Notes on soldering

1. Type

HSOP-8Q package

2. Storage

The epoxy resin used in package absorbs moisture in air, and the absorbed moisture vaporizes and expands during mounting. When the absorbed moisture amount becomes large, package cracks may occur.
For this reason, storage in lower humidity environment is recommended.
Package adapted to the storage condition of the ambient temperature (Ta) of 5 to 30°C and relative humidity (RH) of 40 to 70%. This product is suitable for using it within one year.

3. Rinse

When rinse-free flux is applied, rinsing is not necessary. It may cause corrosion when residue of the active agents remained in the flux. Good selection of flux is indispensable to avoid corrosion.
Depending upon the use of the ultrasonic washing conditions, there is a possibility that the Quartz crystal is destroyed by the resonance.
Please be sure to check with your company when using it.

4. Resistance to soldering heat (Reflow soldering, Flow soldering and Soldering Iron)

4. 1 Reflow soldering

The temperature rise may be different in the resin and a terminal part due to the reflow soldering.
It is necessary to check the package surface temperature (resin) before setting the temperature profile.
Figure 1 shows the resistance to soldering heat condition for package (Reflow method).
Confirm the heat resistance of the package shown below. (Based on **JEDEC J-STD-020**)

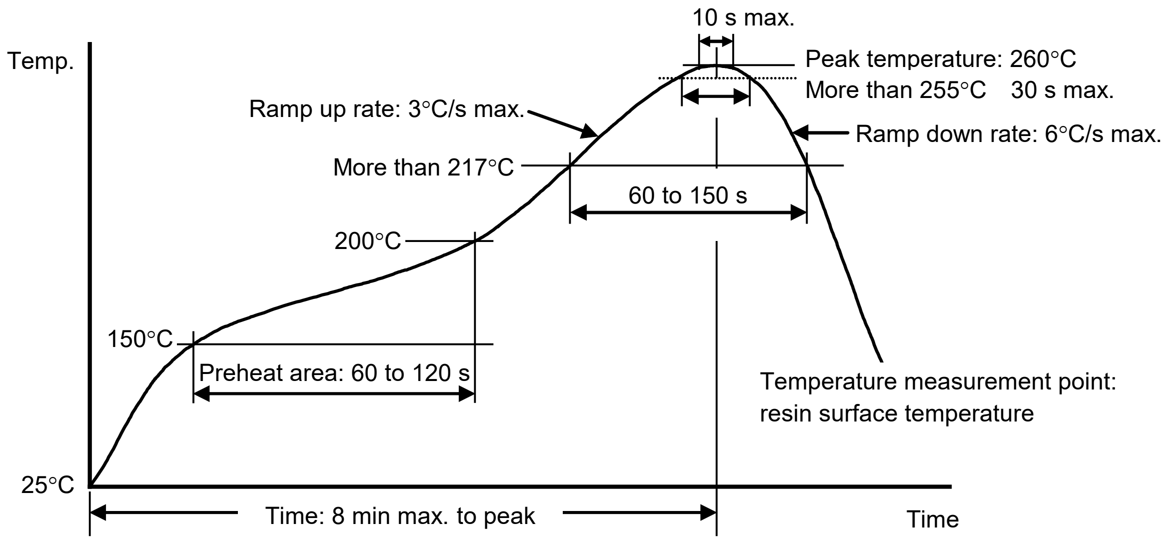

Figure 1 Resistance to soldering heat condition for package (Reflow method)

Number of maximum reflow cycles: Three times

4. 2 Flow soldering

Flow soldering gives larger thermal stress to the package compared to reflow. Preheating is indispensable to relax the thermal stress.
Figure 2 shows the resistance to soldering heat condition for package (Flow method).
Confirm the package of heat resistance in the following range.
The peak temperature of flow soldering at 260°C for 10 seconds or less.
(Preheating temperature and time are the reference value)

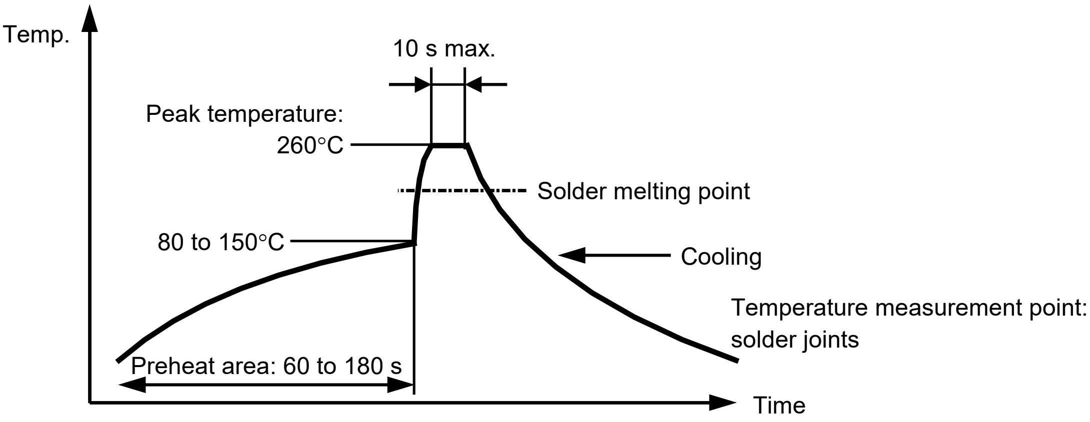

Figure 2 Resistance to soldering heat condition for package (Flow method)

Number of maximum flow cycles: Once
For the soldering quality of the package backside terminal and heat sink, please evaluate and judge as your company.

4. 3 Soldering Iron

When using a soldering iron or heating collet, you should observe the following precautions only to a terminal part.
Each terminal part
① Maintain the maximum temperature of the soldering iron at 380°C for 5 seconds or less.
② Number of maximum Iron cycles: Two times

5. Caution on heat sink at backside

Please do not use a heat sink as terminal.
The heat sink has different potentials depending on the product so that it may not work with wrong connection.
Use the heat sink in order to improve the package abilities of heat diffusion and mounting strength.

e.g. HSOP-8A

Bottom view