Perform circuit design based on the confirmed change magnitude.

(15) When installing capacitors on double-sided printed circuit boards, ensure the circuit design leaves no unused PCB vias beneath the capacitor and includes through-holes for connecting both sides during layout.

(16) The tightening torque for threaded terminals and screws used in capacitor installation must not exceed the limits specified in the delivery specification.

(17) When connecting two or more capacitors in parallel, careful consideration must be given to current balance.

This requires particular consideration when using parallel-connected conductive polymer tantalum solid electrolytic capacitors alongside conventional aluminum electrolytic capacitors.

(18) When Connecting Two or More Capacitors in Series, Voltage Balance Must Be Considered, and a Voltage Divider Resistor Should Be Inserted in Parallel With the Capacitors.

2 Installation Precautions

(1) Do not reuse capacitors that have been assembled onto equipment and powered on. Except for those removed during regular maintenance to test electrical performance, no capacitors should be reused.

(2) Even after discharging the capacitor, a voltage may still exist between the terminals (reflashover voltage). In this case, discharge the capacitor using a 1 kΩ resistor.

(3) The leakage current of capacitors stored for more than two years may increase. In this case, apply voltage treatment using a 1 kΩ resistor.

(4) After confirming the capacitor's rated values (static capacitance and voltage), proceed with installation.

(5) Please confirm the polarity of the capacitor before installation.

(6) Do not drop the capacitor to the ground, and do not use a capacitor that has fallen.

(7) Do not deform the capacitor body during installation.

(8) Ensure that the terminal spacing of the capacitor matches the hole spacing on the printed circuit board before installation.

(9) When installing a substrate-standing capacitor, it must be pushed in until it is tightly sealed against the substrate (not in a floating state).

(10) The strength of the capacitor leads secured by the automatic inserter should not be excessive.

(11) Be aware of the impact forces generated by the automatic inserter and assembly machine, including their suction devices, product inspectors, and alignment operations.

(12) Welding performed using a soldering iron

① The welding conditions (temperature and time) must not exceed the ranges specified in the delivery specification.

② When processing lead terminals due to inconsistent spacing between terminals and holes on the printed circuit board, the capacitor body must not be subjected to pressure during processing before soldering.

③ When trimming with a soldering iron, if you need to remove the soldered capacitor first, ensure the solder has fully melted before disassembly to avoid applying pressure to the capacitor terminals.

④ Do not let the tip of the soldering iron come into contact with the main body of the capacitor.

(13) wave-soldering

① During welding, do not immerse the capacitor body in solder. Insert the capacitor onto the printed circuit board and weld only the opposite side of the capacitor.

② The welding conditions (preheating, welding temperature, terminal immersion time) must not exceed the ranges specified in the delivery specification.

③ No flux should be applied except on the terminal section.

④ During welding, take care to prevent other components from coming into contact with the capacitor.

(14) reflow soldering

① The welding conditions (preheating, welding temperature, and duration) must not exceed the ranges specified in the delivery specification.

② When using an infrared heater, the degree of heating must be carefully controlled, as the infrared absorption rate varies depending on the color and material of the capacitor.

③ Set the capacitor's reflow cycle to 1. However, if a 2-cycle reflow is required, please consult us.

The conductive polymer aluminum solid electrolytic capacitor can withstand up to two charge cycles. However, sufficient cooling time must be allowed between the first and second cycles.

(15) In halogen-free fluxes, some formulations, although free of ionic halogen compounds, contain substantial amounts of nonionic halides. When these compounds enter the capacitor, they undergo chemical reactions with the electrolyte, potentially producing adverse effects identical to those observed after cleaning.

Please use a flux that does not contain nonionic halogen compounds.

(16) During welding or when the capacitor is exposed to an ambient temperature exceeding 150°C for more than two minutes due to the curing of the resin used for fixing the capacitor, or when it is directly contacted with high-temperature gases or thermal radiation, the outer sleeve may experience contraction, expansion, or cracking.

(17) After soldering the capacitor onto the printed circuit board, do not tilt, lay it upside down, or twist its body.

(18) After soldering the capacitor onto the printed circuit board, do not use the capacitor as a handle to move the board.

(19) After soldering the capacitor onto the printed circuit board, avoid any contact with other objects.

Additionally, when overlapping printed circuit boards, ensure that the boards or other components do not come into contact with the capacitor.