

High Speed Thermal Printhead (8dots / mm)

SE2003-DC94A

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*-DC94A 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).

Implementation of ROHM Unique technology, Anti Sticking Treatment, reduces sticking problems (print skip at media feed direction) under the tough print conditions at low print speed, using label media with over coated.

●Applications

Bar code label printers

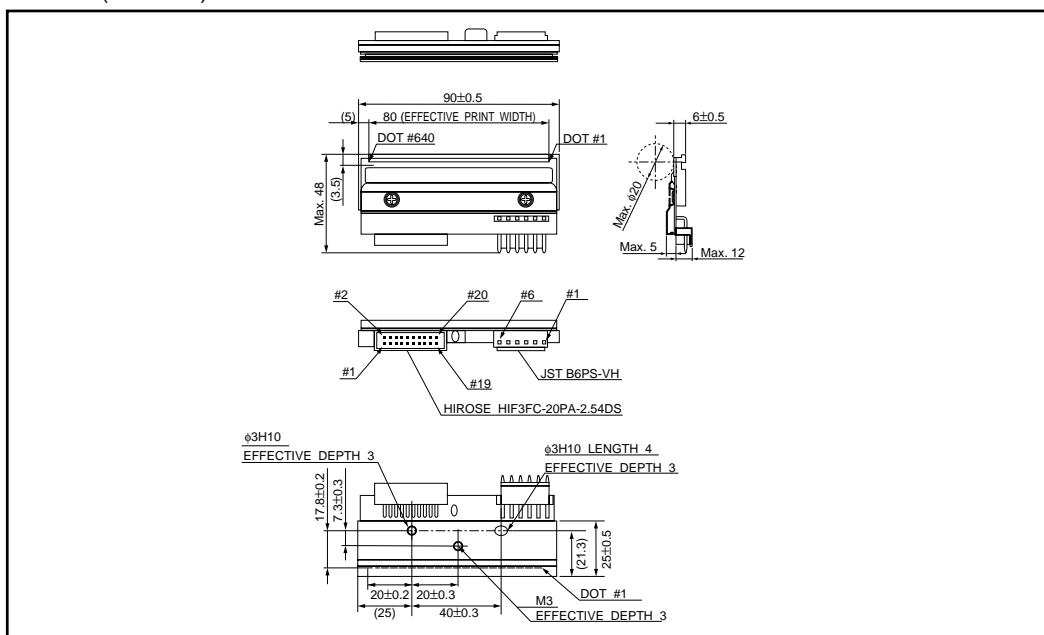
Ticket printers

General purpose compact printers

●Features

- 1) Anti Sticking Treatment reduces sticking problems and achieves high print quality at any environmental conditions.
- 2) ROHM new technology "STEP FREE" structure will provide, high corrosion resistance, better resistance against scratching damage, high efficiency.
- 3) Standard glazed components to accommodate thick paper.
- 4) Using a hard conductive film as a protective film on the heating element offers excellent resistance to electrostatic damage.
- 5) Compatible with the SE3003-DC90A 300dpi in mechanical specifications, to facilitate the making of a series of printers.

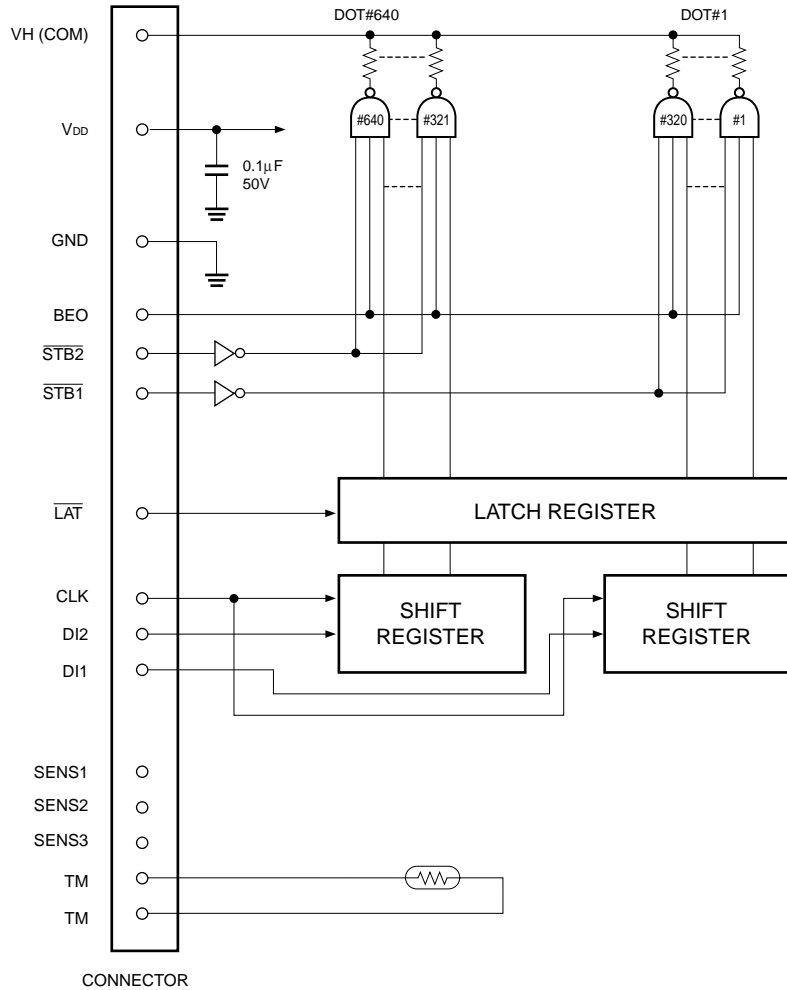
●Dimensions (Unit : mm)



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

Printheads

●Equivalent circuit



DI No.	DOT No.
DI2	640 to 321
DI1	320 to 1

STB No.	DOT No.
STB2	640 to 321
STB1	320 to 1

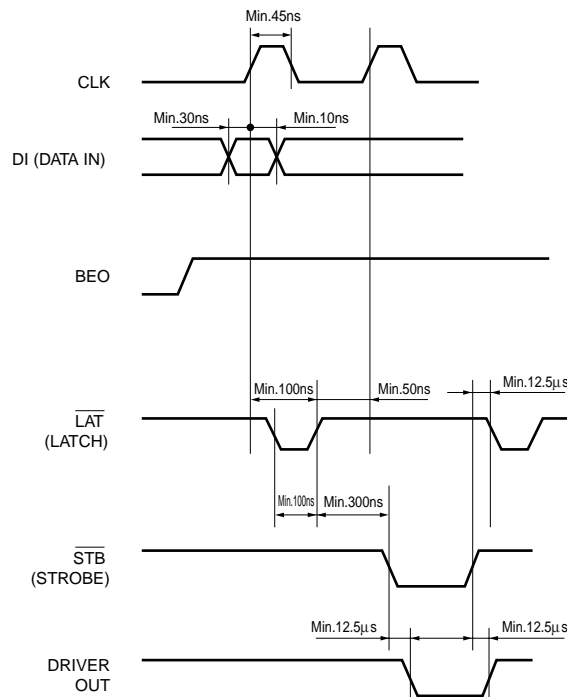
Printheads

●Pin configuration

HIROSE			
No.	Circuit	No.	Circuit
1	V _{DD}	2	BEO
3	GND	4	DI2
5	N.C.	6	CLK
7	$\overline{\text{LA}}$	8	GND
9	GND	10	DI1
11	N.C.	12	GND
13	V _{DD}	14	$\overline{\text{STB2}}$
15	$\overline{\text{STB1}}$	16	TM
17	TM	18	SENS1
19	SENS2	20	SENS3

JST	
No.	Circuit
1	VH
2	VH
3	VH
4	GND
5	GND
6	GND

●Timing chart



Printheads

●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	0.899	W / dot
Print cycle	SLT	0.42	ms
Maximum number of dots energized simultaneously	–	448	dots
Maximum clock frequency	–	10	MHz
Maximum roller diameter	–	20	mm
Running life / pulse life	–	50 / 10 ⁸	km / pulses
Operating temperature	–	5 to 45	°C

●Electrical characteristics curves

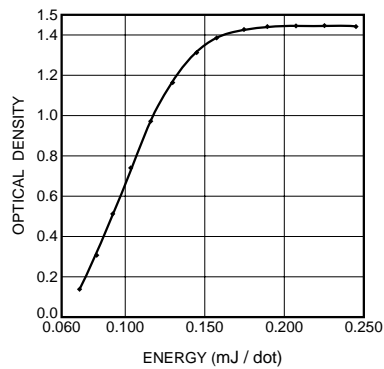


Fig. 1 Representative density curve

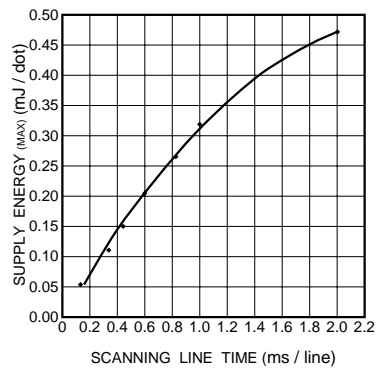


Fig. 2 Maximum energy curve

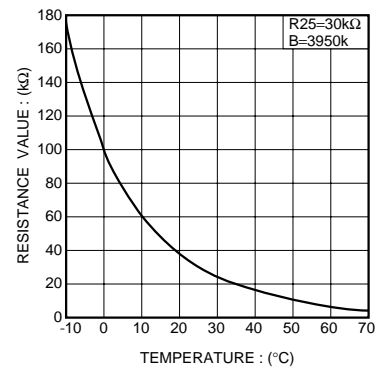


Fig. 3 Thermistor curve

Notes

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