

Thick film thermal printhead (8 dots / mm)

KF2003-GL50A

The KF2003-GL50A is a 24 V standard thick film thermal printhead with a printing speed up to 6 inches / s that has been developed mainly for label printer use.

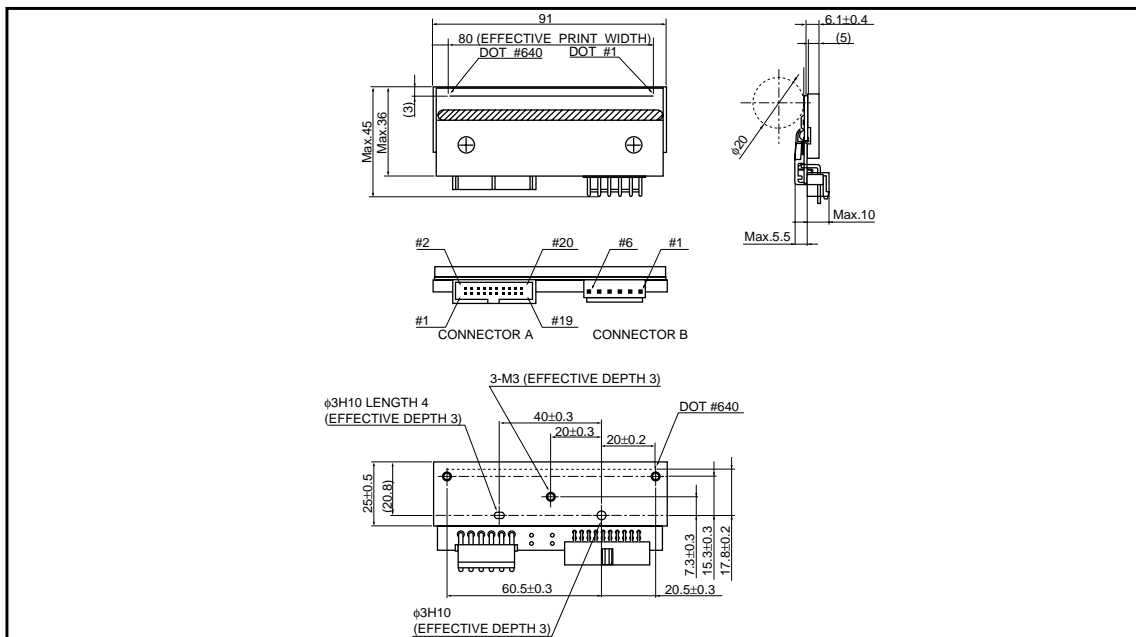
●Applications

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

●Features

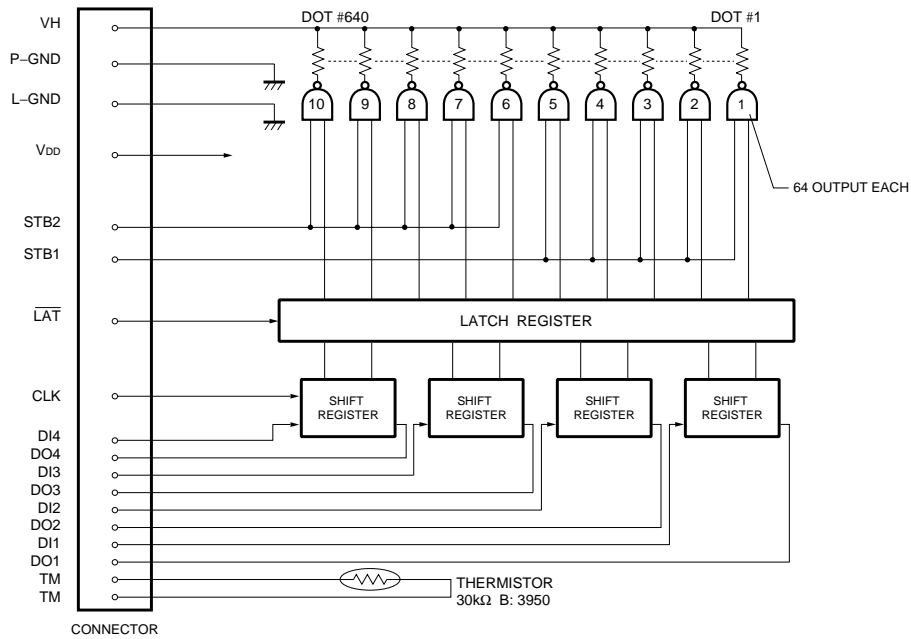
- 1) Newly developed thick-film fast response thermal element is employed for this series and 6 inches / s or 150 mm / s is possible without thermal history control. It is possible to print 10 inches / s or 250 mm / s if external thermal history control is used.
- 2) 150km life realized for GL50 by attributing durable new protection film.
- 3) New partial glaze construction makes it compatible with the thermal transfer application.
- 4) Market-proven G-series printhead construction ensures high reliability.

●External dimensions (Units : mm)



Printheads

●Equivalent circuit



| DI No. | DOT No. |
|--------|---------|
| DI1 | 1~192 |
| DI2 | 193~320 |
| DI3 | 321~512 |
| DI4 | 513~640 |

| STB No. | DOT No. |
|---------|----------|
| STB1 | 1~ 320 |
| STB2 | 321~ 640 |

Fig. 1

●Pin assignments

| CONNECTOR A | | | |
|-------------|-----------------|-----|---------|
| No. | Circuit | No. | Circuit |
| 1 | L-GND | 11 | TM |
| 2 | V _{DD} | 12 | TM |
| 3 | L-GND | 13 | DI3 |
| 4 | V _{DD} | 14 | DO3 |
| 5 | STB2 | 15 | DI2 |
| 6 | CLK | 16 | DO2 |
| 7 | DI4 | 17 | N.C. |
| 8 | DO4 | 18 | STB1 |
| 9 | N.C. | 19 | DI1 |
| 10 | LAT | 20 | DO1 |

| CONNECTOR B | |
|-------------|---------|
| No. | Circuit |
| 1 | VH |
| 2 | VH |
| 3 | VH |
| 4 | P-GND |
| 5 | P-GND |
| 6 | P-GND |

L-GND: LOGIC GROUND
P-GND: POWER GROUND

Printheads

●Timing chart

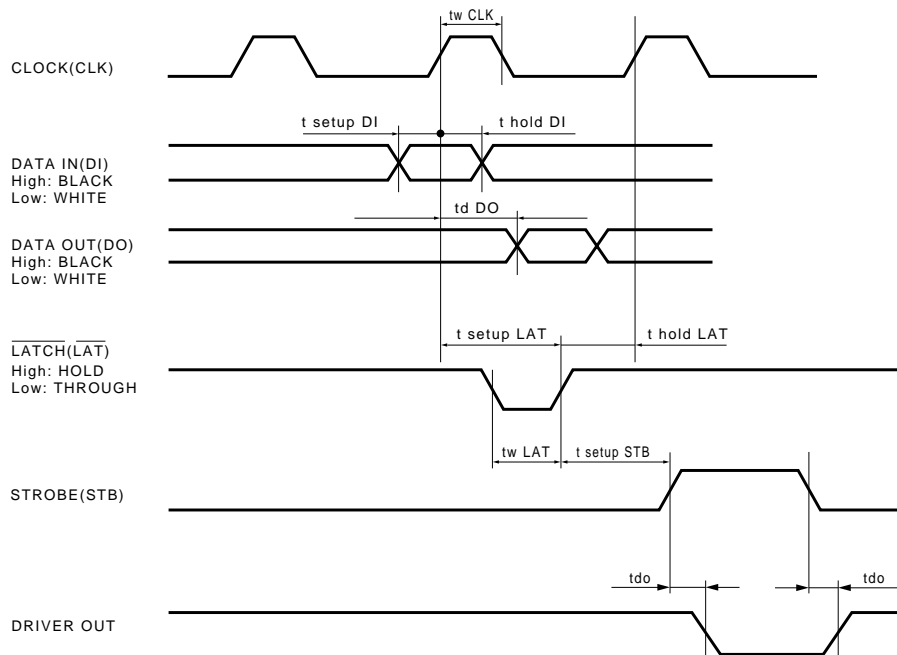


Fig.2

●Characteristics

| Parameter | Symbol | Typical | Unit |
|---|-----------------|----------------------------|-------------|
| Effective printing width | - | 80 | mm |
| Dot pitch | - | 0.125 | mm |
| Total dot number | - | 640 | dots |
| Average resistance value | Rave | 550 | Ω |
| Applied voltage | V _H | 24 | V |
| Applied power | P _o | 0.92 | W / dot |
| Print cycle | SLT | 0.82 | ms |
| Pulse width | T _{ON} | 0.26 | ms |
| Maximum number of dots energized simultaneously | - | 384 | dots |
| Maximum clock frequency | - | 8 | MHz |
| Maximum roller diameter | - | $\phi 20.0$ | mm |
| Running life / pulse life | - | 150 / (1×10 ⁸) | km / pulses |
| Operating temperature | - | 5-45 | °C |

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