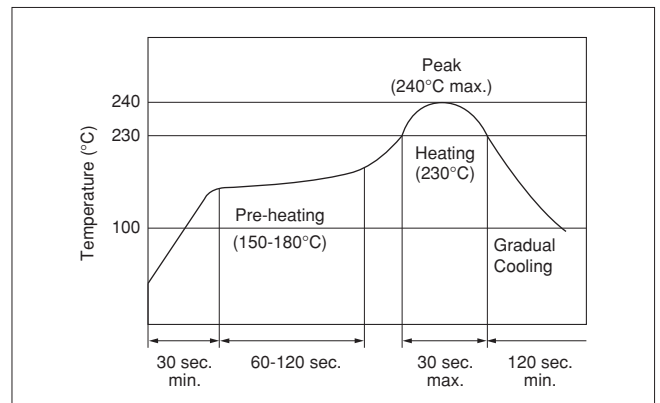


● Soldering and Mounting

1. Standard Reflow Soldering Conditions

(1) Reflow

Filter is soldered twice within the following temperature conditions.



(2) Soldering Iron

Filter is soldered at $+280 \pm 5^\circ\text{C}$ for 3.0 ± 0.5 seconds. The soldering iron should not touch the filter while soldering.

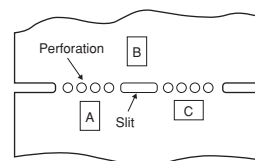
(3) Condition for Placement Machines

The component is recommended with placement machines that employ optical placement capabilities. The component might be damaged by excessive mechanical force. Please make sure that you have evaluated by using placement machines before going into mass production. Do not use placement machines that utilize mechanical positioning. Please contact Murata for details beforehand.

(4) Other

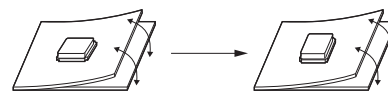
- (a) The component may be damaged if excess mechanical stress is applied to it mounted on the printed circuit board.
- (b) Design layout of components on the PC board to minimize the stress imposed on the warp or flexure of the board.
- (c) After installing components, if solder is excessively applied to the circuit board, mechanical stress will cause destruction resistance characteristics to degrade. To prevent this, be extremely careful in determining shape and dimension before designing the circuit board diagram.
- (d) When the positioning claws and pick-up nozzle are worn, the load is applied to the components while positioning is concentrated on positioning accuracy, etc. Careful checking and maintenance are necessary to prevent unexpected trouble.
- (e) When correcting components with a soldering iron, the tip of the soldering iron should not directly touch the component.
- (f) Do not use strong acidity flux, more than 0.2wt% chlorine content, in reflow soldering.

[Component Layout Close to Board]




Susceptibility to stress is in the order of : A>C>B

[Component Direction]



Place the component laterally to the direction in which stress acts.

Continued on the following page.

 Continued from the preceding page.

2. Wash

Do not clean or wash the component as it is not hermetically sealed.

3. Coating

In case of overcoating the component, conditions such as material of resin, cure temperature, and so on should be evaluated well.

● Storage and Operating Conditions

1. Product Storage Condition

Please store the products in a room where the temperature/humidity is stable, and avoid places where there are large temperature changes. Please store the products under the following conditions:

Temperature: -10 to + 40°C

Humidity: 15 to 85% R.H.

2. Expiration Date on Storage

Expiration date (shelf life) of the products is six months after delivery under the conditions of a sealed and unopened package. Please use the products within six months after delivery. If you store the products for a long time (more than six months), use carefully because solderability may be degraded due to storage under poor conditions.

Please confirm solderability and characteristics for the products regularly.

3. Notice on Product Storage

(1) Please do not store the products in a chemical atmosphere (Acids, Alkali, Bases, Organic gas, Sulfides and so on), because the characteristics may be reduced in quality and may be degraded in solderability due to storage in a chemical atmosphere.

(2) Please do not put the products directly on the floor without anything under them to avoid damp places and/or dusty places.

(3) Please do not store the products in places such as a damp heated place or any place exposed to direct sunlight or excessive vibration.

(4) Please use the products immediately after the package is opened, because the characteristics may be reduced in quality and/or be degraded in solderability due to storage under poor condition.

(5) Please do not drop the products to avoid cracking of ceramic element.

4. Other

Please be sure to consult with our sales representative or engineer whenever the products are to be used in conditions not listed above.

● Rating

The component may be damaged if excessive mechanical stress is applied.

● Handling

1. Accurate test circuit values are required to measure electrical characteristics. Miscorrelation may be caused if there is any deviation, especially stray capacitance, from the test circuit in the specification.
2. For safety purposes, connect the output of filters to the IF amplifier through a D.C. blocking capacitor. Avoid applying a direct current to the output of ceramic filters.