爆孔將無法正常運作.

3.regular electrolytic capacitors has polarity. reverse voltage causes short circuit breakage of the capacitors or leakage of electrolyte. non-polar capacitors can be used for both ac or dc circuits. where the polarity in a circuit sometimes reversed or unknown, abi-polar capacitors should be used.

鋁電解電容器一般是有極性的,極性反接是造成鋁電解電容器短路損壞及漏液的原因,而無極性(或雙極性)電解電容器可使用在交流或直流電路上.因此在無法辨識電氣回路上之極性或使用於有極性變換設計之回路時,請選用無極性電解電容器.

4. do not apply over voltage continuously. when over voltage is applied to the capacitors, leakage current increase drastically. applied working voltage to capacitors should not exceed the rated working voltage of capacitors.

請勿連續施加過電壓。當電壓過載時電解電容器的漏電流會急速增加,所以電解電容器之工作電壓不應超過額定值(標示電壓)。

5. frequent and quick charge/discharge generates heat inside the capacitors, causing increase of leakage current, decrease of capacitance, or breakage occasionally. consult us for assistance in this application.

經常及快速的充放電將使電容器之內溫異常上升,使漏電流增加、容量降低,有時還會造成產品之損壞,如對充放電特性有特殊要求時請與敝廠人員洽談。

6. do not apply a ripple current exceeding the rated maximum ripple current. applying too much ripple current to the capacitors causes great heat generation, invites deterioration of properties of causes breakage. please consult factory if ripple current exceeds the specified limit.

請勿施加超過額定最高紋波電流容許值以上之紋波電流。施加了過大紋波電流之電解電容器的內溫將迅速增加,引起電解電容器電氣特性劣化及破損,如有需要施加額定值以上之紋波電流等要求時,請與敝廠人員洽談。

7. conversion factor of ripple current vs. frequency & temperature, please see under table.

紋波電流與頻率、溫度之換算請參考下表:

frequency (頻率):

temperature (溫度):

cap(μ f) \ \ hz	50(60)	120	400	1k	10k	50~100k	temperature()	45	60	70	85
cap 10	0.8	1.0	1.30	1.45	1.65	1.70	conversion factor	2.10	1.90	1.65	1.40
10<cap 100	0.8	1.0	1.23	1.36	1.48	1.53		1.80	1.50	1.30	1.00
100<cap 1000	0.8	1.0	1.16	1.25	1.35	1.38					
1000<cap	0.8	1.0	1.11	1.17	1.25	1.28					

8. the capacitance tolerance and d.f should be tested at 120hz +20 ,the leakage current to be measured at +20 ,with rated working voltage applied in specified time.

靜電容量及損失角(df值)之測定條件為120hz,+20 ,洩漏電流值之測定條件為+20 ,印加額定電壓及時間後測定。

9. when the capacitors is stored for a long time without applying voltage, leakage current tends to increase. this returns to normal by applying the rated voltage to the capacitors before use. it is recommended to apply d.c working voltage to the capacitors for 30 minutes through 1k of protective series resistor, if it is stored for more than 6 months. the capacitors should he stored at a normal temperature and humidity. please store capacitors away from high temperature, high humidity and direct sunshine.

當電解電容器經過了長時間之放置後,通常其漏電流有增大之傾向.因此在使用經過長時間放置後之電解電容器以前,需先施加額定電壓使其電氣特性回復正常;如儲存時間長於6個月以上時,請串排1k 之保護電阻後,使其持續負載額定工作電壓30分鐘.另外電解電容器應儲存于常溫及常濕之環境下,應避免保存在高溫

、高濕、日光直射等的條件下.

10.do not use the capacitors over the max operating temperature. life time of the capacitors depends on the environmental temperature. generally, life time is doubled by decreasing each temperature 10 . use temperature as low as possible.

電解電容器之使用環境溫度請勿超出標示溫度範圍.電解電容器的壽命取決於使用的環境溫度,一般來說當電解電容之使用溫度每降低10 時,其壽命將變為兩倍,因此電解電容器應盡可能地在較低溫度下使用.

11.the formula for calculating expected life at lower operating temperatures life is as flows:

壽命加速計算,壽命與實際使用溫度間參考計算如: $l_2=l_1 \times$

l_1 :guaranteed life (h) at temperature t_1 () 額定溫度下的壽命(h)

l_2 :expected life (h) at temperature t_2 () 實際使用溫度下的預期壽命(h)

t_1 :maximum operating temperature () 最高額定使用溫度+施加額定紋波電流產生的溫度()

t_2 :actua operating temperature, ambient temperature+ temperature rise due to ripple current heating ()實際使用環境溫度+實際施加紋波電流產生的溫度.

expected life estimate quick reference guide壽命預測圖

85	2000h
105	1000h
105	2000h
105	5000h
125	2000h

12. improper soldering may shrink or break the insulating sleeve and/or damage the internal element as terminals and lead wires conduct heat into the capacitors. avoid too high a soldering temperature and/or too long a soldering time. soldering irons should be kept away from the vinyl sleeve of capacitors to avoid excessive heat or damage to the sleeve. if wave soldering process is used, soldering temperature should never exceed 300 for 5 seconds.

不適當的焊錫溫度及時間可能造成表面膠管之異常收縮破裂,有時高溫也會藉由導針及端子導熱至素子內部,對產品造成不良影響,因此須儘量避免過高溫度及過長時間之焊錫.電烙鐵應與電解電容器塑膠套管保持適當距離,以防止遇熱造成膠套破裂.電解電容器經波焊錫之制程,浸焊時其焊錫槽之溫度絕對不容許超過300 ,時間在5秒鐘內.

13. do not apply excessive force to the lead wire and the terminal. do not move the capacitors after soldering to the pc board, not carry the pc board by picking up the capacitors. for their strength, refer to jis-c-5141 and jis-c-5102.

請勿施加過度之外力於導針及端子上.請勿扳動已焊接於pc板上之電解電容器,更不要以電解電容器為施力點提起或移動整塊pc板.請參考jis-c-5141和jis-c-5102.

14. to ensure protection for sleeve marking and sealing materials on capacitors body, capacitors should never be washed or cleaned by halomethane agents or solvents such as trichloroethylene. the solvent may penetrate into the inside of capacitors, and may generate corrosion, xylene or acetone etc.

為了保護塑膠套管,印刷標示以及封口材料不被破壞,電解電容器不得鹵化化學藥品或類似溶劑,作為電解電容器洗滌之用,且溶劑有可能滲進電解電容器內部引起腐蝕,如三氯乙烯,二甲苯類或酮類等.

15. north latitude products meet or exceed quality standards specified by jis-c-5141w.

本公司一般規格之電容器,其品質依照jis-c-5141w標準.

16. north latitude capacitors comply with the reliability requirements set forth by jis-c-5102.

本公司之電容器信賴性試驗方法,依據jis-c-5102標準.

17. none of ozone depleting chemicals (odc) under the montreal protocol is used in manufacturing process of north latitude electronic co., ltd.

本公司依蒙特利爾協議書之規定,於生產過程中不使用破壞臭氧層之藥品.

18. ordering must know:

訂貨須知

customer order catalogue inside row capacitor product hour, please make sure the product line name ordered, and provide the detailed list. when your usage request outrun catalogue inside row product parameter several, please contact with us, and provide the following data to technical personnel of our engineering in order to consider specialized design, make an effort satisfy your request. 客戶訂購目錄中所列電容器產品時,敬請確定所訂產品系列名稱,並提供清單.當您的使用要求超出了目錄中所列產品參數時,請與我們聯繫,並向我們的工程技術人員提供下列資料以便考慮專門設計,盡力滿足您的要求.

1) capacitance and the capacitance tolerance 容量和容量允許偏差

2) operation temperature range 使用溫度範圍

- 3) rated working voltage range (working voltage) 額定電壓(工作電壓)
- 4) impedance and the ripple current (measure the frequency) 阻抗和紋波電流(測量頻率)
- 5) construction form and the extreme limit size 結構形式和極限尺寸

本产品的品牌是HYNIX/海力士，型号是47UF/35V，介质材料是铝电解，应用范围是滤波，外形是圆柱形，功率特性是小功率，频率特性是低频，调节方式是固定，引线类型是径向引出线，允许偏差是 ± 10 （%），耐压值是35（V），标称容量是47（uF），额定电压是35（V），温度系数是105