

YIC

使用說明 (Processing Instructions)

下面的說明和資訊供用戶正確理解和使用我們公司的石英晶體系列產品，預防不當的加工方式對石英晶體的損壞，確保用戶設備的可靠性。

The following instructions and information are provided for the purpose of having the user understand the proper way to process our crystal products to prevent problems prior to use and enhance the reliability of the equipment to which they are applied.

PROCESSING INSTRUCTIONS

■ 石英晶體意外跌落 (When dropped by mistake)

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設計和制造的石英晶體本身具有耐衝擊能力,但是當石英晶體元件經受劇烈的機械衝擊,如跌落到地板上或安裝期間劇烈震動時,在使用之前需要進行電性能確認

The crystal units are designed and manufactured to resist physical shocks. However, when the crystal units are subjected to excessive impact such as being dropped onto the floor or giving shocks during processing, need to make sure its satisfactory performance before using it.

■ 焊接 (Soldering)

(1) 引綫型產品 (Lead Type products)

ⓐ 使用電烙鐵焊接時, 引綫應該在3秒內焊接完畢, 電烙鐵溫度不能高于300°C

Lead wires should be soldered within 3 seconds with the soldering iron heated to a temperature no higher than 300°C

使用浸錫方式焊接時, 引綫應該在10秒內焊接完畢, 焊錫溫度不能高于260°C, 並且注意不能將整個晶體浸錫。

ⓑ 推薦使用垂直安裝方式, 避免熱力直接傳導到晶體上

In solder-dip processing, the leads should be soldered within 10 seconds with a temperature no higher than 260°C. Mounting in upright is recommendable to prevent the heat conduction directly to the body of the crystal unit.

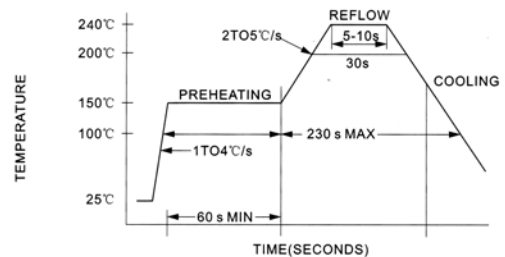
(2) DT-26,38,AT-39 SM-26B,26S,38A,39A

產品系列建議使用下面的過錫爐曲綫

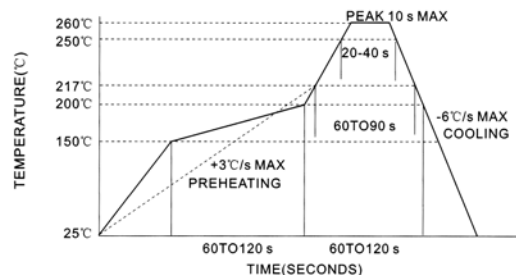
ⓐ The REFLOW SOLDERING PROFILE as below is recommended for DT-26,38,AT-39,SM-26B,26S,38A,39A families.

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● REFLOW SOLDERING PROFILE



● REFLOW SOLDERING PROFILE



ⓑ 49U,T,US,SL,SMT,SLMT,50U 產品系列建議

使用下面的過錫爐曲綫。

The REFLOW SOLDERING PROFILE as below is recommended for 49U,T,US,SL,SMT,SLMT,50U families.

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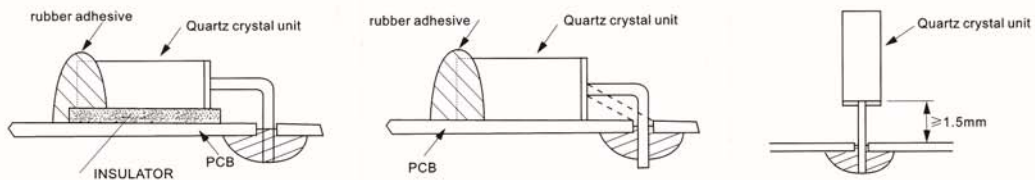
■ 石英晶體彎腳 (TO BEND THE LEAD of cylinder type products)

- 3
- ① 當圓柱狀晶體組件需要彎腳時，為了防止彎腳時造成密封玻璃體的破裂，從彎腳處到晶體基座底部距離應大於1.5mm。推薦距離3.0mm，並使用工裝夾具進行彎腳。
When the lead of cylinder type crystal units need to be bent, leave more than 1.5mm (3.0mm is recommendable) of lead from the case in order to prevent from any cracks of the hermetic sealing glass at the root of the lead, and use a jig to bend if possible.
 - ② 當圓柱狀晶體組件進行彎腳時，不要剝離引線的鍍層。
When bending the lead of cylinder type crystal units, do not scrape off the soldering plating from the lead surface.

■ 元件的安裝 (MOUNTING)

4.1 圓柱狀晶體元件的安裝 MOUNTING of cylinder type products

- ① 為了避免影響元件電性能或損壞元件，嚴禁將圓柱狀晶體元件外殼焊接在印制板上進行固定。推薦使用橡膠粘結劑進行固定。
Soldering the body of the cylinder type crystal units with PCB must be avoided due to deteriorate the characteristics or damage the products. Rubber adhesive is recommended.



- 4
- ② 當用手來彎曲引線時，請遵照下列方法。
When the lead needs to be bent by hand, please follow the instruction as below:
用手指捏住圓柱晶體的外殼；用鑷子夾住引線要彎曲的部位，該部位離晶體基座底部1.5mm以上（推薦3.0mm）；用鑷子夾住彎曲引線成90°，不要用力拉引線。用力拉引線可能造成引線根部的玻璃子破裂，而產生漏氣損壞元件電性能。
Hold the body of the cylinder type crystal unit in fingers; Pick at the part with tweezers, which you want to bend. There should be more than 1.5mm (3.0mm is recommended) from the body case; Bend the lead 90° by tweezers without pulling the lead strongly. If pulling the lead strongly may cause any cracks of hermetic sealing glass at the root of the lead and may cause the leakage and the characteristics to deteriorate.

4.2 SMD晶體元件的安裝 MOUNTING of SMD TYPE products

當使用自動安裝設備來裝配SMD晶體元件時，裝配之前要檢測自動安裝設備不會損壞元件。安裝和焊接晶體元件後，由於機械張力，分裂開整塊線路板產生的線路板的彎曲將造成焊接的脫離或晶體組件封裝的裂開。請確保晶體元件在線路板上的焊盤位置產生的焊接應力較小和分裂線路板對晶體元件產生的應力較小。

When using an automatic loading machine, please test and confirm to cause no damage to the crystal units before mounting. Bending the circuit board in the process of cleaving boards after mounting and soldering crystal units may cause peeling off the soldering or package cracks by mechanical stress. Please be sure that the layout of crystal products position is on the less stressed and the cleaving process is under less stressed for the crystal units.

■ 石英晶體元件的清洗 (CLEANING)

- 5
- ① 惡劣的超聲波清洗或超聲波焊接可能會影響和損壞石英晶體元件。如果您對晶體元件進行了超聲波清洗，請一定在使用前確認晶體元件是否受到了影響和損壞。
Crystal units may be affected and destroyed at worst by supersonic cleaning or supersonic welding. Please be sure to check if your cleaning and welding process affects any damage to crystal units before using.
 - ② 有些清洗液也可能造成晶體元件的損壞，請在使用清洗液前確認該清洗液是否適用
Some kinds of cleaning fluid may cause any damage to crystal units. Please be sure to check suitability of the cleaning fluid in advance.

■ 貯存 (STORAGE)

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- 石英晶體元件長時間貯存在高溫或高濕環境中，可能會影響頻率的穩定性或可焊性。請將晶體組件貯存在正常的溫度和濕度環境中，避免陽光直射和露水凝結，避免貯存6個月以上再使用，拆封後盡快裝配使用。
- Storage of crystal units under higher temperature or high humidity for a long term may affect frequency stability or solderability. Please store the crystal units under the normal temperature and humidity without exposing to direct sunlight and dew condensation, and avoid the storage of crystal units for more than 6 months, and mount them as soon as possible after unpacking.