

Thermal printhead

Operation precautions

1. Power on and off sequence must be in the following order to prevent the heat element damage;
Turn on - Apply the logic supply voltage (VDD) first and the printhead supply voltage (VH).
Turn off - Switch off the printhead supply voltage (VH) first and turn the logic supply voltage (VDD) off.
2. When the printhead operation is finished, print supply voltage (including the charged voltage with capacitor) should be reduced to the ground level and remained until next printhead operation.
3. Condensation should be avoided. If condensation occurred, do not switch on the printhead power until condensation disappeared.
4. Heat elements and IC's shall be anti-electrostatic in order to prevent the electrostatic destruction. Do not touch the connector pins by naked hands.
5. The printhead substrate surface is coated with glass. Mechanical stress or shock (including dust or scratch or damage) should be avoided to prevent damage.
6. Please design the component in such a way that the printing media (while in printing) and the paper guide do not contact the IC protective coating and the pin protective coating, in order to keep the printing quality.
7. Please make designing in such a way to avoid the contact with conductive components like thermal head support plate, because there is an area where the electrode are exposed on the surface and the side of thermal printhead.
8. Printing without paper (Thermal paper etc.) should not be done. It may cause destruction on heat due to overload.
9. External force shall not be applied to the connector when it is plugged in or out.
10. Print quality would be degraded if paper or ink residue were stuck on the heat element area. For such a case, please use applicator with alcohol to clean up. Do not use any material or equipment, which destroy the heat elements.
11. Please ensure that the paper used does not include bad element factor to affect the printhead life.
12. Thermal printhead is heat-generating device, so that it may cause heat element damage or smoke / fire on its components by over heating if there occurs mechanical or electrical abnormalities. So please be sure to perform temperature control by thermistor and also to design the power (VH, VDD) shutdown system when abnormalities take place to protect the printhead.
13. If dusts/foreign particles stuck on the surface of thermal head substrate or printed circuit board, it may cause stained print, faded print and also damage of heat element, smoking and combustion. In this case, the head should be cleaned by ethyl-alcohol after power source for head is shut down and please check if the dusts/foreign articles are completely removed. Yet, make sure that ethyl alcohol is dried up before restarting the operation.
14. Please design power source for head (VH, VDD) to be shutdown when the thermal head surpasses the maximum rated wattage while STB is On, or the printing media does not move like paper jam. Otherwise, heated printing media bums and sticks to the head and may lead to combustion.

Notes

- 1) The information contained herein is subject to change without notice.
- 2) Before you use our Products, please contact our sales representative and verify the latest specifications :
- 3) Although ROHM is continuously working to improve product reliability and quality, semiconductors can break down and malfunction due to various factors.
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