

Thick film thermal printhead (with thermal historical control)

KD3006-DC70A

DC70 series has our own internally developed heat-history control function.

This product is best suited for applications which require 24 hours operation like factory production lines.

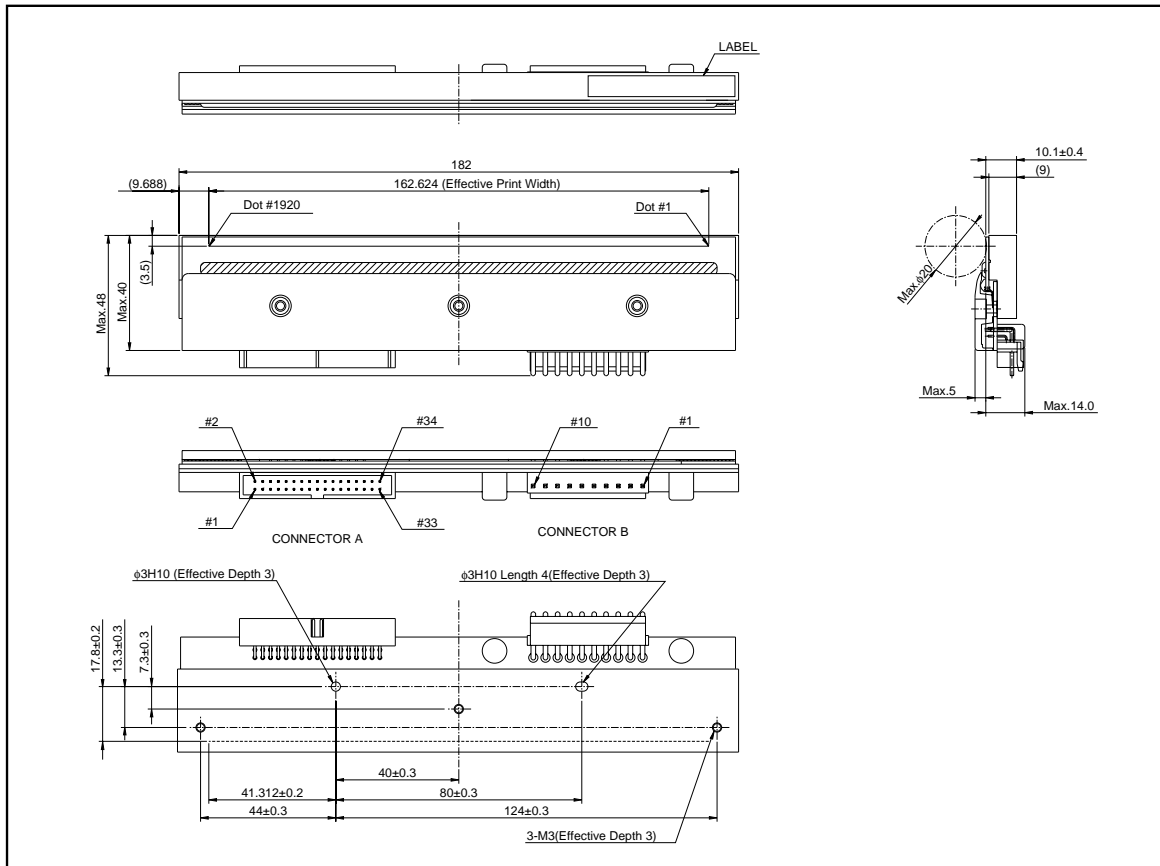
●Applications

- High speed label printer
- High speed bar code printer
- High speed ticket printer
- Various high speed terminal printers

●Features

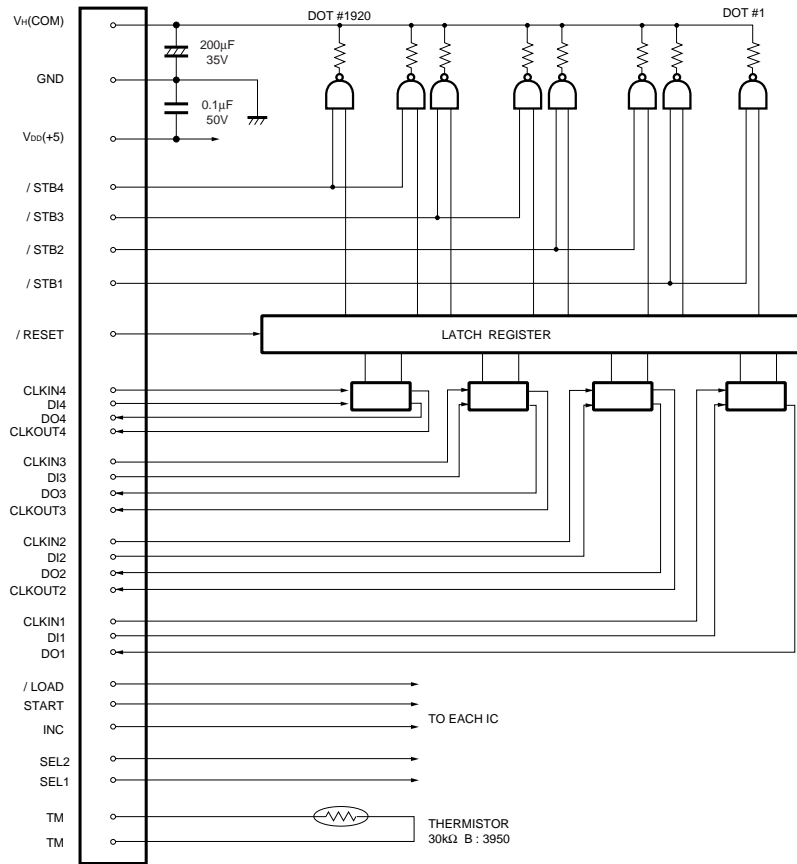
- 1) Newly developed thick-film fast response thermal element and driver LSI with the function of thermal history control which is added the future history control are employed for this series. It is possible to print with super high speed of 10 inches / s or 250 mm / s.
- 2) 150km life realized by attributing durable new protection film.
- 3) New partial glaze construction makes it compatible with the thermal transfer application.

●External dimensions (Unit : mm)



Printhead

●Equivalent circuit



| DI No. | DOT No. |
|--------|--------------|
| DI4 | 1920 to 1409 |
| DI3 | 1408 to 879 |
| DI2 | 896 to 513 |
| DI1 | 512 to 1 |

| / STB No. | DOT No. |
|-----------|--------------|
| / STB4 | 1920 to 1409 |
| / STB3 | 1408 to 897 |
| / STB2 | 896 to 513 |
| / STB1 | 512 to 1 |

| CLK No. | DOT No. |
|---------|--------------|
| CLKIN4 | 1920 to 1409 |
| CLKIN3 | 1408 to 897 |
| CLKIN2 | 896 to 513 |
| CLKIN1 | 512 to 1 |

Fig.1

Printhead

●Pin assignments

| CONNECTOR A | | | | CONNECTOR B | |
|-------------|-----------------|-----|---------|-------------|----------------------|
| No. | Circuit | No. | Circuit | No. | Circuit |
| 1 | V _{DD} | 18 | / LOAD | 1 | V _H (COM) |
| 2 | V _{DD} | 19 | / RESET | 2 | V _H (COM) |
| 3 | NC | 20 | START | 3 | V _H (COM) |
| 4 | NC | 21 | TM | 4 | V _H (COM) |
| 5 | SEL2 | 22 | TM | 5 | V _H (COM) |
| 6 | SEL1 | 23 | DI2 | 6 | GND |
| 7 | CLKIN4 (CP) | 24 | DO2 | 7 | GND |
| 8 | CLKOUT4 | 25 | DI1 | 8 | GND |
| 9 | CLKIN3 | 26 | DO1 | 9 | GND |
| 10 | CLKOUT3 | 27 | / STB2 | 10 | GND |
| 11 | DI4 | 28 | / STB1 | | |
| 12 | DO4 | 29 | CLKIN2 | | |
| 13 | DI3 | 30 | CLKOUT2 | | |
| 14 | DO3 | 31 | CLKIN1 | | |
| 15 | / STB4 | 32 | NC | | |
| 16 | / STB3 | 33 | NC | | |
| 17 | INC | 34 | NC | | |

●Characteristics

| Parameter | Symbol | Typical | Unit |
|---|------------------|--------------------------|-----------|
| Effective printing width | – | 162.624 | mm |
| Dot pitch | – | 0.0847 | mm |
| Total dot number | – | 1920 | dots |
| Average resistance value | R _{ave} | 1000 | Ω |
| Applied voltage | V _H | 24 | V |
| Applied power | P _o | 0.50 | W/dot |
| Print cycle | SLT | 0.41 | ms |
| Maximum number of dots energized simultaneously | – | 1920 | dots |
| Maximum clock frequency | – | 8 | MHz |
| Maximum roller diameter | – | φ20.0 | mm |
| Running life / pulse life | – | 150/(1×10 ⁸) | km/pulses |
| Operating temperature | – | 5 to 45 | °C |

Printhead

●Data sheets

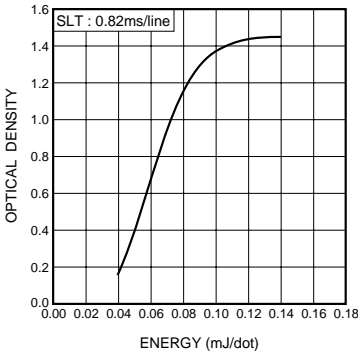


Fig.2 Representative density curve

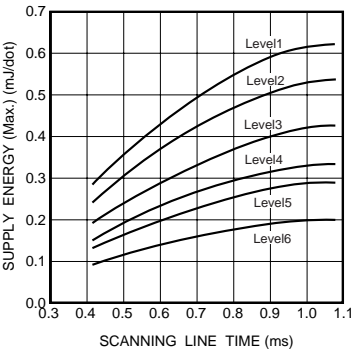


Fig.3 Maximum energy curve

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