Soldering Surface Mount Components

RoHS compliant components

For all soldering methods, the optimal reflow profile for a circuit board assembly is dependent on several factors other than just the Coilcraft component and the chosen solder paste, such as the size and layout of all components. Large parts may require higher temperatures or a longer preheat time, whereas smaller parts (0201, 0402) may require extra considerations to avoid damage to the components.

Following are general guidelines (See Table 1.) that should only be considered a starting point for development of a proper reflow profile that considers, at a minimum, part size, the specific customer-chosen solder alloy, and the PCB component population. No single reflow profile covers all possible circuit board designs.

Table 1. General Guidelines

	RoHS	Units
Preheat / Soak Temperature	150 – 200	°C
Preheat / Soak Duration	60 – 120	seconds
Ramp-up Rate	3	°C/second
Typ. Reflow Temperature	217	°C
Peak Temperature	255 – 260	°C
Time Within 5 °C of Peak	30	seconds
Time Above Reflow Temperature	60 – 150	seconds
Ramp-down Rate	6	°C/second