

# UM800Y 回流焊曲线

版本：V1.0



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<http://www.unicmicro.com/>

## 版本修订

版本	日期	描述
V1.0	2022.04.12	初始版

本文主要介绍芯片回流焊规范及 UM800Y 回流焊曲线。

# 1 芯片回流焊规范

Table 5-2 Classification Reflow Profiles

Profile Feature	Sn-Pb Eutectic Assembly	Pb-Free Assembly
<b>Preheat/Soak</b>		
Temperature Min ( $T_{smin}$ )	100 °C	150 °C
Temperature Max ( $T_{smax}$ )	150 °C	200 °C
Time ( $t_s$ ) from ( $T_{smin}$ to $T_{smax}$ )	60-120 seconds	60-120 seconds
Ramp-up rate ( $T_L$ to $T_p$ )	3 °C/second max.	3 °C/second max.
Liquidous temperature ( $T_L$ )	183 °C	217 °C
Time ( $t_L$ ) maintained above $T_L$	60-150 seconds	60-150 seconds
Peak package body temperature ( $T_p$ )	For users $T_p$ must not exceed the Classification temp in Table 4-1. For suppliers $T_p$ must equal or exceed the Classification temp in Table 4-1.	For users $T_p$ must not exceed the Classification temp in Table 4-2. For suppliers $T_p$ must equal or exceed the Classification temp in Table 4-2.
Time ( $t_p$ )* within 5 °C of the specified classification temperature ( $T_c$ ), see Figure 5-1.	20* seconds	30* seconds
Ramp-down rate ( $T_p$ to $T_L$ )	6 °C/second max.	6 °C/second max.
Time 25 °C to peak temperature	6 minutes max.	8 minutes max.

\* Tolerance for peak profile temperature ( $T_p$ ) is defined as a supplier minimum and a user maximum.

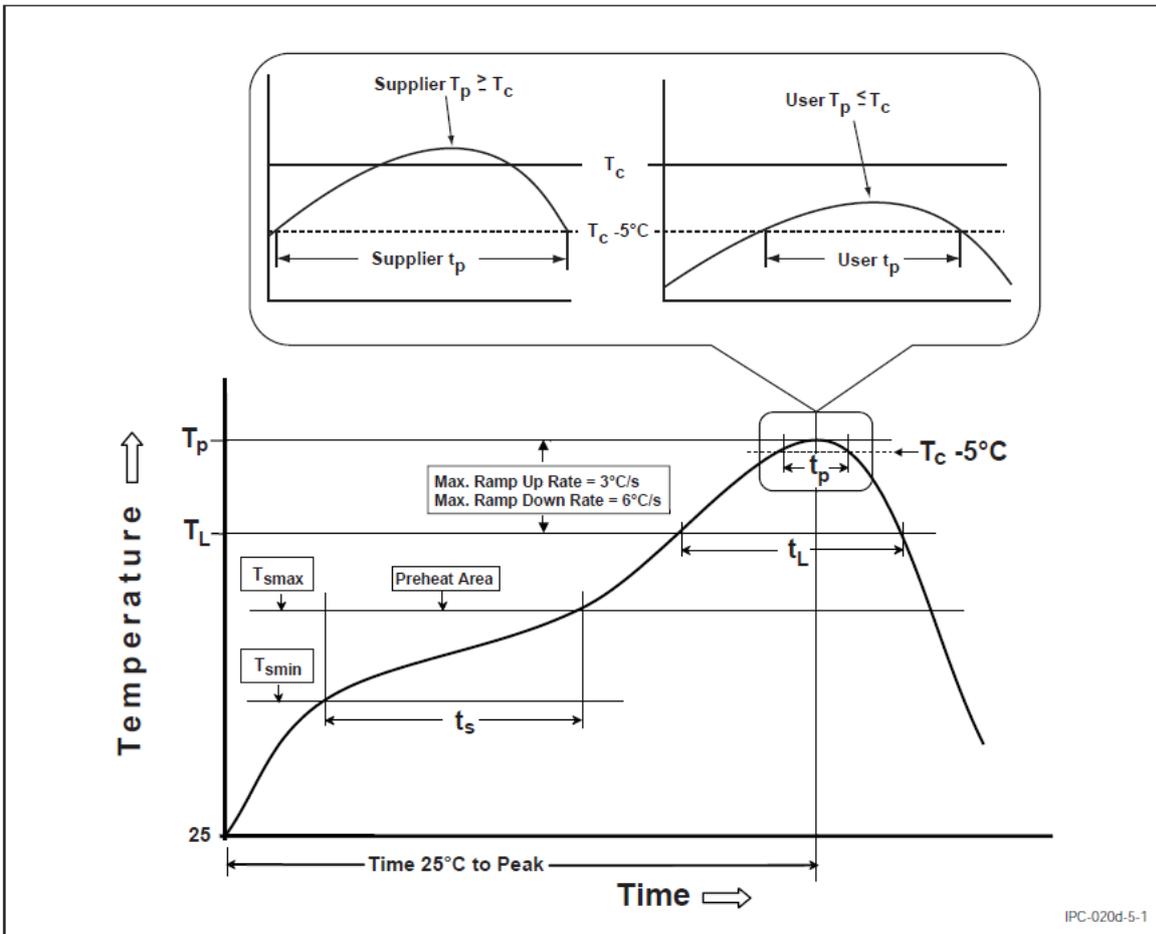


Figure 5-1 Classification Profile

Table 4-1 SnPb Eutectic Process - Classification Temperatures ( $T_c$ )

Package Thickness	Volume mm <sup>3</sup> <350	Volume mm <sup>3</sup> ≥350
<2.5 mm	235 °C	220 °C
≥2.5 mm	220 °C	220 °C

Table 4-2 Pb-Free Process - Classification Temperatures ( $T_c$ )

Package Thickness	Volume mm <sup>3</sup> <350	Volume mm <sup>3</sup> 350 - 2000	Volume mm <sup>3</sup> >2000
<1.6 mm	260 °C	260 °C	260 °C
1.6 mm - 2.5 mm	260 °C	250 °C	245 °C
>2.5 mm	250 °C	245 °C	245 °C

备注：详细规范请参考《JSTD020D-01.pdf》文档。

# 2 UM800Y 回流焊曲线

## 2.1 TSSOP20 回流焊曲线

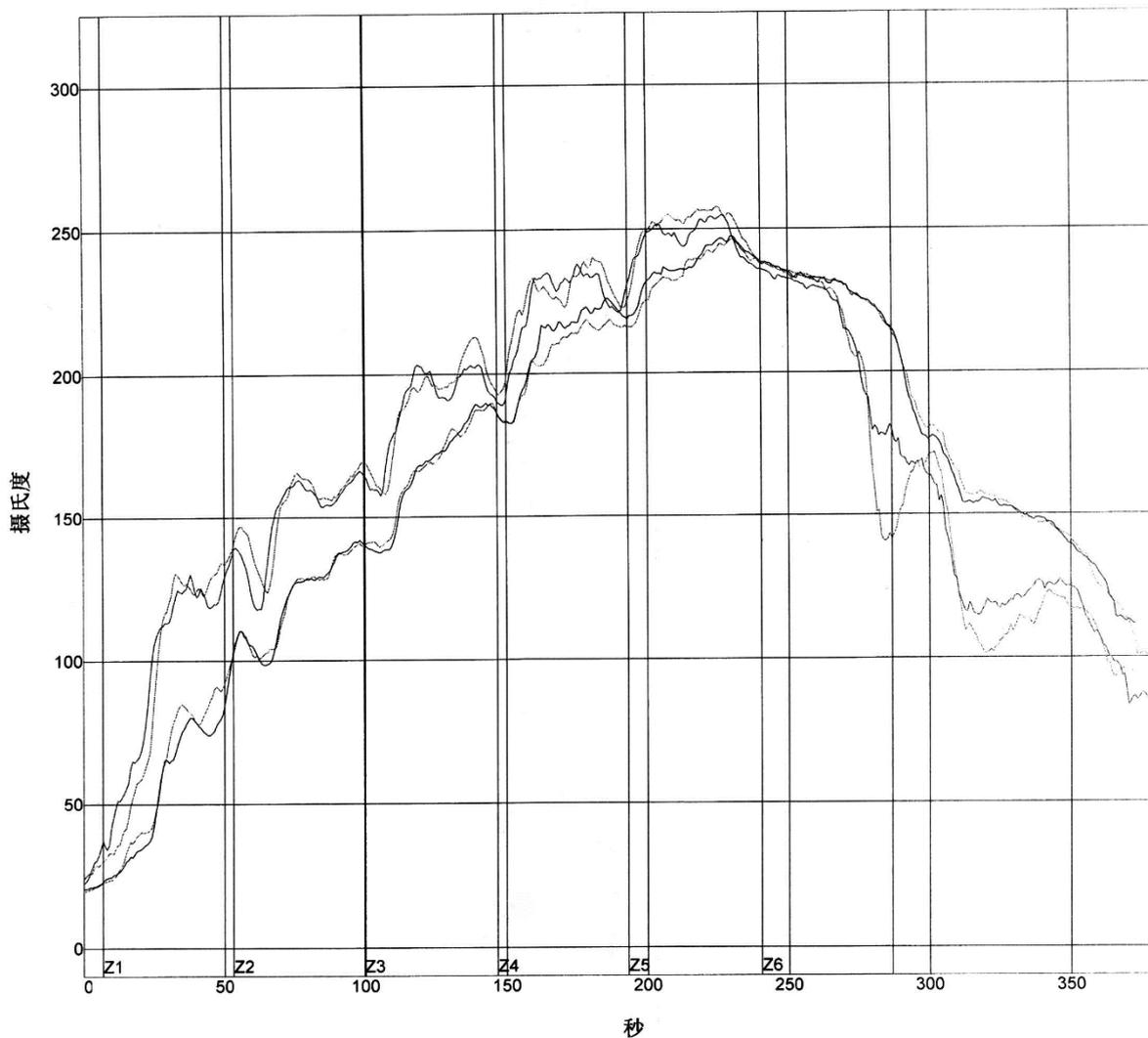
My First Product

周五 2022年02月11日, 10:55:29

公司名称: Unicmicro  
炉子名称:

地点:  
制程界限名称: System Default for Reflow

温度设置 (摄氏度)						
温区	1	2	3	4	5	6
上温区	160	180	220	255	265	220
下温区	160	180	220	255	265	220
传送带速度 (英寸/分): 21.0						



PWI= 80%	最高上升斜率		恒温时间		回流时间		最高温度	
<TC2>	3.49	49%	82.57	63%	207.95	-12%	257.98	80%
<TC3>	3.21	21%	41.59	32%	167.62	-16%	254.84	-65%
<TC4>	2.17	-28%	26.92	38%	158.80	-12%	246.50	-17%
<TC5>	2.28	52%	18.67	16%	158.60	-9%	247.75	-40%
温差	1.32		63.90		49.35		11.48	

## 2.2 QFN20 回流焊曲线

