

**Table 1: Recommended Reflow Profile**

Profile Feature	Sn-Pb Assembly	Pb-free Assembly
Avg. ramp-up rate (T <sub>L</sub> to T <sub>p</sub> )	3°C/sec max	3°C/sec max
Preheat/Soak Min. Temp (T <sub>s_min</sub> ) Max. Temp (T <sub>s_max</sub> ) Time (t <sub>s</sub> ) from (T <sub>s_min</sub> to T <sub>s_max</sub> )	100°C 150°C 60-120 seconds	150°C 200°C 60-180 seconds
Time Maintained Above Temp(T <sub>L</sub> ) Time (t <sub>L</sub> )	183°C 60-150 seconds	217°C 60-150 seconds
Peak Package Body Temperature (T <sub>p</sub> )	For users, T <sub>p</sub> must not exceed the Classification temp in Table 2. For suppliers, T <sub>p</sub> must equal or exceed the Classification temp in Table 2.	For users, T <sub>p</sub> must not exceed the Classification temp in Table 3. For suppliers, T <sub>p</sub> must equal or exceed the Classification temp in Table 3.
Time within 5°C of actual Peak Temp (T <sub>p</sub> )	20* seconds	30* seconds
Ramp-down Rate (T <sub>p</sub> to T <sub>L</sub> )	6°C/sec max	6°C/sec max
Time Peak Temp to 25°C	6 min max	8 min max
* Tolerance for peak profile temperature (T <sub>p</sub> ) is defined as a supplier minimum and a user maximum.		

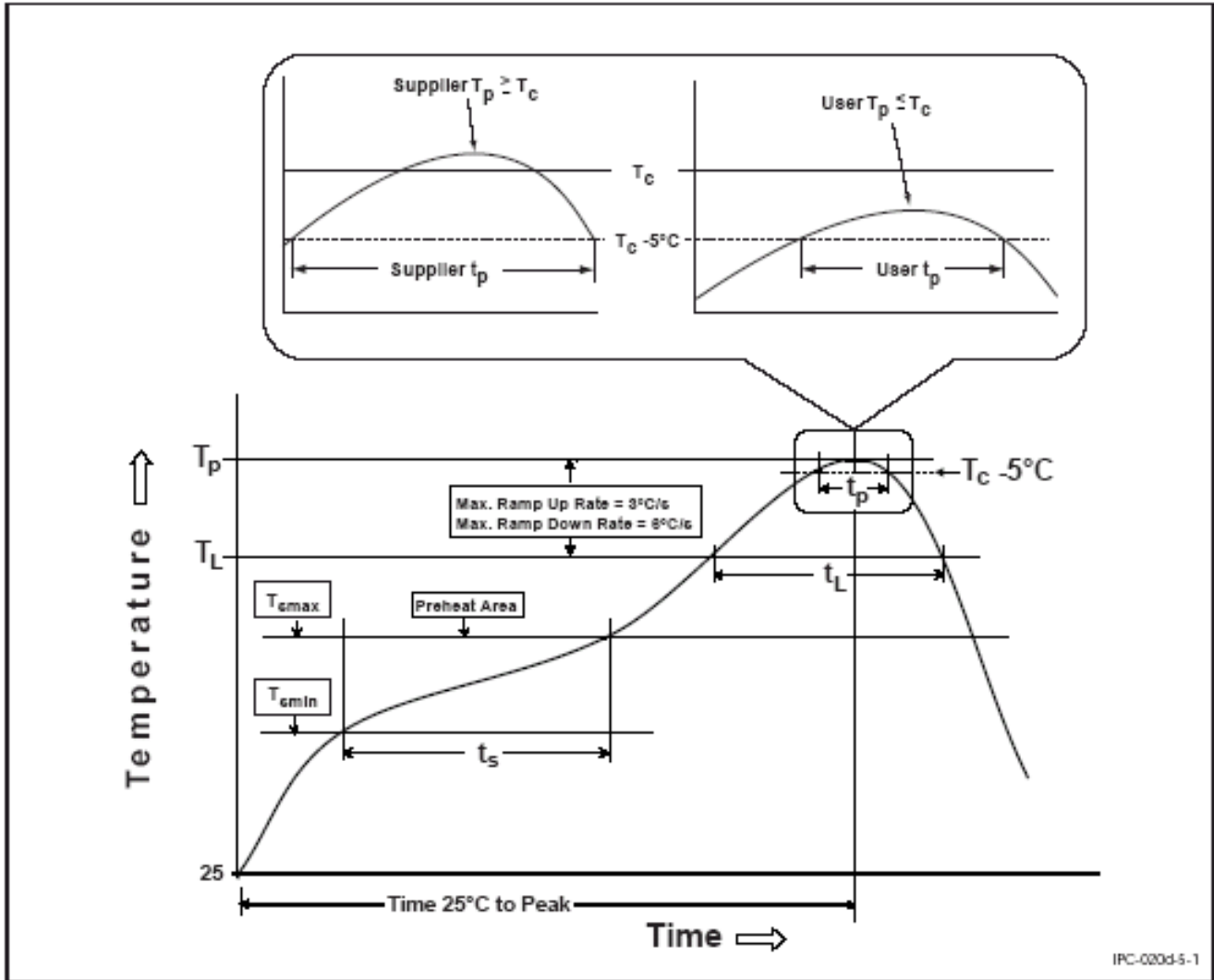
**Table 2: Sn Pb Eutectic Process – Classification Temperatures (T<sub>c</sub>)**

Package Thickness	Volume mm <sup>2</sup> <350	Volume mm <sup>2</sup> ≥350
<2.5 mm	235 °C	220 °C
≥2.5 mm	220 °C	220 °C

**Table 3: Pb-Free Process – Classification Temperatures (T<sub>c</sub>)**

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

## Reflow Profile Chart



### Revision History

Date Created	Revision	Description
Feb 07, 2018	Rev 00	New Release