Compact low speed thick film thermal printhead (8 dots / mm) KF2004-GK10A

The KF2004-GK10A uses a highly-durable conductive protective film to handle label papers with top-coatings. With ROHM's partial glaze construction, the KF2004-GK10A is a compact and lightweight thick-film thermal print head with printing speeds up to 3 inch / second.

ApplicationsApplicationsPOS terminalsLabel printers

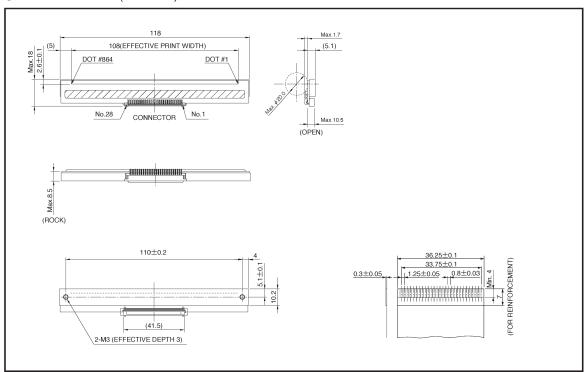
CAT terminals

Multi-purpose small-sized printers

Features

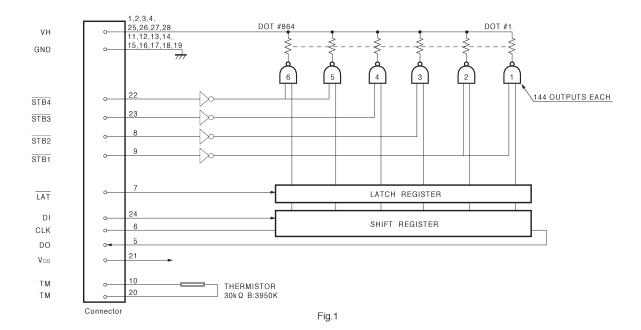
- 1) The use of the newly developed highly-durable conductive protective film has improved countermeasures against static electricity (ESD).
- Acheives an even smaller size and lighter weight by ROHM's original clip connector design and newly developed FFC (full flat cable) specifications.
- A newly developed 144-bit IC levels the strobe partition and reduces the noise level.
- 4) One rank resistance value of 1500 $\Omega\pm3\%$ eliminates the inconvenience of rank selection.
- 5) 2-inch, 3-inch, 4-inch, and 8-inch series are available.

External dimensions (Units: mm)



Printheads KF2004-GK10A

Equivalent circuit



Pin assignments

| No. | Circuit | | |
|-----|---------|--|--|
| 1 | VH | | |
| 2 | VH | | |
| 3 | VH | | |
| 4 | VH | | |
| 5 | DO | | |
| 6 | CLK | | |
| 7 | LAT | | |
| 8 | STB2 | | |
| 9 | STB1 | | |
| 10 | ТМ | | |
| 11 | GND | | |
| 12 | GND | | |
| 13 | GND | | |
| 14 | GND | | |

| No. | Circuit | | | |
|-----|-----------------|--|--|--|
| 15 | GND | | | |
| 16 | GND | | | |
| 17 | GND | | | |
| 18 | GND | | | |
| 19 | GND | | | |
| 20 | TM | | | |
| 21 | V _{DD} | | | |
| 22 | STB4 | | | |
| 23 | STB3 | | | |
| 24 | DI | | | |
| 25 | VH | | | |
| 26 | VH | | | |
| 27 | VH | | | |
| 28 | VH | | | |

Printheads KF2004-GK10A

Timing chart

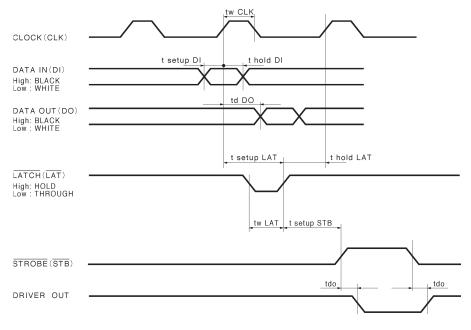


Fig.2

Characteristics

| Parameter | | Typical | Unit |
|---|------|------------------------|-------------|
| Effective printing width | | 108.0 | mm |
| Dot pitch | _ | 0.125 | mm |
| Total dot number | _ | 864 | dots |
| Average resistance value | Rave | 1500 | Ω |
| Applied voltage | Vн | 24.0 | V |
| Applied power | Po | 0.30 | W / dot |
| Print cycle | SLT | 1.67 | ms |
| Pulse width | Ton | 0.80 | ms |
| Maximum number of dots energized simultaneously | _ | 432 | dots |
| Maximum clock frequency | _ | 4 | MHz |
| Maximum roller diameter | _ | φ 14.0 | mm |
| Running life / pulse life | _ | 50 / 5×10 ⁷ | km / pulses |
| Operating temperature | _ | 5~45 | °C |

Printheads KF2004-GK10A

Electrical characteristic curves

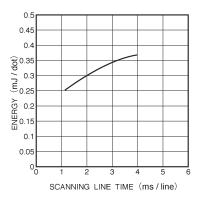


Fig. 3 Adaptive speed chart

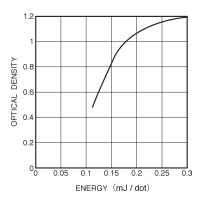


Fig. 4 Representative density curve

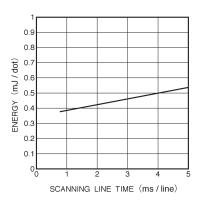


Fig. 5 Maximum energy curve

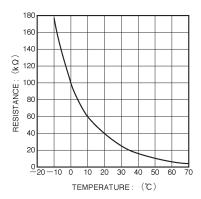


Fig. 6 Thermistor curve