

# Thick film thermal printhead (with thermal historical control)

## KD2006-DC70A

DC70 series has our own internally developed heat-history control function.  
This product is best suited for applications which require 24 hours operation like factory production lines.

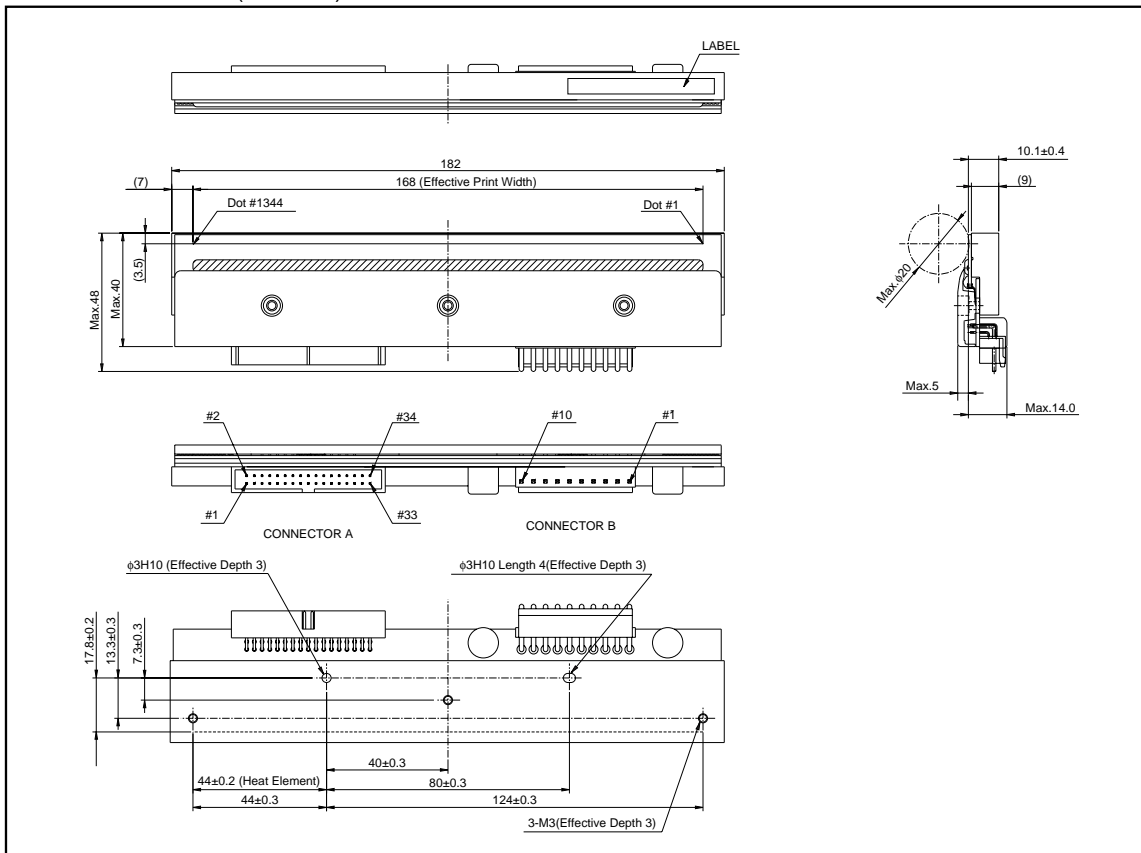
**●Applications**

- High speed label printer
- High speed bar code printer
- High speed ticket printer
- Various high speed terminal printers

**●Features**

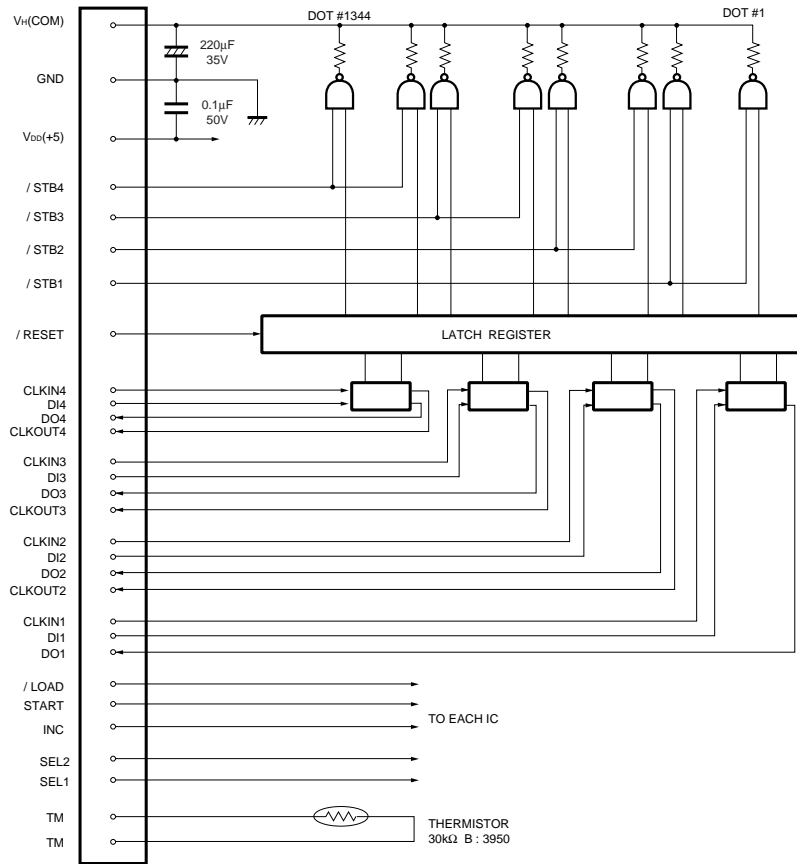
- 1) Newly developed thick-film fast response thermal element and driver LSI with the function of thermal history control which is added the future history control are employed for this series. It is possible to print with super high speed of 10 inches / s or 250 mm / s.
- 2) 150km life realized by attributing durable new protection film.
- 3) New partial glaze construction makes it compatible with the thermal transfer application.

**●External dimensions (Unit : mm)**



Printhead

●Equivalent circuit



DI No.	DOT No.
DI4	1344 to 961
DI3	960 to 705
DI2	704 to 321
DI1	320 to 1

/ STB No.	DOT No.
/ STB4	1344 to 961
/ STB3	960 to 705
/ STB2	704 to 321
/ STB1	320 to 1

CLK No.	DOT No.
CLKIN4	1344 to 961
CLKIN3	960 to 705
CLKIN2	704 to 321
CLKIN1	320 to 1

Fig.1

## Printhead

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### ●Pin assignments

CONNECTOR A				CONNECTOR B	
No.	Circuit	No.	Circuit	No.	Circuit
1	V <sub>DD</sub>	18	/ LOAD	1	V <sub>H</sub> (COM)
2	V <sub>DD</sub>	19	/ RESET	2	V <sub>H</sub> (COM)
3	NC	20	START	3	V <sub>H</sub> (COM)
4	NC	21	TM	4	V <sub>H</sub> (COM)
5	SEL2	22	TM	5	V <sub>H</sub> (COM)
6	SEL1	23	DI2	6	GND
7	CLKIN4 (CP)	24	DO2	7	GND
8	CLKOUT4	25	DI1	8	GND
9	CLKIN3	26	DO1	9	GND
10	CLKOUT3	27	/ STB2	10	GND
11	DI4	28	/ STB1		
12	DO4	29	CLKIN2		
13	DI3	30	CLKOUT2		
14	DO3	31	CLKIN1		
15	/ STB4	32	NC		
16	/ STB3	33	NC		
17	INC	34	NC		

### ●Characteristics

Parameter	Symbol	Typical	Unit
Effective printing width	–	168	mm
Dot pitch	–	0.125	mm
Total dot number	–	1344	dots
Average resistance value	R <sub>ave</sub>	650	Ω
Applied voltage	V <sub>H</sub>	24	V
Applied power	P <sub>o</sub>	0.75	W/dot
Print cycle	SLT	0.49	ms
Maximum number of dots energized simultaneously	–	1344	dots
Maximum clock frequency	–	8	MHz
Maximum roller diameter	–	φ20.0	mm
Running life / pulse life	–	150/(1×10 <sup>8</sup> )	km/pulses
Operating temperature	–	5 to 45	°C

Printhead

●Data sheets

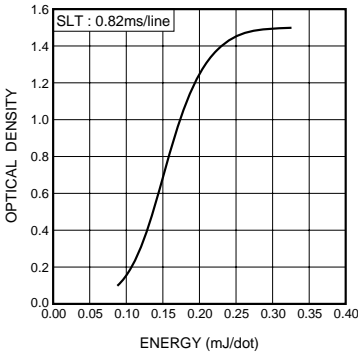


Fig.2 Representative density curve

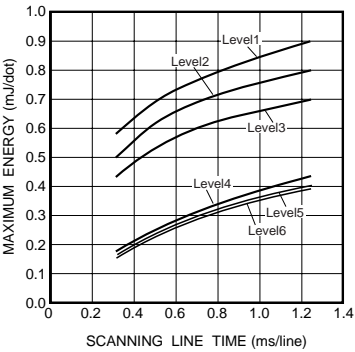


Fig.3 Maximum energy curve

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