For Packaging High-speed Printers AH Series

AH2004-DC50A

Data Sheet

Ideal for packaging printers requiring high reliability.

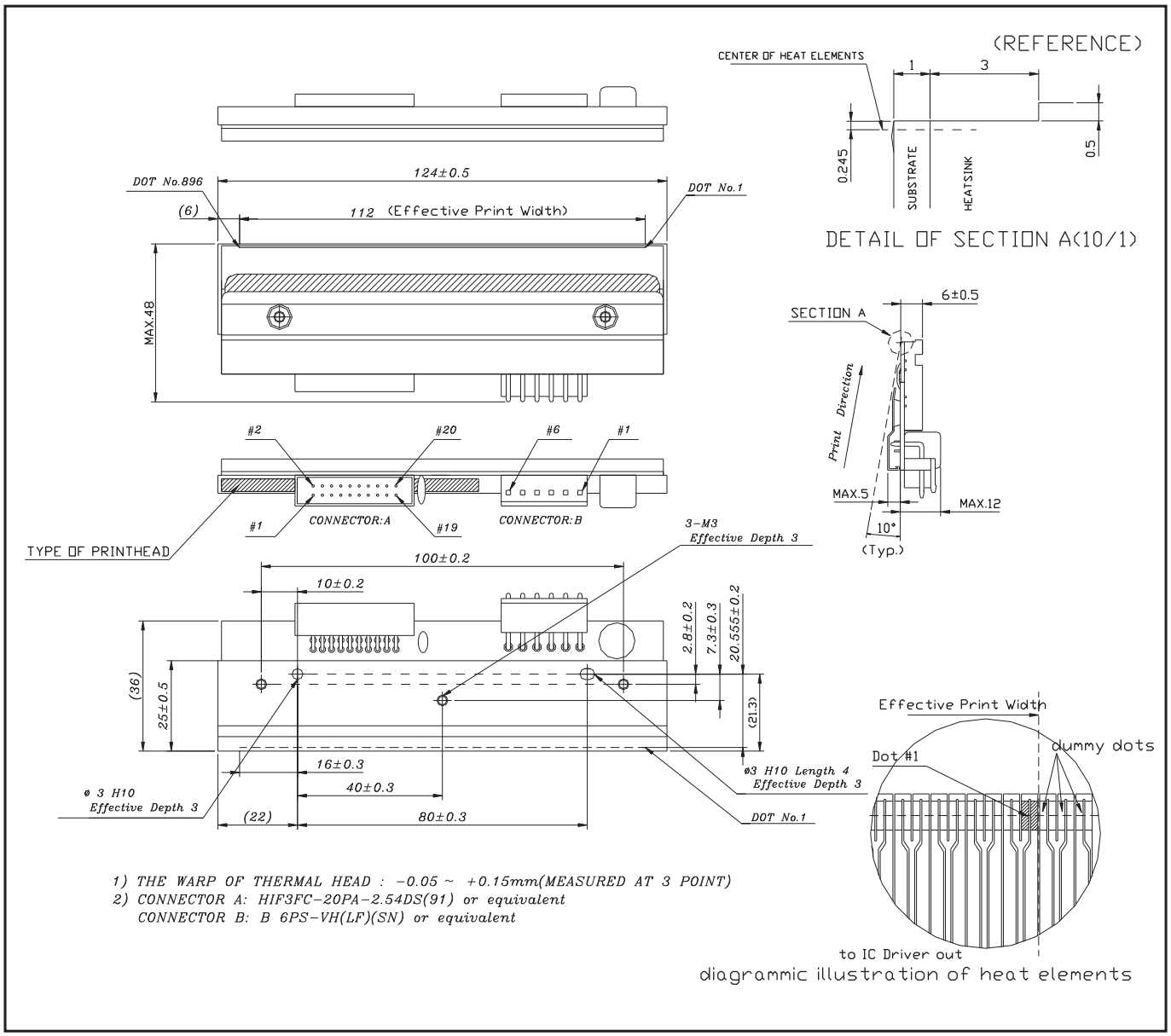
●Applications

Distribution / Food label printers
Packaging printers
Date-code printers

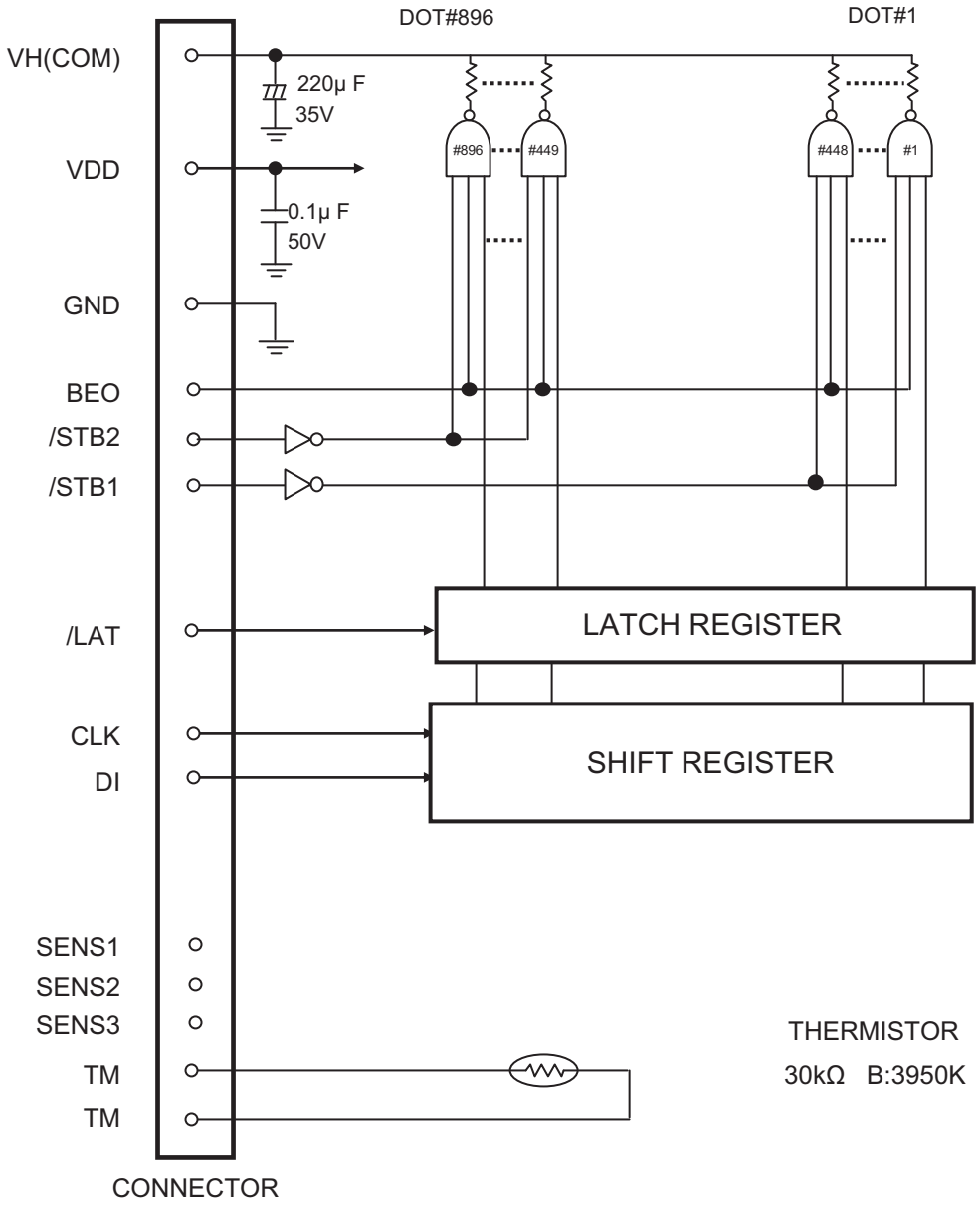
●Features

These thermal heads feature a near-edge structure based on the high-speed, high-quality, step-free SE, SF series, enabling straight path for hand media or high speed printing

●External dimensions (Unit : mm)



●**Equivalent circuit**



DI, STB DIVISION DOT No. CORRESPONDENCE

DI No.	DOT No.
DI	896 to 1

/STB No.	DOT No.
/STB 2	896 to 449
/STB 1	448 to 1

●**Pin assignments**

Connector A : HIF3FC-20PA-2.54DS(91) or equivalent

No.	Circuit	No.	Circuit
1	V_{DD}	2	BEO
3	GND	4	DI
5	N.C.	6	CLK
7	/LAT	8	GND
9	GND	10	N.C.
11	N.C.	12	GND
13	V_{DD}	14	/STB2
15	/STB1	16	TM
17	TM	18	SENS1
19	SENS2	20	SENS3

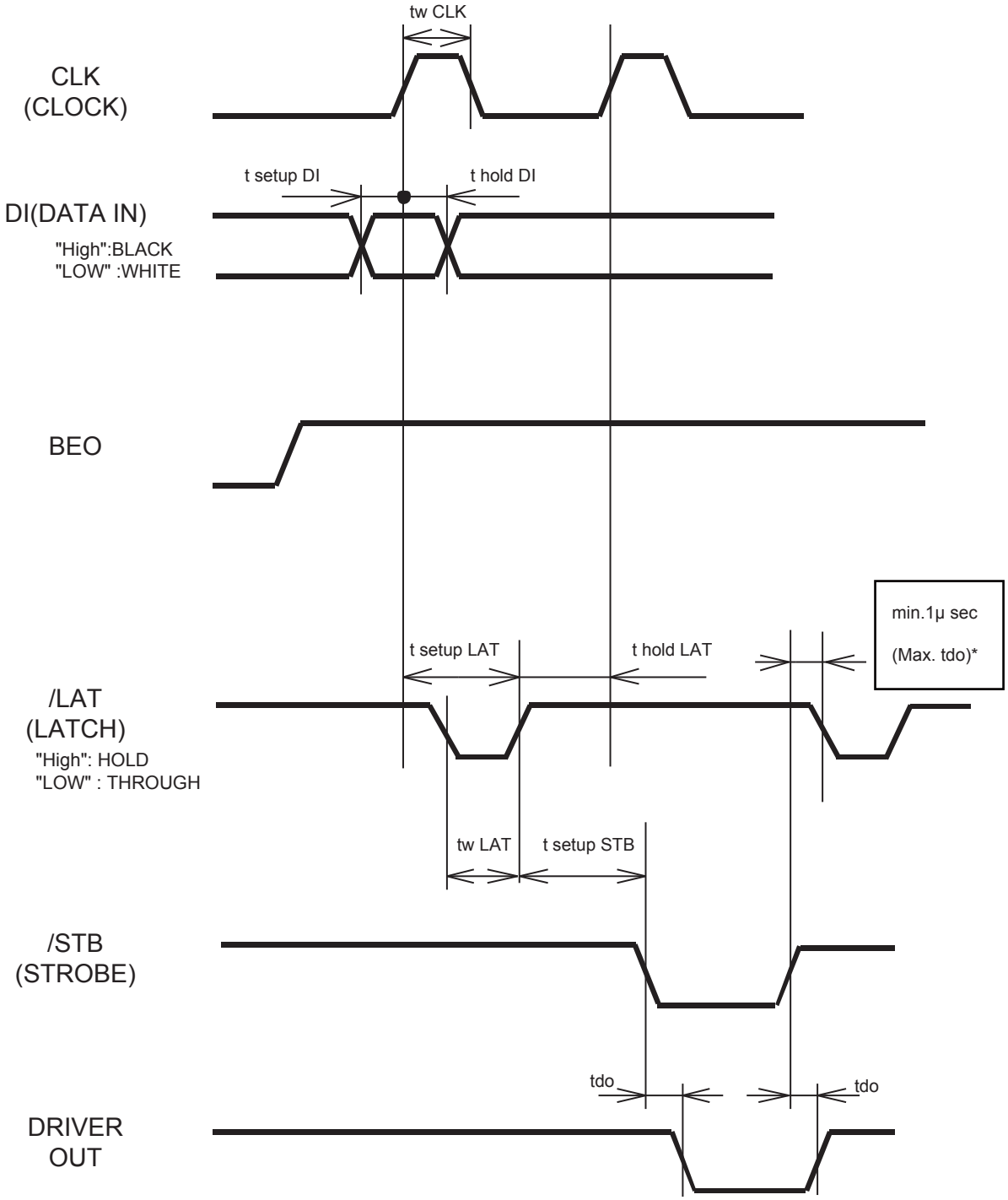
CONNECTOR B : B6PS-VH-2.2(LF)(SN) or equivalent

No.	Circuit	No.	Circuit
1	V_H	2	V_H
3	V_H	4	GND
5	GND	6	GND

Pin number : Refer to External dimensions

DI: Data In (Serial Input)
CLK : Clock Pulse(Max Transfer Frequency)
/LAT: Data Latch
TM: Thermistor
/STBn: Strobe
V_{DD} : Power Supply for Driver IC
N.C. : Non Connection

● **Timing Chart**



*If delay time for Driver Out can not be secured enough, there is a possibility that VH would fluctuate greatly. Please design the circuit so that VH does not exceed peak voltage (Vp).

●**Characteristics**

Parameter	symbol	Typical	Unit
Effective printing width	-	112	mm
Dot pitch	-	0.125	mm
Total dot number	-	896	dots
Average resistance value	R_{ave}	850	Ω
Applied voltage	V_H	24	V
Applied power	Po	0.58	W/dot
Print cycle	SLT	1.5	ms/line
Pulse width	T_{ON}	0.37	ms
Maximum number of dots energized simultaneously	-	896	dots
Maximum clock frequency	-	10	MHz
Maximum platen diameter	-	∞	mm
Running life / pulse life	-	$50/1\times10^{8}$	Km/pulse
Operating temperature	-	5 to 45	°C

Notes

1) The information contained herein is subject to change without notice.

2) Before you use our Products, please contact our sales representative and verify the latest specifications :

3) Although ROHM is continuously working to improve product reliability and quality, semiconductors can break down and malfunction due to various factors.
Therefore, in order to prevent personal injury or fire arising from failure, please take safety measures such as complying with the derating characteristics, implementing redundant and fire prevention designs, and utilizing backups and fail-safe procedures. ROHM shall have no responsibility for any damages arising out of the use of our Poducts beyond the rating specified by ROHM.

4) Examples of application circuits, circuit constants and any other information contained herein are provided only to illustrate the standard usage and operations of the Products. The peripheral conditions must be taken into account when designing circuits for mass production.

5) The technical information specified herein is intended only to show the typical functions of and examples of application circuits for the Products. ROHM does not grant you, explicitly or implicitly, any license to use or exercise intellectual property or other rights held by ROHM or any other parties. ROHM shall have no responsibility whatsoever for any dispute arising out of the use of such technical information.

6) The Products are intended for use in general electronic equipment (i.e. AV/OA devices, communication, consumer systems, gaming/entertainment sets) as well as the applications indicated in this document.

7) The Products specified in this document are not designed to be radiation tolerant.

8) For use of our Products in applications requiring a high degree of reliability (as exemplified below), please contact and consult with a ROHM representative : transportation equipment (i.e. cars, ships, trains), primary communication equipment, traffic lights, fire/crime prevention, safety equipment, medical systems, servers, solar cells, and power transmission systems.

9) Do not use our Products in applications requiring extremely high reliability, such as aerospace equipment, nuclear power control systems, and submarine repeaters.

10) ROHM shall have no responsibility for any damages or injury arising from non-compliance with the recommended usage conditions and specifications contained herein.

11) ROHM has used reasonable care to ensur the accuracy of the information contained in this document. However, ROHM does not warrants that such information is error-free, and ROHM shall have no responsibility for any damages arising from any inaccuracy or misprint of such information.

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ROHM SEMICONDUCTOR

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