

Near edge thermal printhead (300 dots / inch)

NE3004-VA10A

The NE3004-VA10A is a near edge thin-film thermal printhead where the printing medium passes straight through. This printhead is capable of printing speeds up to 8 inch / second and is suited for label printers.

●Applications

Bar code printers

Card printers

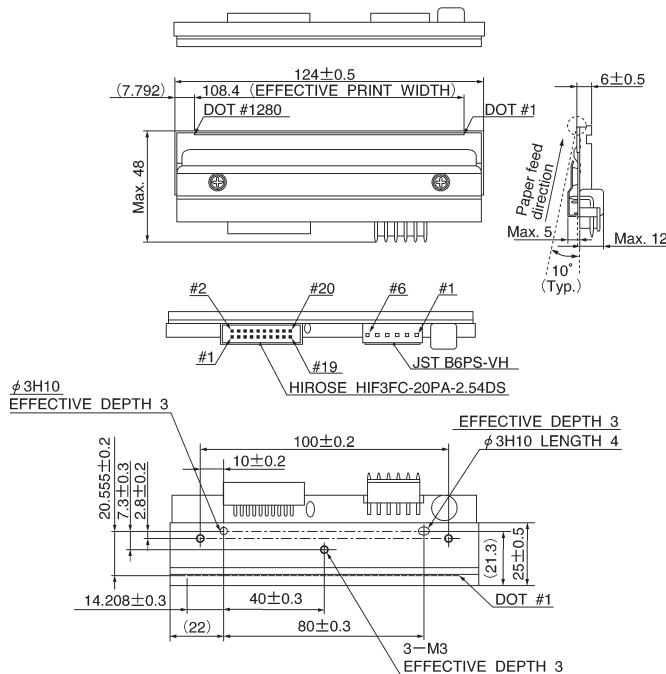
Ticket printers

General purpose compact 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 heading element of-
fers excellent resistance to electrostatic damage.
- 4) Being low-profile when installed enables smaller printers.
- 5) Compatible with the NE2004-VA10A (8 dots / mm) in mechanical specifica-
tions, to facilitate the making of a series of 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	—	108.4	mm
Dot pitch	—	0.0847	mm
Total dot number	—	1280	dots
Average resistance value	Rave	1250	Ω
Applied voltage	V _H	24	V
Applied power	P _O	0.41	W / dot
Print cycle	SLT	1.5	ms
Pulse width	T _{ON}	0.31	ms
Maximum number of dots energized simultaneously	—	1280	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

HIROSE

No.	Circuit	No.	Circuit
1	V _{DD}	2	BEO
3	GND	4	DI
5	N.C.	6	CLK
7	LA	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

JST

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

●Timing chart

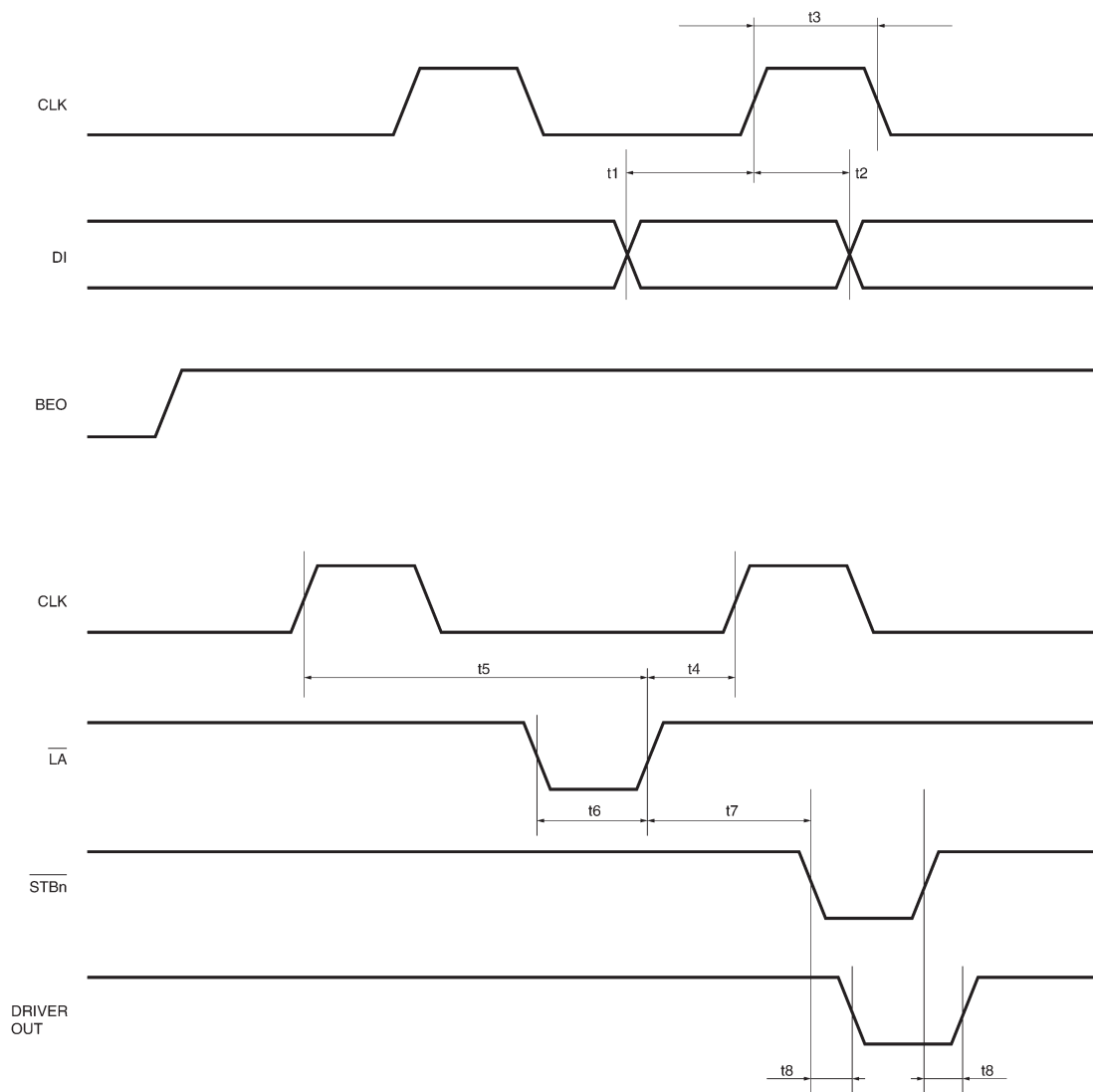


Fig.1

DOT #1280

DOT #1

VH

220 μ F 35V

GND

BEO

STB2

STB1

LA

LATCH

1280 641

640 1

DI 2

DI 1

CLK

V_{DD}

0.1 μ F 50V

GND

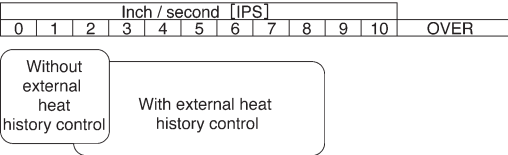
TM

TM

DI No.	DOT No.	STB No.	DOT No.
DI 2	1280~641	STB 2	1280~641
DI 1	640~ 1	STB 1	640~ 1

4

●Supported speeds chart



●Electrical characteristic curves

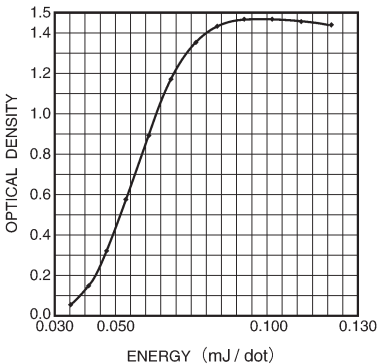


Fig. 3 Representative density curve

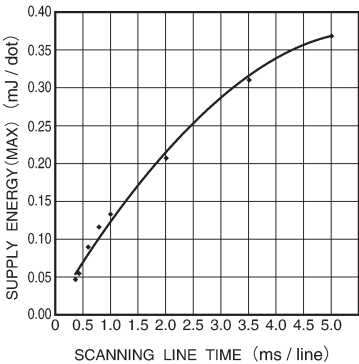


Fig. 4 Maximum energy curve

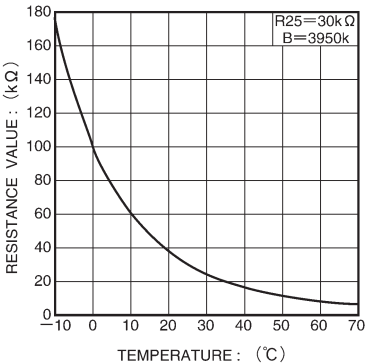


Fig. 5 Thermistor curve