

Soldering of aluminum electrolytic capacitors

Hand soldering (soldering iron)

1. When soldering aluminum electrolytic capacitors with a soldering iron the exposure should be limited to 260°C for 10 seconds or 350°C for 3 seconds.
2. At no time should the soldering iron come in contact with the capacitor body. Contact with the body can cause the sleeving to crack or melt.
3. To remove a capacitor from a printed circuit board, the capacitor should be pulled on gently after the solder holding the capacitor to the circuit board has sufficiently melted.

Wave soldering

1. Aluminum electrolytic capacitors are not to be immersed into the solder bath at anytime. To do so would result in the internal pressure within the capacitor to rise, damaging the capacitor would result.
2. Aluminum electrolytic capacitors are only to be mounted to the topside of the circuit board.
3. The capacitor should be to a maximum solder bath temperature of 260°C for 10 seconds.
4. Preheat temperature should be limited to 125°C for 30 seconds.
5. Heat conducting component like resistors and lead wires, should not be in contact or near aluminum electrolytic capacitors. This will prevent heat from these components being transmitted to the capacitors sleeve and damaging the sleeve.

Reflow soldering

Surface mount aluminum electrolytic capacitors

1. Surface mount capacitors can only be exposed to reflow soldering processes. For recommended reflow soldering profile. See technical paper titled "Lead Free Reflow soldering profile"
2. Through hole capacitors are not to be used in reflow soldering processes.