

■ **Notice (Soldering and mounting)**

1. **Standard PCB Design (Land Pattern and Dimensions):**

All the ground terminals should be connected to the ground patterns. Furthermore, the ground pattern should be provided between IN and OUT terminals. Please refer to the specifications for the standard land dimensions.

The recommended land pattern and dimensions is as Murata's standard. The characteristics of products may vary depending on the pattern drawing method, grounding method, land dimensions, land forming method of the NC terminals and the PCB material and thickness. Therefore, be sure to verify the characteristics in the actual set. When using non-standard lands, contact Murata beforehand.

2. **Soldering Conditions:**

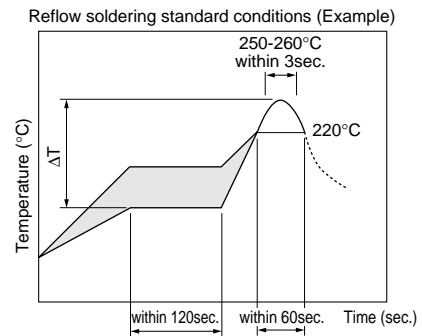
Carefully perform preheating so that the temperature difference ( $\Delta T$ ) between the solder and products surface should be in the following range. When products are immersed in solvent after mounting, pay special attention to maintain the temperature difference within 100°C. Soldering must be carried out by the above mentioned conditions to prevent products from damage. Contact Murata before use if concerning other soldering conditions.

Soldering method	Temperature
Soldering iron method	$\Delta T \leq 130^\circ\text{C}$
Reflow method	

● Soldering iron method conditions are indicated below.

Item	Kind of iron	
	Nichrome heater	Ceramics heater
Soldering iron wattage	$\leq 30\text{W}$	$\leq 18\text{W}$
Temperature of iron-tip	$\leq 280^\circ\text{C}$	$\leq 250^\circ\text{C}$

- Diameter of iron-tip :  $\phi 3.0$  mm max.
- Do not allow the iron-tip to directly touch the ceramic element.



Use rosin type flux or weakly active flux with a chlorine content of 0.2 wt % or less.

Amount of Solder Paste:

- Ensure that solder is applied smoothly to a minimum height of 0.2 to 0.5 mm at the end surface of the external electrodes. If too much or little solder is applied, there is high possibility that the mechanical strength will be insufficient, creating the variation of characteristics.