



## Storage

### *Non-Solid and Solid Aluminum Electrolytic Capacitors*

#### Explanatory Notes

1. Storing capacitors at high temperatures or in direct sunlight will evaporate the electrolyte through the seal of the capacitors. Electrolyte loss causes capacitance decrease and tan  $\delta$  increase as well as leakage current increase due to the deterioration of the dielectric oxide layer.
2. Do not expose capacitors and their packaging materials to wet or high humidity conditions. Capacitors should never be stored outdoors. Packaged capacitors should not be stored directly on the floor of indoor areas, but elevated to prevent moisture absorption.

Exposing capacitors to moisture for long periods of time will corrode the lead wires or terminals and impair solderability. Also, packaging materials will absorb moisture and cause capacitor damage.

Oil causes swelling of the rubber sealing material, deteriorating the seal performance and shortening the lifetime of the capacitor.

3. Toxic gasses will oxidize the lead wires or terminals of capacitors which will impair solderability. An alkaline gas may corrode the case of the capacitors. Halogen gas may penetrate through the seal of the capacitors, causing corrosion and eventual failure during operation.
4. Ultraviolet rays, ozone or radiation will deteriorate the rubber polymers of the sealing material which will mechanically weaken the seal and subsequently shorten the lifetime of the capacitors.

#### Precaution

1. Do not store capacitors in high temperature and high humidity areas. Store capacitors indoors at 5 to 35°C and less than 75% RH.
2. Store the capacitors in areas free from water, oil or saltwater.
3. Store capacitors in areas free from toxic gas such as hydrogen sulfide, sulfuric acid, nitric acid, chlorine or ammonium.
4. Do not store capacitors in areas exposed to direct sunlight, ultraviolet rays, ozone or radiation.

#### Footnotes

Before using capacitors stored for long periods of time, reform them by applying their full rated voltage for about 30 minutes through series resistors. For the specific limits of storage periods, refer to the product literature.