Supplier : JIANGSU CHANGJING ELECTRONICS TECHNOLOGY CO.,LTD.

1. Recommend reflow soldering profile

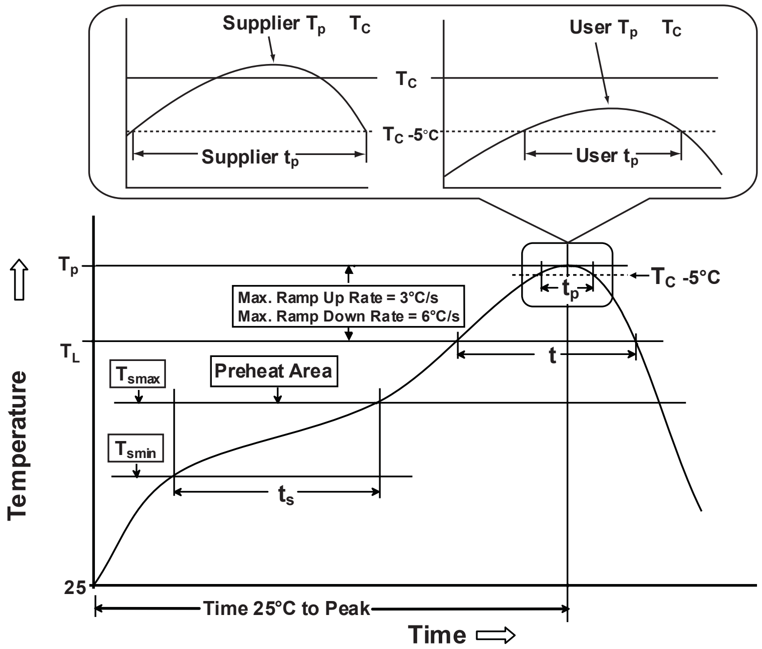

Figure 1. Temperature Profile for Infrared or Convection

Table 1-1. Pb-Free Process - Classification Temperatures (T_C)

Package Thickness	Volume mm³ <350	Volume mm³ 350 - 2000	Volume mm³ >2000
<1.6 mm	260 ℃	260 ℃	260 ℃
1.6 mm - 2.5 mm	260 ℃	250 ℃	245 ℃
>2.5 mm	250 ℃	245 ℃	245 ℃

Table 1-2. Reflow Profile

Profile Feature	Pb-Free Assembly
Preheat/Soak Temperature Min (T_{smmin}) Temperature Max (T_{smmax}) Time (t_s) from (T_{smmin} to T_{smmax})	150 ℃ 200 ℃ 60-120 seconds
Ramp-up rate (T_L to T_p)	3 ℃/second max.
Liquidous temperature (T_L) Time (t_L) maintained above T_L	217 ℃ 60-150 seconds
Peak package body temperature (T_p)	T_p must not exceed the Classification temp in Table 1-1.
Time (t_p)* within 5 °C of the specified classification temperature (T_C), see Figure 1.	30* seconds
Ramp-down rate (T_p to T_L)	6 ℃/second max.
Time 25 °C to peak temperature	8 minutes max.
* Tolerance for peak profile temperature (T_p) is defined as a supplier minimum and a user maximum.	

2. Recommended wave soldering profile

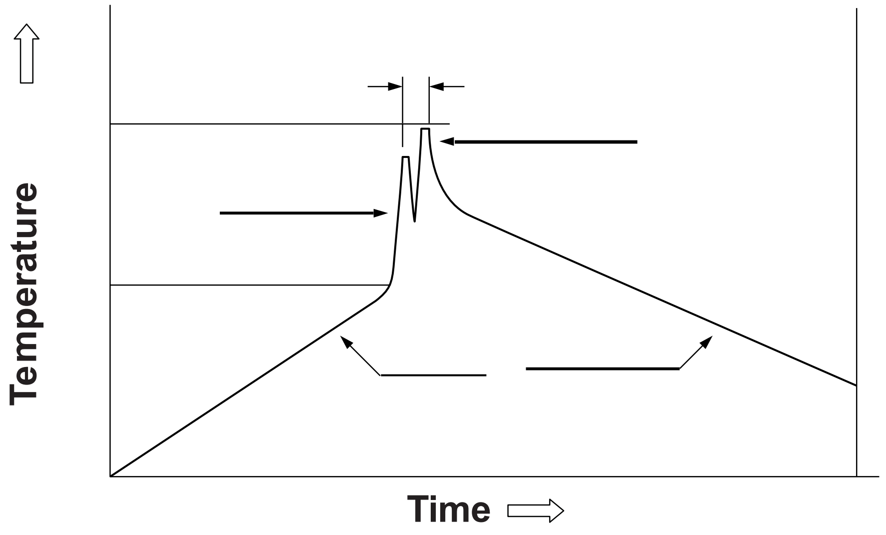

Figure 2. Temperature Profile for Wave Soldering

Table 2. Wave Soldering Profile

Parameter	Description	Pb-Free Assembly
Ramp-Up	Average Ramp-Up Rate	200°C/s
Heating	Heating Rate During Preheat	1 °C/s to 2 °C/s typical 4 °C/s maximum
T_S	Final Preheat Temperature	130°C
T_P	Peak Temperature	260°C
t_P	Time Within Peak Temperature	10s
Ramp-Down	Ramp-Down Rate	5 °C/s maximum

3. Manual Soldering Specification

Components must meet the requirements for manual soldering and rework processes under the following conditions:

- Soldering temperature: 350±5°C
- Duration per soldering operation: less than 3 seconds
- Recommended soldering cycles: no more than 3 times (exceeding this may risk damage to the component)