

# Near edge thermal printhead (with thermal historical control)

## SH2004-DC70A

SH-DC70 series was developed with two key structures step-free and near edge for the packaging printer market which requires high speed continuous printing. It is suitable for printers in factory line where high speed 24 hours continuous printing is required.

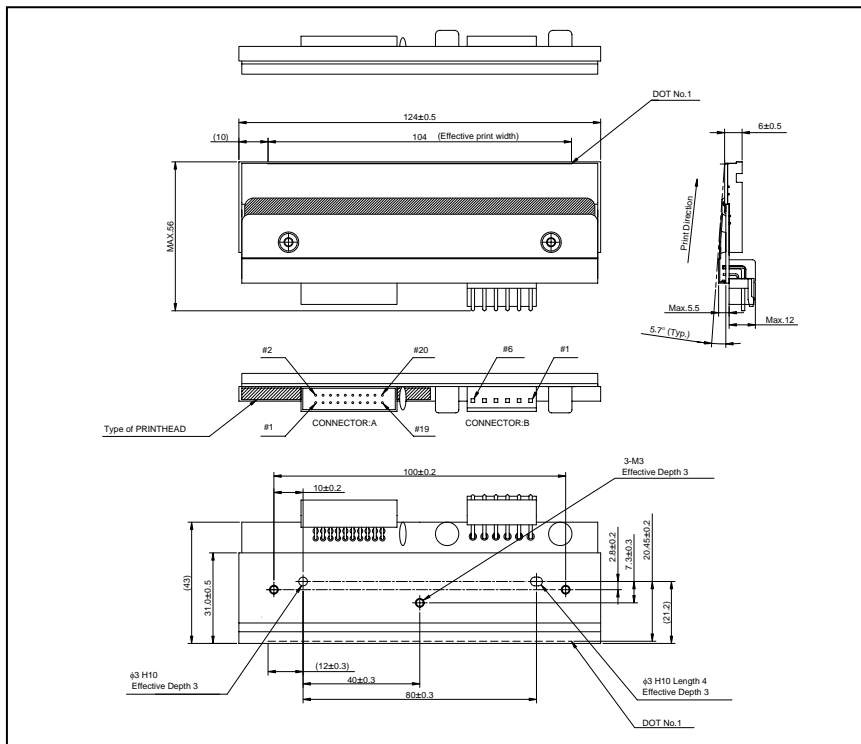
### ●Applications

Bar code printer  
Label printer  
Packaging printer  
ATM  
Ticket printer

### ●Features

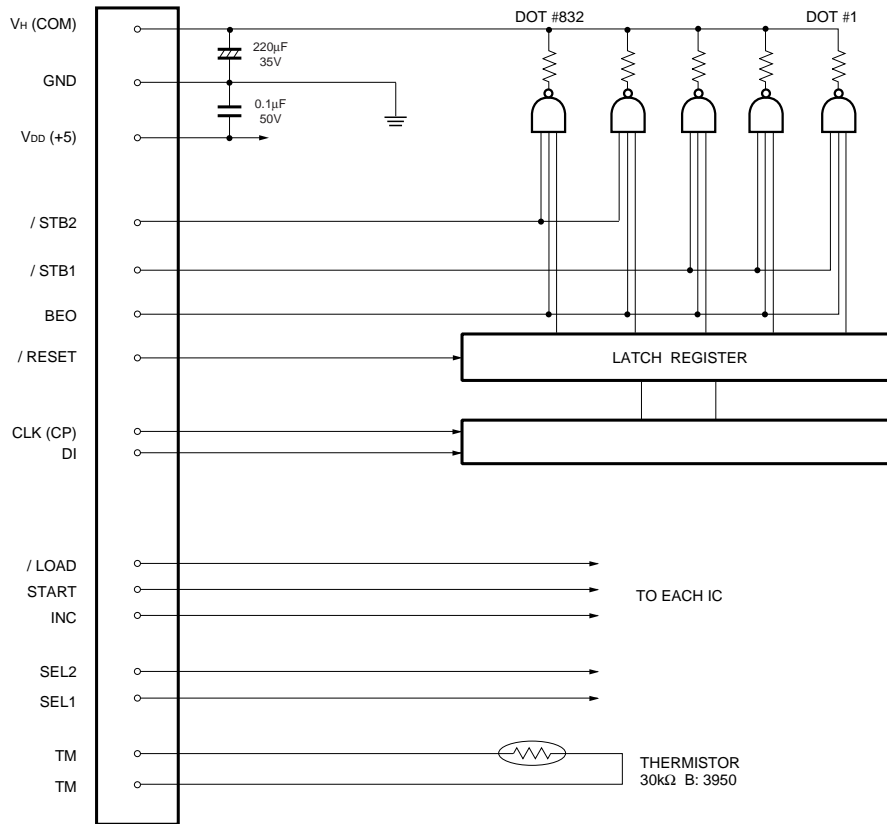
- 1) ROHM new technology "STEP FREE" structure will provide, high corrosion resistance, better resistance against scratching damage, high efficiency.
- 2) Head inclination by near-edge structure, applicable to the large-size platen. Resin type thermal-transfer ink-ribbon can be used.
- 3) High-hardness protect cote type "W-coat" is employed with 150km abrasion life-time.
- 4) A built in history-control functionality, high-speed printing up to 300mm / s can be achieved with clear print image.

### ●External dimensions (Unit : mm)



Printheads

●Equivalent circuit



| DI No. | DOT No.    |
|--------|------------|
| DI2    | 832 to 449 |
| DI1    | 448 to 1   |

| / STB No. | DOT No.    |
|-----------|------------|
| / STB2    | 832 to 449 |
| / STB1    | 448 to 1   |

●Pin assignments

CONNECTOR A

| No. | Circuit         | No. | Circuit |
|-----|-----------------|-----|---------|
| 1   | V <sub>DD</sub> | 2   | BEO     |
| 3   | GND             | 4   | DI2     |
| 5   | GND             | 6   | CLK(CP) |
| 7   | /LOAD           | 8   | START   |
| 9   | INC             | 10  | DI1     |
| 11  | SEL2            | 12  | SEL1    |
| 13  | /RESET          | 14  | / STB 2 |
| 15  | / STB 1         | 16  | TM      |
| 17  | TM              | 18  | SENS1   |
| 19  | SENS2           | 20  | SENS3   |

CONNECTOR B

| No. | Circuit              | No. | Circuit              |
|-----|----------------------|-----|----------------------|
| 1   | V <sub>H</sub> (COM) | 2   | V <sub>H</sub> (COM) |
| 3   | V <sub>H</sub> (COM) | 4   | GND                  |
| 5   | GND                  | 6   | GND                  |

## Printheads

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### ●Characteristics

| Parameter                                       | Symbol         | Typical                  | Unit      |
|---|----------------|--------------------------|-----------|
| Effective printing width                        | –              | 104.0                    | mm        |
| Dot pitch                                       | –              | 0.125                    | mm        |
| Total dot number                                | –              | 832                      | dots      |
| Average resistance value                        | Rave           | 550                      | Ω         |
| Applied voltage                                 | V <sub>H</sub> | 24                       | V         |
| Applied power                                   | P <sub>o</sub> | 0.86                     | W/dot     |
| Print cycle                                     | SLT            | 0.49                     | ms        |
| Maximum number of dots energized simultaneously | –              | 832                      | dots      |
| Maximum clock frequency                         | –              | 8                        | MHz       |
| Maximum roller diameter                         | –              | φ50                      | mm        |
| Running life / pulse life                       | –              | 150/(1×10 <sup>8</sup> ) | km/pulses |
| Operating temperature                           | –              | 5 to 45                  | °C        |

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