



EIC SEMICONDUCTOR COMPANY LIMITED

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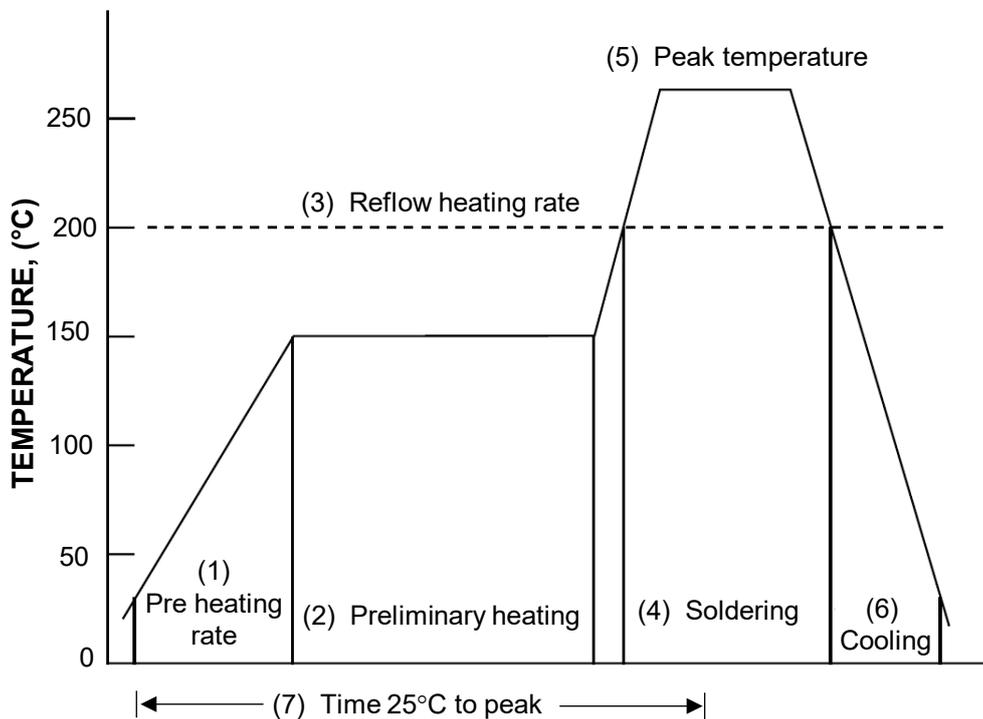
SOLDERING INSTRUCTIONS

• Recommended condition of soldering

Protection against overheating is essential when a device is being soldered. It is recommended, therefore, that connection terminals are left as long as possible, are soldered at the tip only, and that any heat generated is quickly conducted away. The time during which the specified maximum permissible device junction temperature is exceeded during the soldering operation should be as short as possible, (i.e., for silicon, 260 °C for 10 seconds. Avoid any force on the body or leads during or just after soldering. Do not correct the position of an already soldered device by pushing, pulling or twisting the body. Prevent fast cooling after soldering.

There are several methods in use to solder devices onto the substrate. There are three type in the following section.

1. Recommended Pb-free reflow soldering condition



• Recommendable condition of reflow soldering

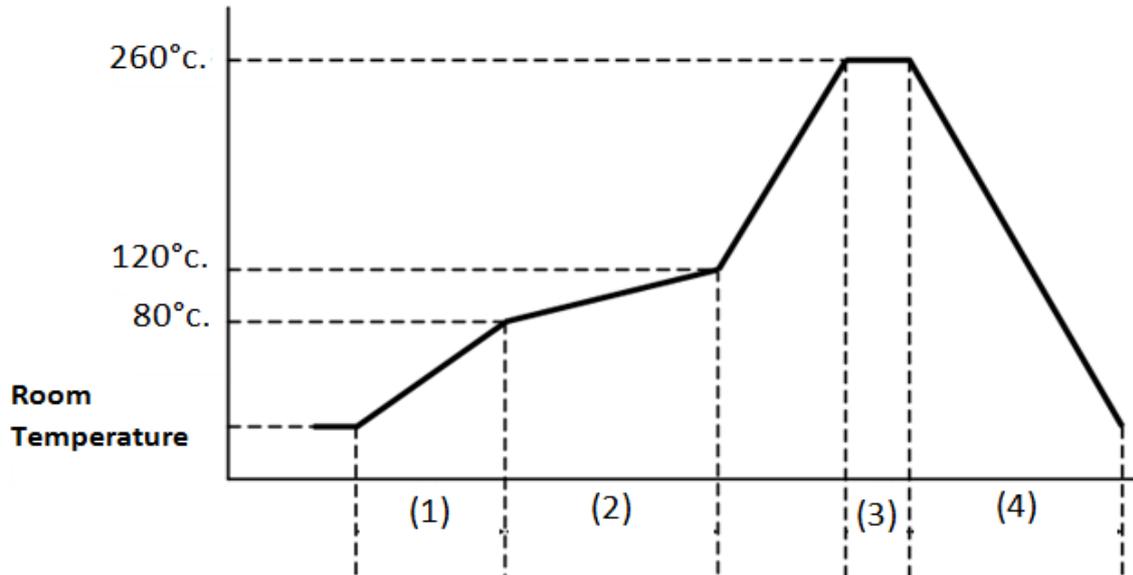
(1) Pre heating rate:	5 °C./sec. Max
(2) Preliminary heating:	150-200 °C, 60-120 sec.
(3) Reflow heating rate:	5 °C./sec. Max
(4) Soldering:	217 °C, 60-150 sec.
(5) Peak temperature:	255 to 260 °C, 10s Max.
(6) Cooling:	6 °C/sec. Max
(7) Time:	< 8 min



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2. Recommended Pb-free flow soldering condition



• Recommendable condition of flow soldering

- | | |
|--------------------------|------------------------|
| (1) Pre heating rate: | 1-7 °C./sec. |
| (2) Preliminary heating: | 80-120 °C, 60-120 sec. |
| (3) Peak temperature: | 260 °C.<10 sec. |
| (4) Cooling: | 1-7 °C./sec |

3. Recommended Pb-free hand soldering condition

Temperature:	350 °C.
Time:	3 sec. Max.
Times:	one time



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Technical Note:

- **Recommended cleaning conditions**

If cleaning is necessary after soldering, it is recommended to wash with washing solvent for semiconductors.

- **Recommended storage conditions**

Guarantee period shall be twelve months after the date products are received by customer on the follow conditions

1. Temperature 5 to 40°C (Recommended: 20 to 30°C)
2. Humidity 30 to 80% RH (Recommended: 40 to 60% RH)

Note: (This recommended period is for the soldering condition only. The characteristics and reliabilities of the products are not restricted to this limitation)

- **Moisture sensitivity level (MSL)**

All products are qualified and classified as Moisture Sensitivity Level 1 (MSL 1) and are designed to withstand standard soldering and moisture exposure conditions in accordance with recognized semiconductor industry practices.