

SURFACE MOUNT ALUMINUM ELECTROLYTIC CAPACITORS

Reflow soldering method for the chip aluminum electrolytic capacitor

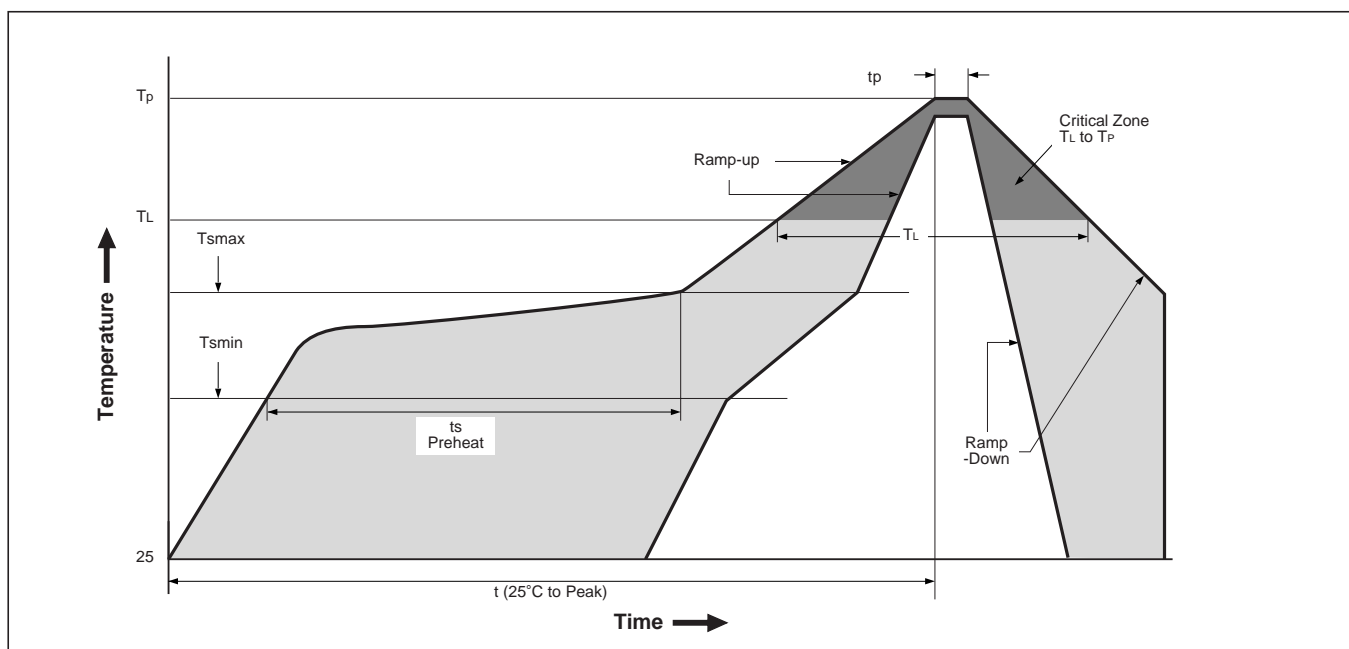
1. Recommended conditions for reflow soldering

The chip aluminum electrolytic capacitor is subjected to soldering by reflow method.

Temperature and time conditions of reflow soldering shall be set as per each temperature profile shown below as a standard. The following are recommended conditions in the case of reflow soldering method for the chip aluminum electrolytic capacitor.

- (1) The capacitor shall not be subjected to either flow or dip soldering method.
- (2) Avoid soldering twice by reflow. The number of reflow time for chip aluminum electrolytic capacitor shall be once basically. If this type of capacitor has to be inevitably subjected to the reflow twice, enough cooling time between the first and the second reflow (at least more than 30 minutes) shall be taken to avoid the consecutive reflows by all means.
- (3) The touch up work with a soldering iron is allowed after the reflow soldering (Temperature of soldering iron : MAX 400°C, Time : 5 sec.), provided that carefully attention shall be paid lest a soldering iron should directly touch the capacitor body or its resin bottom base.

2. RECOMMENDED REFLOW SOLDERING CONDITIONS



Profile Feature		Soldering condition	
		ø 3 ~ ø 10	ø 12.5
Average Ramp-up Rate (TL to TP)		3°C / second max.	3°C / second max.
Preheat	Temperature Min. (Ts min)	150°C	150°C
	Temperature Max. (Ts max)	200°C	200°C
	Teim (Ts min to Ts max)	60 ~ 150 seconds	40 ~ 120 seconds
Ts max to TL -Ramp-up Rate		3°C / second max.	3°C / second max.
Time maintained above	Teim (TL)	217°C	217°C
	Teim (tL)	60 ~ 90 seconds	40 ~ 60 seconds
Peak/classification Temperatrue (TP)		250°C	240°C
Time within 5°C of actual peak temperature(TP)		10 seconds max.	10 seconds max.
Ramp-Down rate		3°C / second max.	3°C / second max.
Time 25°C to peak temperature		8 minute max.	8 minute max.

Note. All temperatures measured on the body surface