



APPLICATION NOTICE

When you use aluminum electrolytic capacitors, remember the following.

1. Polarity

- Aluminum electrolytic capacitors are polarized.
- Reverse voltage causes short circuit breakage of the capacitor or leakage of electrolyte. Where the polarity in a circuit sometimes reversed or unknown, a bi-polar capacitor should be used.

2. Overvoltage

- Do not apply overvoltage continuously.
- When overvoltage is applied to the capacitor, leakage current increase drastically.
- Applied working voltage to capacitors should not exceed the rated working voltage of capacitor.

3. Operating temperature and life:

- Use the capacitors according to the specified operation temperature range.
- Life time of the capacitor depends on the temperature.
- If used the capacitor outside the maximum rated temperature will considerable shorten the life or cause the capacitor to vent. Usage of capacitor at room temperature will ensure longer life.

4. Ripple current

- Do not apply a ripple current exceeding the rated maximum ripple current.
- Applying too higher ripple current to the capacitor causes great heat generation, invites deterioration of properties of cases breakage.

5. Charge and discharging

- Frequent and quick charge/discharge generates heat inside the capacitor, causing increase of leakage current, decrease of capacitance, or breakage occasionally.

6. Vent

- It is recommended at least 3mm of space around the vent. If such space is not provided, the vent will not operate completely.

7. Soldering

- Be careful of temperature and time when soldering. Dip of flow soldering of the capacitors should be limited at less than 260°C and 10 seconds.
- When soldering temperature is too high and the soldering time is too long, it will cause the capacitor,s characteristics and the sleeve may shrink or break.

8. Cleaning of boards after soldering

- If the capacitor is cleaned in halogenated solvent for organic removing solder flux solvent, the solvent may penetrate into the inside of capacitor, and may generate corrosion.

9. Mechanical stress on the lead wire and the terminal

- Do not apply excessive force to the lead wire and the terminal.
- Do not move the capacitor after soldering to the PC board, not carry the PC board by picking up the capacitor.

10. Sleeve material

- The standard sleeve material is polyvinyl-chloride. If exposed to xylene, toluene, etc., and then subjected to high heat, the sleeve may crack. This sleeve is not insulating material.

11. Storage

- When the capacitor is stored for a long time without applying voltage, leakage current tends to increase.
- This returns to normal by applying the rated voltage to the capacitor before use.
- It is recommended to apply D.C. working voltage to the capacitor for 30 minutes through $1\text{K}\Omega$ of protective series resistor, if it is stored for more than 6 months.
- The capacitor should be stored at $5^{\circ}\text{C}\sim 35^{\circ}\text{C}$ and less than 75% in relative humidity indoor.