

## Near edge thermal printhead (8 dots / mm)

### NE2001-VA20A

The NE2001-VA20A is a near edge thin-film thermal printhead where the printing medium passes straight through, suited for card printers.

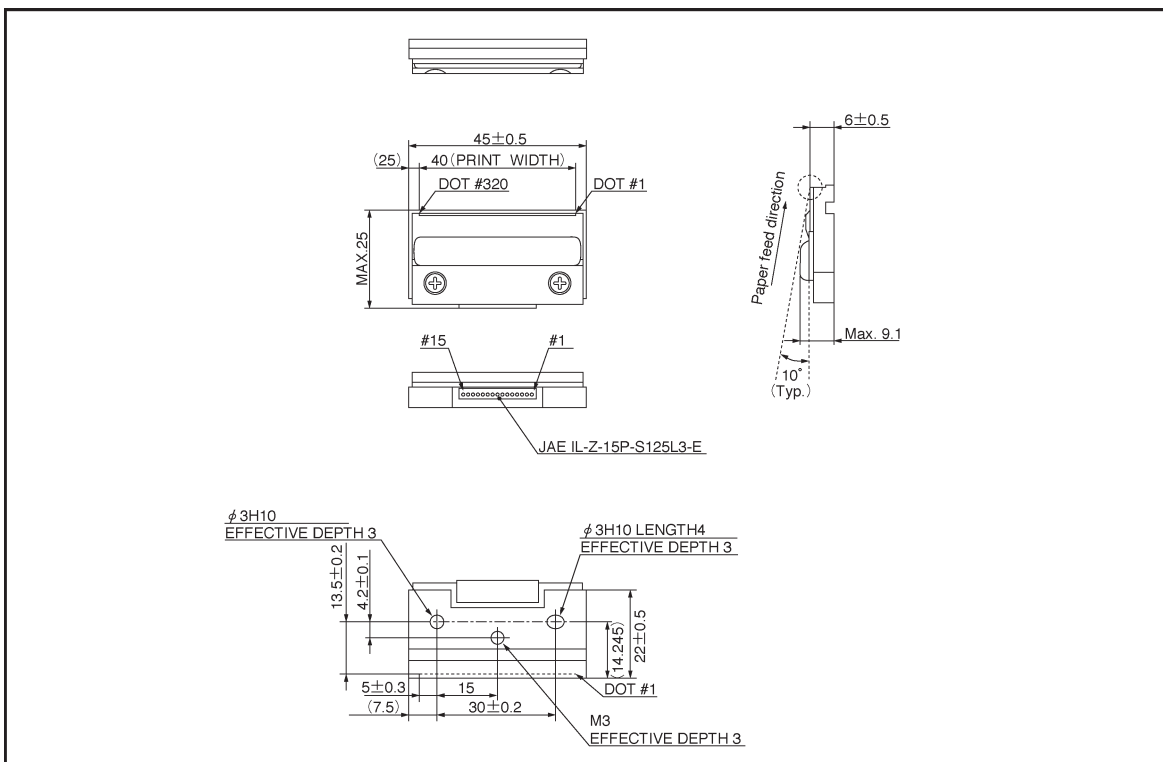
#### ●Applications

Card printers  
Handy printers  
Ticket printers  
Label printers

#### ●Features

- 1) Inclined toward the printing surface to provide excellent printing quality even for cards and thick paper.
- 2) Prints directly on printing medium that cannot be bent.
- 3) Using a hard conductive film as a protective film on the heating element offers excellent resistance to electrostatic damage.
- 4) Being low-profile when installed enables smaller printers.

#### ●External dimensions (Units: mm)



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

## ●Characteristics

Parameter	Symbol	Typical	Unit
Effective printing width	—	40	mm
Dot pitch	—	0.125	mm
Total dot number	—	320	dots
Average resistance value	Rave	850	Ω
Applied voltage	V <sub>H</sub>	12	V
Applied power	P <sub>O</sub>	0.150	W / dot
Print cycle	SLT	2.00	ms
Pulse width	T <sub>ON</sub>	1.5	ms
Maximum number of dots energized simultaneously	—	320	dots
Maximum clock frequency	—	10	MHz
Maximum roller diameter	—	—	mm
Running life / pulse life	—	50 / 10 <sup>8</sup>	km / pulses
Operating temperature	—	5~45	°C

## ●Pin assignments

CONNECTOR	
No.	Circuit
1	VH
2	VH
3	LA
4	GND
5	GND
6	STB1
7	V <sub>DD</sub>
8	STB2
9	TM
10	GND
11	GND
12	DI
13	CLK
14	VH
15	VH

## Timing chart

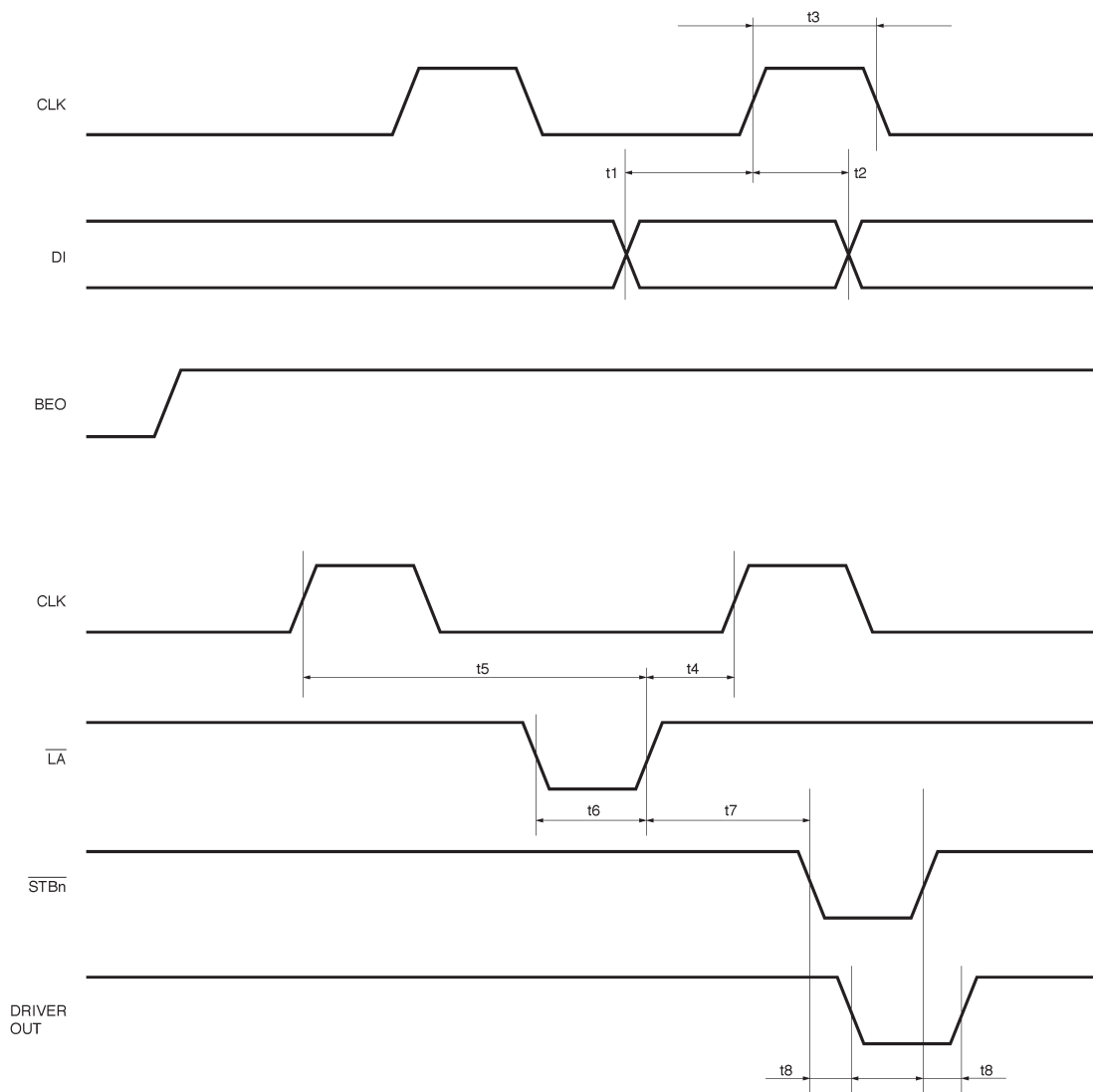
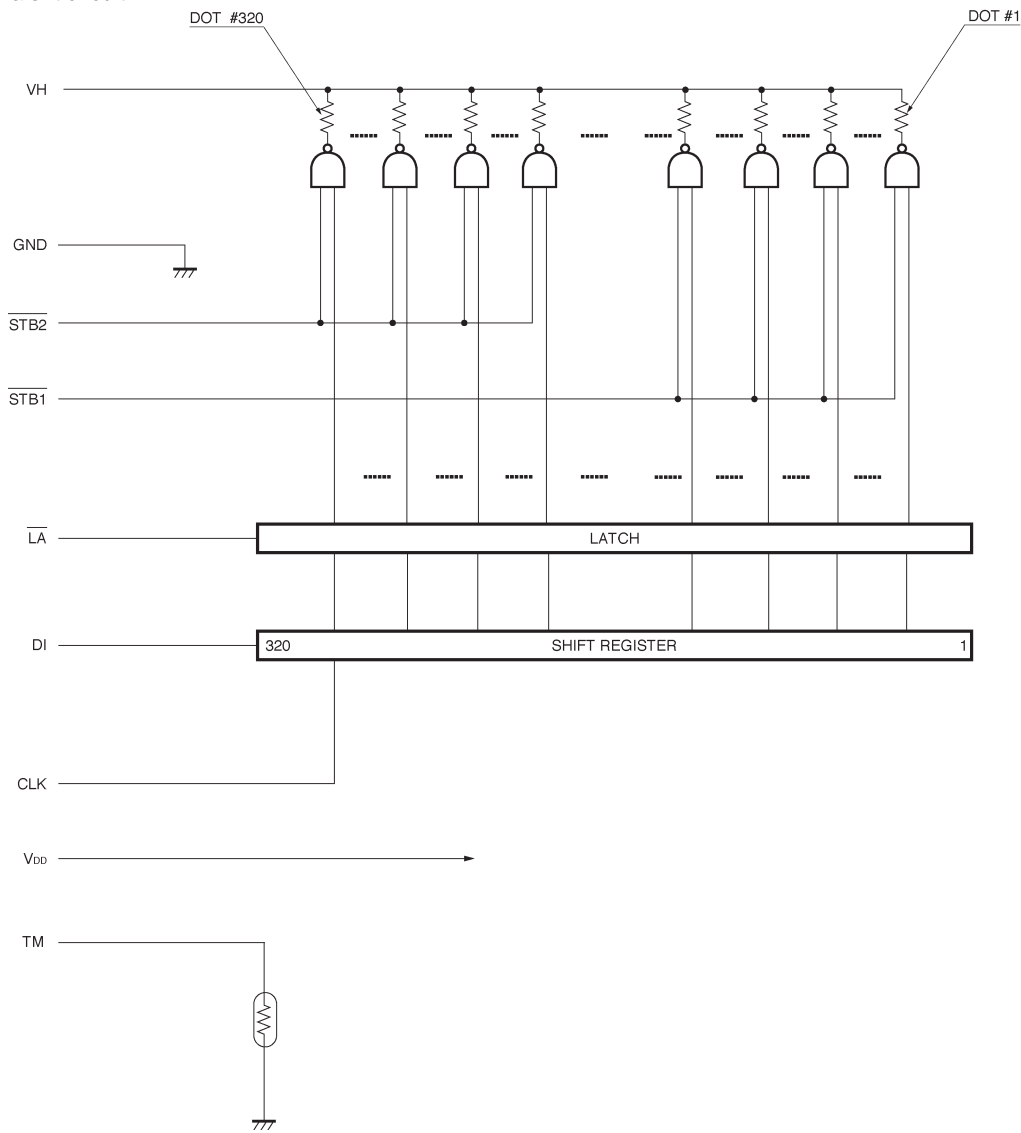


Fig.1

●Equivalent circuit



DI No.	DOT No.
DI	320~1

STB No.	DOT No.
STB 2	320~193
STB 1	192~ 1

Fig. 2

## ●Electrical characteristic curves

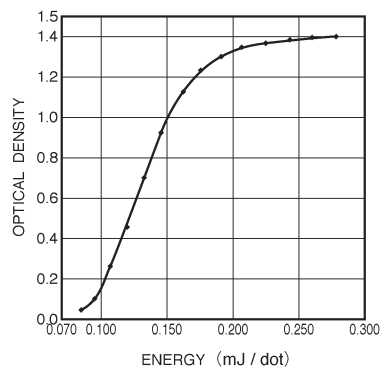


Fig. 3 Representative density curve

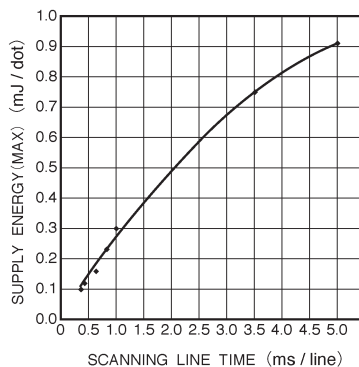


Fig. 4 Maximum energy curve

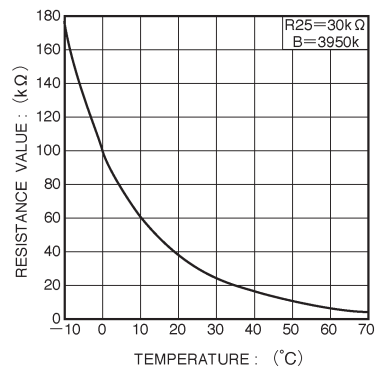


Fig. 5 Thermistor curve