# 4 ANCORA 

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## SMD Soldering Recommendations

## 1. SMD products are qualified for reflow soldering. The approval for other soldering methods is product-specific. If a soldering method different from the qualified one is required, the following remarks should be considered: <br> 1.1 The maximum temperature of the component body and leads must not exceed the maximum temperature allowed for the qualified soldering method.

1.2 The maximum allowed time at high temperatures must not exceed the maximum time allowed for the qualified soldering method.
1.3 If increased heat is applied to the leads (e.g. during iron soldering), the maximum temperatures in the package and of the package body must not exceed the maximum temperatures allowed during the qualified soldering method.
1.4 In order to prevent damage to the component, mechanical or thermo-mechanical overstress during manual handling and soldering must be avoided (especially contact between the soldering iron or hot-air gun and the component package).
1.5 Wave soldering of packages is not recommended since they are qualified only for reflow temperature profiles.

## 2. Recommended Reflow Soldering Profile

### 2.1 Classification Reflow Parameter

| Parameter | Value |  |
| :--- | :---: | ---: |
| Preheat ramp up rate | $1 \sim 3$ | ${ }^{\circ} \mathrm{C} / \mathrm{sec}$ |
| Soaking Temperature | $150^{\sim} 200$ | ${ }^{\circ} \mathrm{C}$ |
| Soaking Time | $60^{\sim} 180$ | sec |
| Peak Temperature | 260 | ${ }^{\circ} \mathrm{C}$ |
| Cool down rate | $1 \sim 6$ | ${ }^{\circ} \mathrm{C} / \mathrm{sec}$ |
| Number of allowed reflow cycles | 3 |  |

### 2.2 Classification Reflow Soldering Profile <br> 

## Note

A. Applicable for Pb -free solder paste under convection reflow.
B. The reflow profile herein is for reference only. Users are advised to optimize their own parameters to get proper reflow outcome.

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## Application Note

## Revision History

| Revision | Date | Description of Change |
| :---: | :---: | :--- |
| 00 | $2020-12-23$ | First Release |
| 01 | $2022-04-14$ | 2. Recommended Reflow Soldering Profile revised |
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