

Surface Mount Solder Reflow Profile – Semiconductor Packages

Surface Mount Packages are qualified by simulating the solder reflow conditions specified in IPC/JEDEC J-STD-020, which defines soldering conditions for moisture reflow sensitivity classification.

Users should ensure they do not exceed the scope of IPC/JEDEC J-STD-020 (Pb-Free) during solder assembly.

Profile Feature	Profile Limits
Preheat temperature min. (T_{smin})	150°C
Preheat temperature max. (T_{smax})	200°C
Ramp time ($T_{smax} - T_{smin}$)	60 – 120 seconds
Ramp –up rate (T_L to T_p)	3 °C/second max
Liquidus temperature (T_L)	217°C
Time maintained above T_L	60-150 seconds
Peak package body temperature	260°C
Time within 5°C of peak temperature (t_p)	30 seconds max
Ramp –down rate (T_p to T_L)	6 °C/second max
Time from 25°C to peak temperature	8 minutes max.

