

# High speed thermal printhead (with thermal historical control)

## NF3002-WA30A

NF-WA30 series are the thermal printheads developed for high-speed / high-resolution printing for the market of bar-code printer & scale-printer, based on "step-free" structure.

These printheads realize ultra-highspeed printing with long life & high reliability.

### ●Applications

Bar code printer

Label printer

Packaging printer

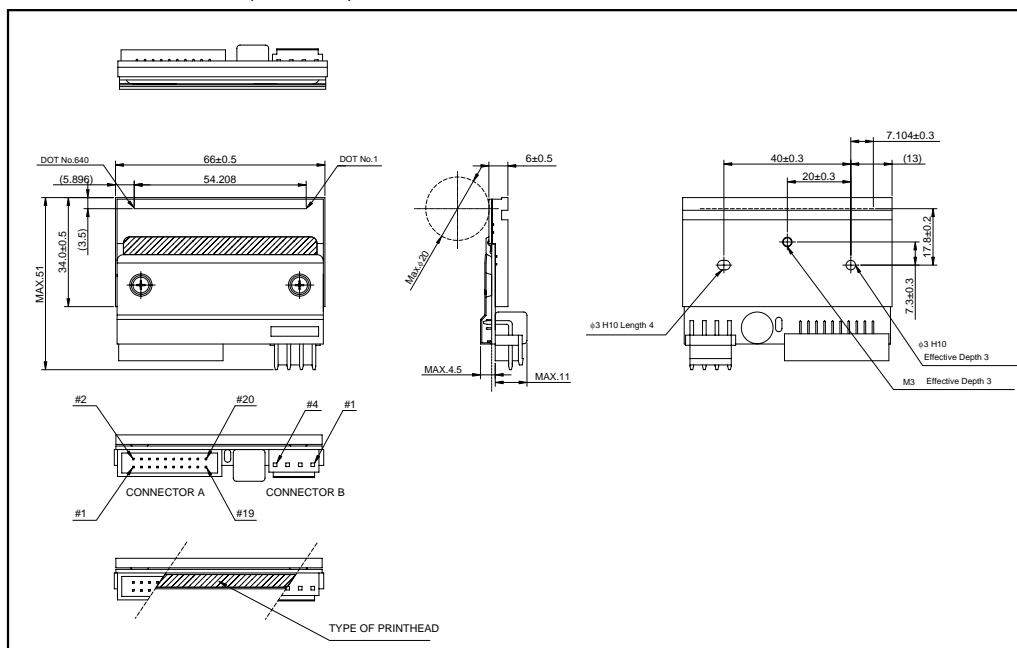
ATM

Ticket printer

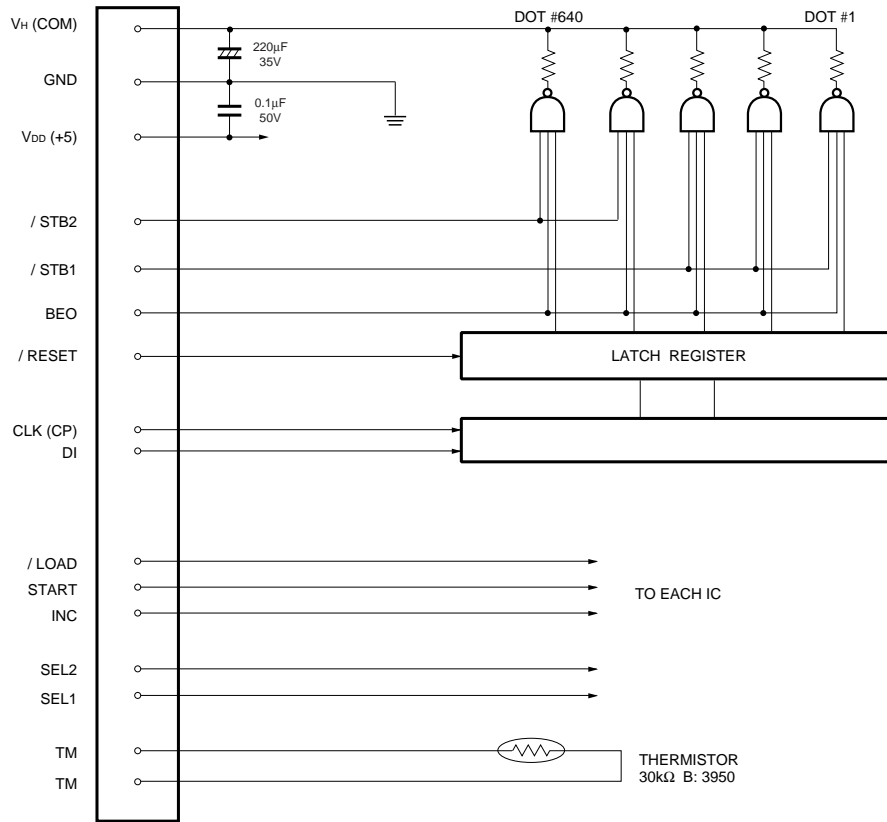
### ●Features

- 1) High dot reproducibility with step-free structure.
- 2) High-hardness protect cote type "W-coat" is employed with 150km abrasion life-time.
- 3) Even without history-control, high-speed printing more than 300mm / s can be achieved at 300dpi with clear print image. With history-control, 500mm / s printing is also possible at 300dpi.

### ●External dimensions (Unit : mm)



●Equivalent circuit



DI, STB DIVISION DOT No. CORRESPONDENCE

DI No.	DOT No.	/ STB No.	DOT No.
DI	640 to 1	/ STB2	640 to 385
		/ STB1	384 to 1

●Pin assignments

CONNECTOR A

No.	Circuit	No.	Circuit
1	V <sub>DD</sub>	2	BEO
3	GND	4	DI
5	GND	6	CLK(CP)
7	/LOAD	8	START
9	INC	10	N.C.
11	SEL2	12	SEL1
13	/RESET	14	/ STB 2
15	/ STB 1	16	TM
17	TM	18	SENS1
19	SENS2	20	SENS3

CONNECTOR B

No.	Circuit	No.	Circuit
1	V <sub>H</sub> (COM)	2	V <sub>H</sub> (COM)
3	GND	4	GND

## Printheads

## ●Characteristics

Parameter	Symbol	Typical	Unit
Effective printing width	–	54.2	mm
Dot pitch	–	0.0847	mm
Total dot number	–	640	dots
Average resistance value	Rave	850	Ω
Applied voltage	V <sub>H</sub>	24	V
Applied power	P <sub>o</sub>	0.59	W/dot
Print cycle	SLT	0.28	ms
Maximum number of dots energized simultaneously	–	640	dots
Maximum clock frequency	–	8	MHz
Maximum roller diameter	–	φ20	mm
Running life / pulse life	–	150/(1×10 <sup>8</sup> )	km/pulses
Operating temperature	–	5 to 45	°C

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