Table 1. Reflow Profiles Details

Profile Feature	Sn-Pb Eutectic Assembly	Pb-Free Assembly
Average Ramp-UP Rate (TS_{max} to TP)	3°C / second max.	3°C / second max.
Preheat - Temperature Min (TS_{min}) - Temperature Max (TS_{max}) - Time (TS_{min} to TS_{max})	100°C 150°C 60-120 sec	150°C 200°C 60-180 sec
Time maintained above: - Temperature (T_L) - Time (t_L)	183°C 60-150 sec	217°C 60-150 sec
Peak Tempature (T_P)	240 +0/ -5°C	260 +0/ -5°C
Time with 5°C of actual Peak Temperature (tp)[2]	10-30 sec	20-40 sec
Ramp-down Rate	6°C / second max.	6°C / second max.
Time 25°C to Peak Temperature	6 minutes max	8 minutes max

Table 2. Typical solder paste characteristics

Solder	Melting temperature	Minimun peak reflow temperature
SnPb	183°C	215°C
Sn(96%)Ag(3.5%)Cu(0.5%)	217°C	235°C

Table 3. SnPb Eutectic Process - Package Peak Reflow Temperatures

Package Thickness	Volume mm^3 <350	Volume mm^3 ≥350
<2.5 mm	240 +0/ -5°C	225 +0/ -5°C
≥2.5 mm	225 +0/ -5°C	225 +0/ -5°C

Table 4. Pb-free Process - Package Peak 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*

* Tolerance : The device manufactuer / supplier shall assure process compatibility up to and including the stated classification temperature at the rated MSL level.