

Printheads

High Speed Thermal Printhead (8dots / mm)

SE2004-DC90A

High speed, high quality, and high durability are achieved by using step free structure with high performance partial glaze and highly conductive overcoat layer. SE200*-DC90A series are lined up which can accommodate with all types of barcode labeling printers from Direct to Thermal Transfer, normal to high speed (over 300mm/s).

●Applications

Bar code label printers

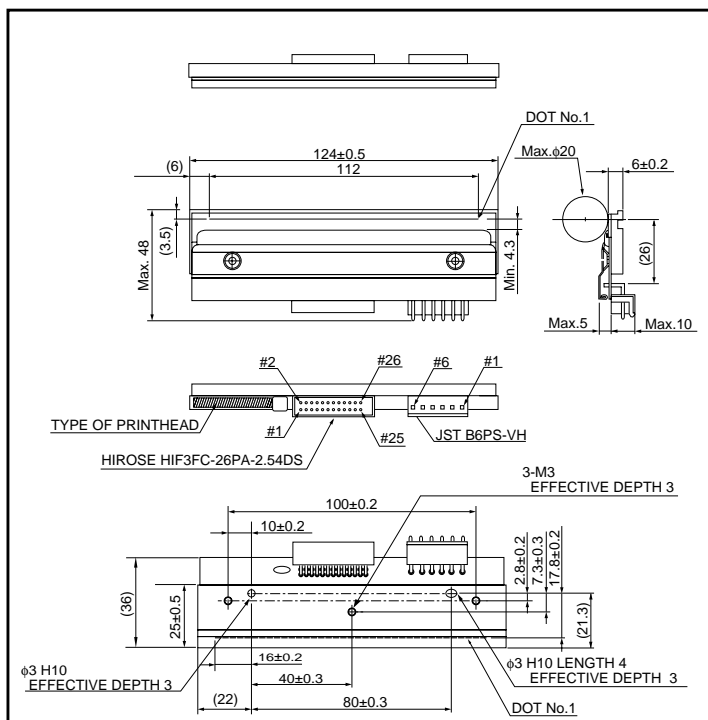
Ticket printers

General purpose compact printers

●Features

- 1) ROHM new technology "STEP FREE" structure will provide, high corrosion resistance, better resistance against scratching damage, high efficiency.
- 2) Standard glazed components to accommodate thick paper.
- 3) High speed clock to facilitate external heat history control.
- 4) Using a hard conductive film as a protective film on the heating element offers excellent resistance to electrostatic damage.
- 5) Compatible with the 300dpi in mechanical specifications, to facilitate the making of a series of printers.

●External dimensions (Unit : mm)



Note: No heat history control function inside the thermal printhead. External heat history control is required for high speed printing.

Printheads

●Characteristics

| Parameter | Symbol | Typical | Unit |
|---|----------------|------------------------|-------------|
| Effective printing width | | 112 | mm |
| Dot pitch | | 0.125 | mm |
| Total dot number | | 896 | dots |
| Average resistance value | Rave | 550 | Ω |
| Applied voltage | V _H | 24 | V |
| Applied power | P _o | 0.91 | W/dot |
| Print cycle | SLT | 0.42 | ms |
| Maximum number of dots energized simultaneously | | 896 | dots |
| Maximum clock frequency | | 10 | MHz |
| Maximum roller diameter | | 20 | mm |
| Running life / pulse life | | 50 / 1×10 ⁸ | km / pulses |
| Operating temperature | | 5 to 45 | °C |

●Pin configuration

HIROSE

| No. | Circuit | No. | Circuit |
|-----|---------|-----|---------|
| 1 | GND | 2 | VDD |
| 3 | DI2 | 4 | CLK(CP) |
| 5 | /LAT | 6 | /STB2 |
| 7 | NC | 8 | DI1 |
| 9 | /STB1 | 10 | NC |
| 11 | TM | 12 | TM |
| 13 | SENS3 | 14 | SENS2 |
| 15 | SENS1 | 16 | BEO |
| 17 | NC | 18 | NC |
| 19 | NC | 20 | NC |
| 21 | NC | 22 | NC |
| 23 | NC | 24 | NC |
| 25 | NC | 26 | NC |

JST

| No. | Circuit |
|-----|---------|
| 1 | COM |
| 2 | COM |
| 3 | COM |
| 4 | GND |
| 5 | GND |
| 6 | GND |

Printheads

●Timing chart

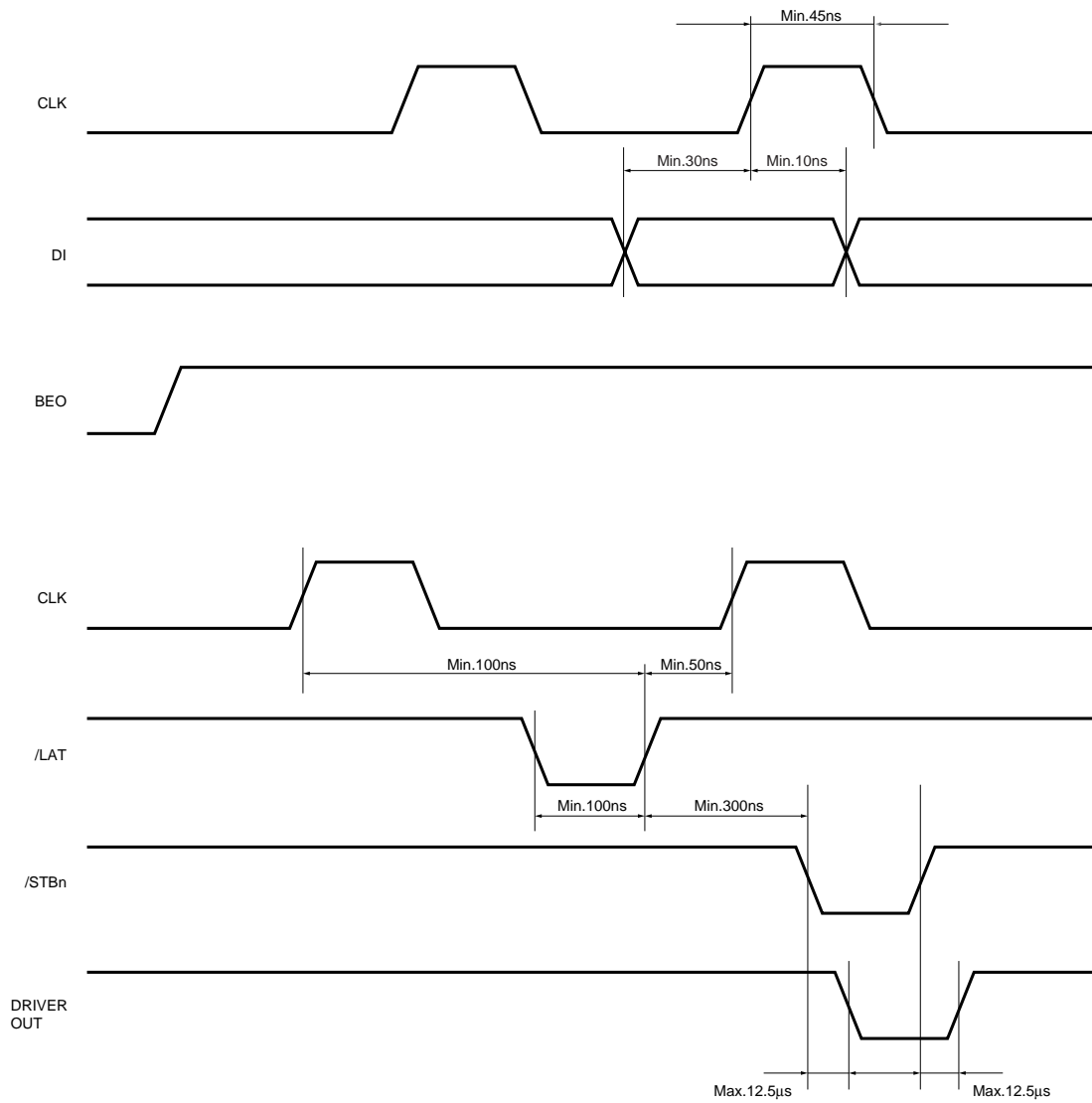
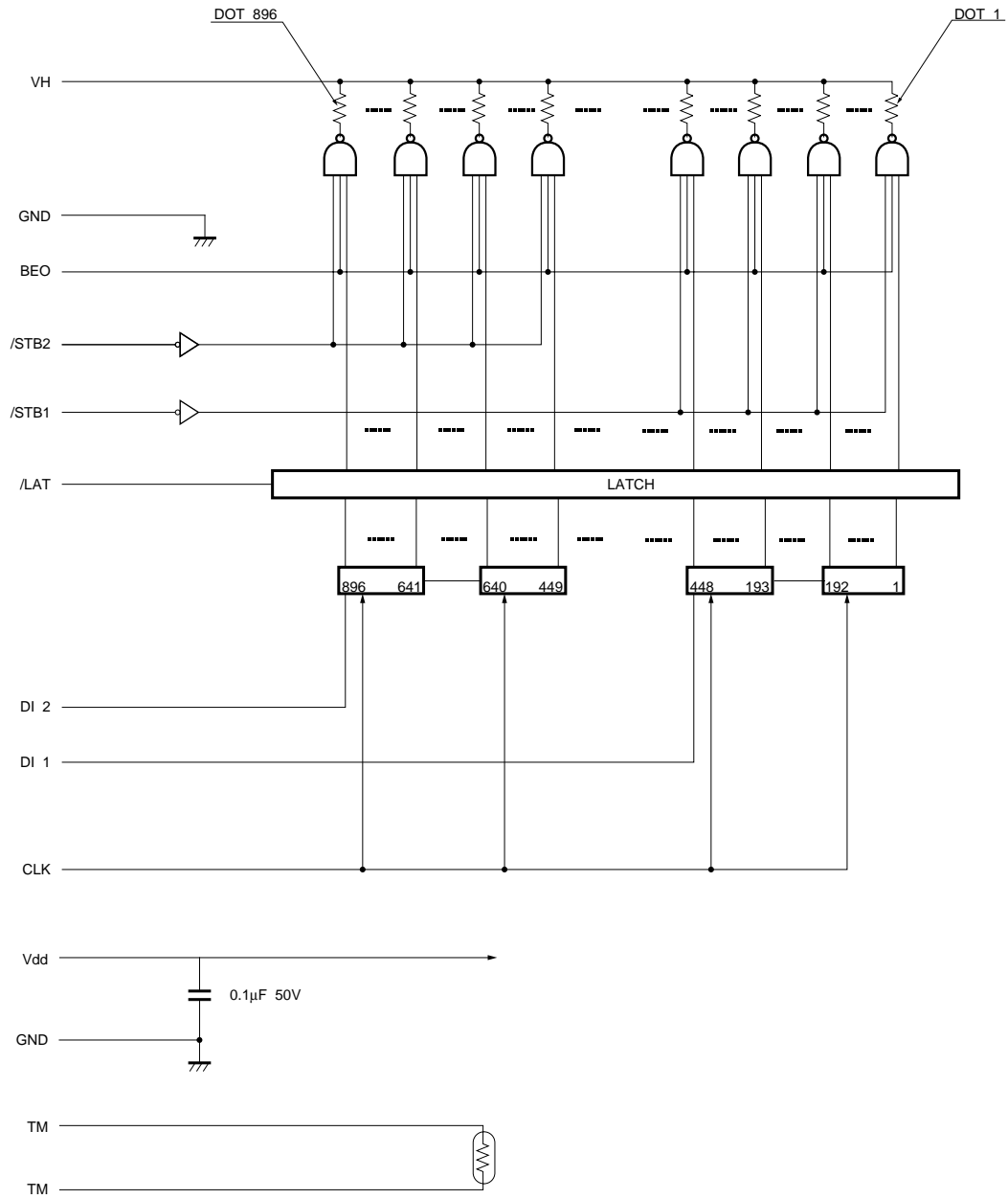


Fig.1

Printheads

●Equivalent circuit



| DI No. | DOT No. | /STR No. | DOT No. |
|--------|---------|----------|---------|
| DI 2 | 896~449 | /STB2 | 896~449 |
| DI 1 | 448~ 1 | /STB1 | 448~ 1 |

Fig.2

Printheads

●Data sheet

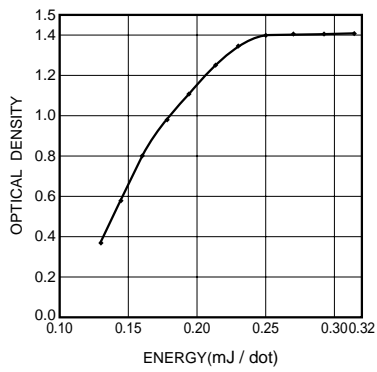


Fig. 3 Representative density curve

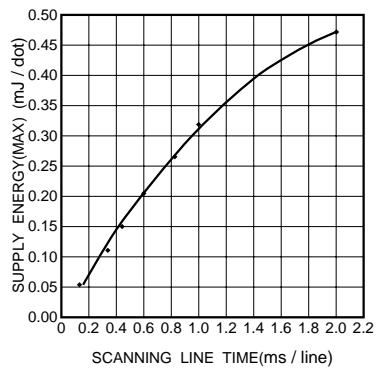


Fig. 4 Maximum energy curve

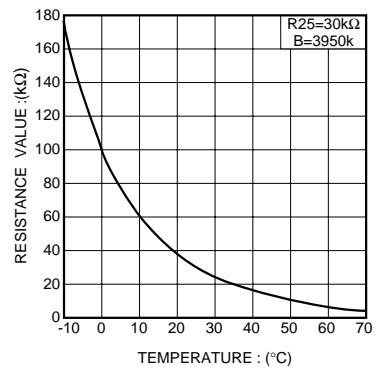


Fig. 5 Thermistor curve

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