Recommended Reflow Soldering Profile

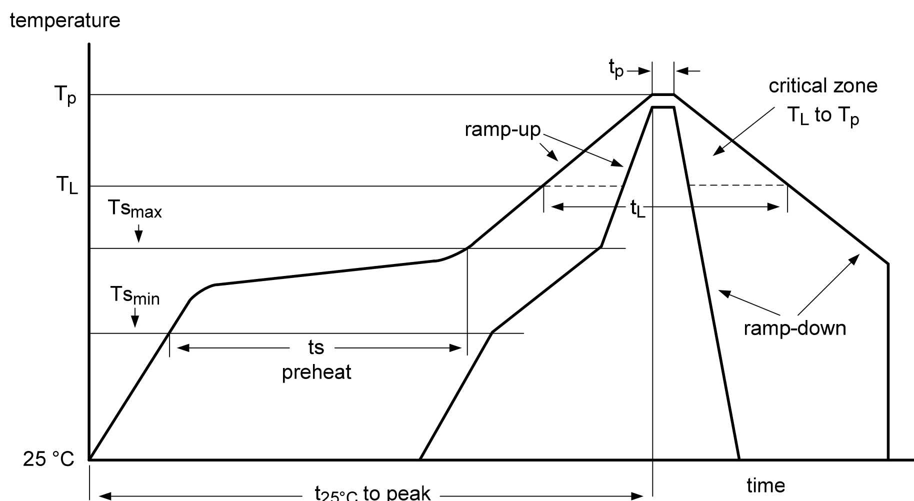
Limiting Values*

The below temperature profile for moisture sensitivity characterization is based on the IPC/JEDEC joint industry standard: J-STD-020D-01.

Profile Feature	SnPb eutectic assembly	Pb-free assembly
Average ramp-up rate (T_{smax} to T_p)	3 °C/s maximum	3 °C/s maximum
Preheat Temperature minimum (T_{smin}) Temperature maximum (T_{smax}) Time (t_{smin} to t_{smax})	 100 °C 150 °C 60 s to 120 s	 150 °C 200 °C 60 s to 180 s
Time maintained above Temperature (T_L) Time (t_L)	 183 °C 60 s to 150 s	 217 °C 60 s to 150 s
Peak/classification temperature (T_p)	235 °C	260 °C
Number of allowed reflow cycles	3	3
Time within 5 °C of actual peak temperature (t_p)	10 s to 30 s	20 s to 40 s
Ramp-down rate	6 °C/s maximum	6 °C/s maximum
Time 25 °C to peak temperature	6 minutes maximum	8 minutes maximum

* applicable for devices from NXP Business Line GA Discretes. Pb-free assembly data on base of SnAg3.8Cu0.7 (SAC).

Reflow Soldering Profile



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