RE-FLOW TEMPERATURE PROFILE FOR LEAD-FREE PACKAGE

Pb-free Process – Package Classification Reflow Temperatures

Package Thickness	Volume mm^3<350	Volume mm^3: 350- 2000	Volume mm^3>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

Profile Feature	Pb-free Assembly
Ramp-Up Rate(TL to Tp)	3 °C/second max.
Preheat– Temperature Min (Tsmin) to Max (Tsmax)	150~200 °C
– Time (tsmin to tsmax)	60-120 seconds
Time maintained above – Temperature (TL)	217 °C
– Time (tL)	60-150 seconds
Peak Temperature (Tp) (Note 2)	See package classification
Time within 5 °C of actual Peak,Temperature (tp)	30 seconds (Note 3)
Ramp-Down Rate(Tp to TL)	6 °C/second max.
Time 25 ℃ to Peak Temperature	8 minutes max.
Number of applicable Temperature cycles	3 cycles max.

Notes: 1. All temperatures refer to top side of the package, measured on the package body surface.

2. The peak temperature (Tp) is defined as package heatproof min. and customer used max.

3. The time at peak temperature (tp) is defined as package heatproof min. and customer used max.