

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.

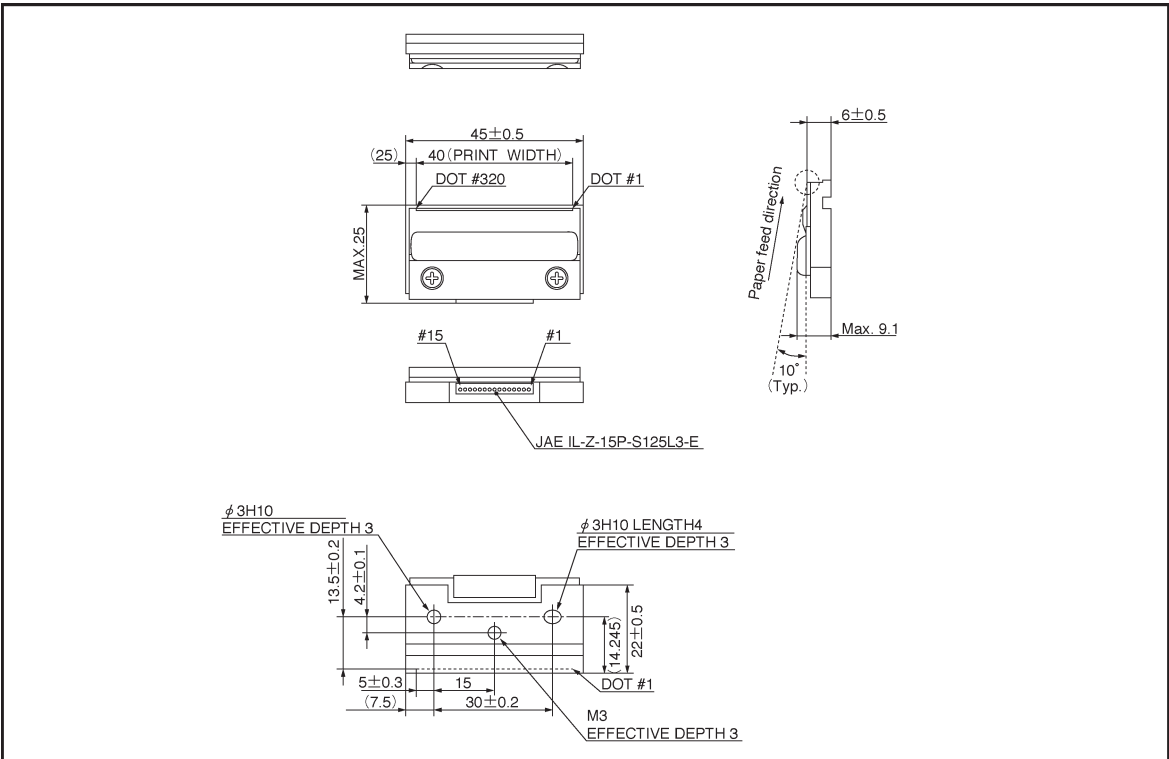
●Applications

- 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	R _{ave}	850	Ω
Applied voltage	V _H	12	V
Applied power	P _O	0.150	W / dot
Print cycle	SLT	2.00	ms
Pulse width	T _{ON}	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 ⁸	km / pulses
Operating temperature	—	5~45	°C

●Pin assignments

CONNECTOR

No.	Circuit
1	VH
2	VH
3	$\overline{\text{LA}}$
4	GND
5	GND
6	$\overline{\text{STB1}}$
7	V _{DD}
8	$\overline{\text{STB2}}$
9	TM
10	GND
11	GND
12	DI
13	CLK
14	VH
15	VH

● Timing chart

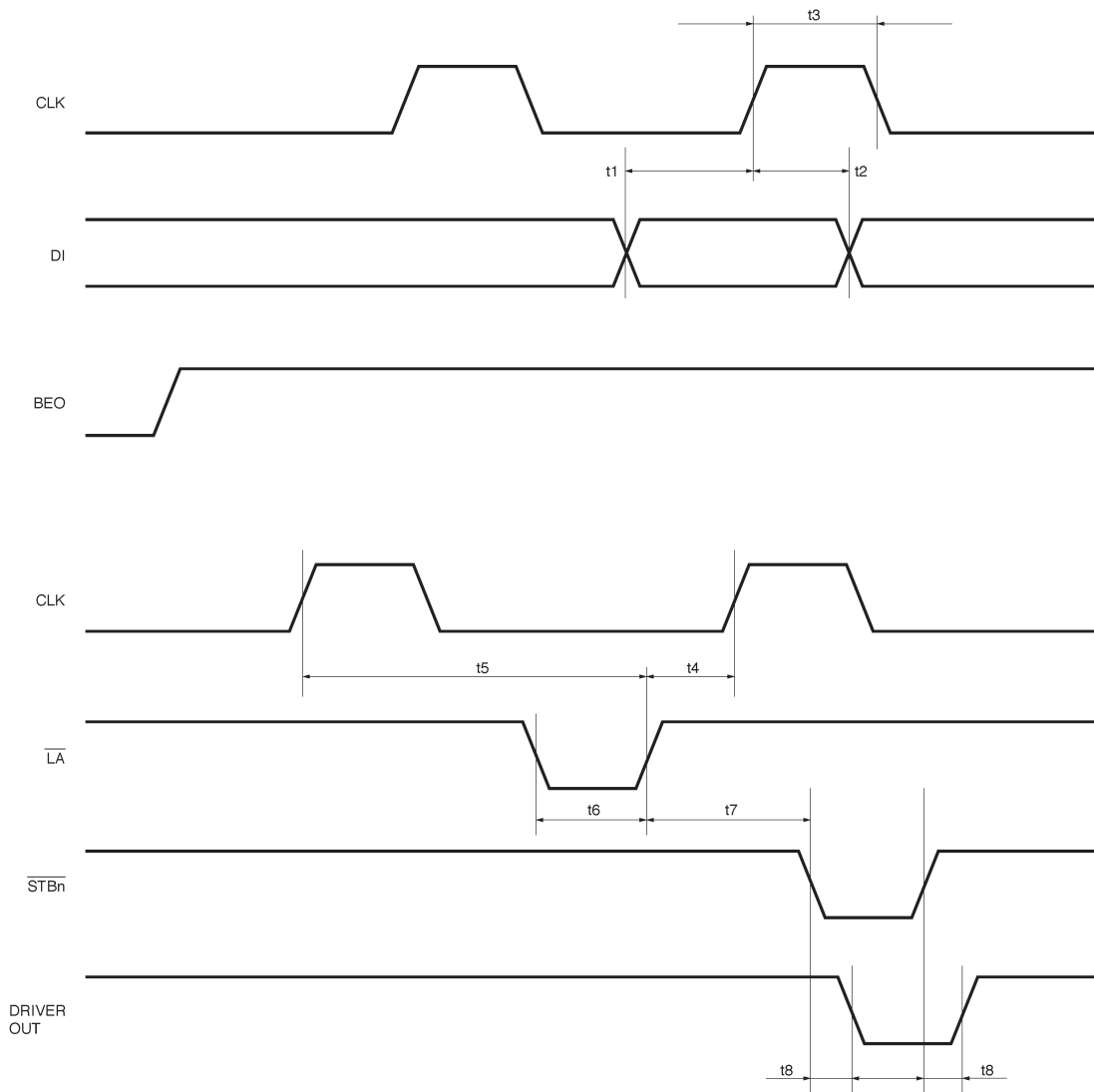
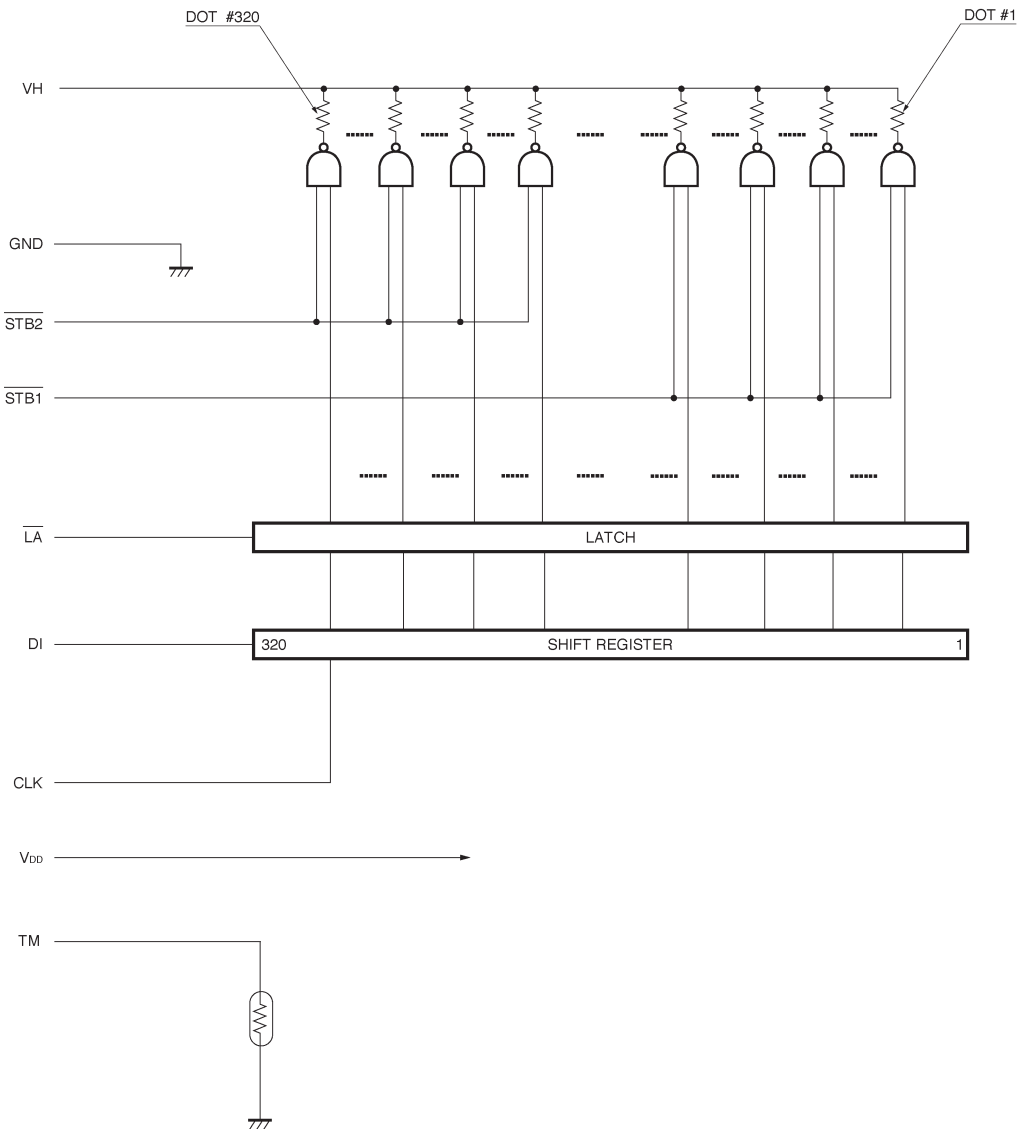


Fig.1

●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

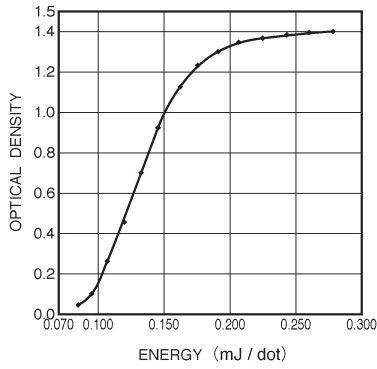


Fig. 3 Representative density curve

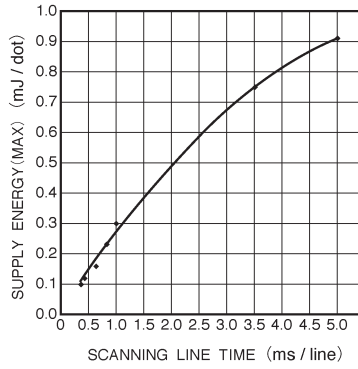


Fig. 4 Maximum energy curve

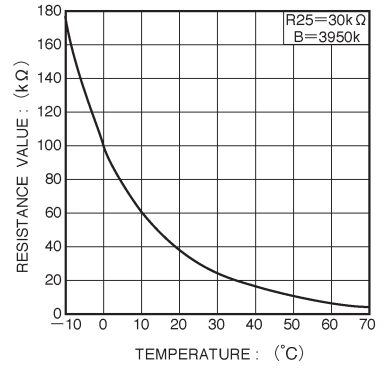


Fig. 5 Thermistor curve