Thick film thermal printhead

KD3006-DC10A

KD3006-DC10A is developing type of GL40 series which are developed mainly of label printers.
We have adopted low coefficient of abrasion and conductive protection coat to GL40 series which are possible for high speed and good printing quality.
That is KD3006-DC10A which is 24V standard thick film thermal print head with high speed, high quality of printing, high durability, long life, and strong resistance to abration.

●Applications

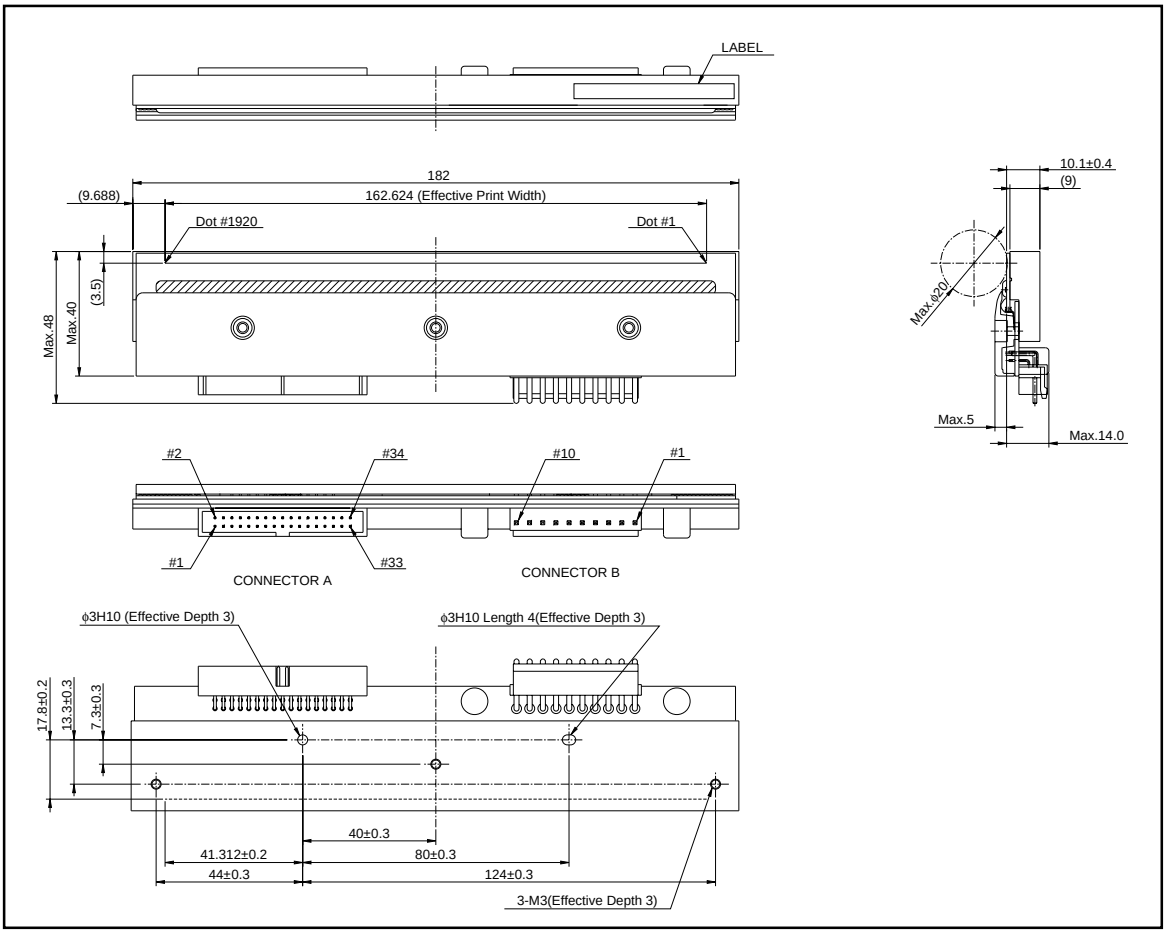
High speed label printer
High speed bar code printer
High speed ticket printer
Various high speed terminal printers

●Features

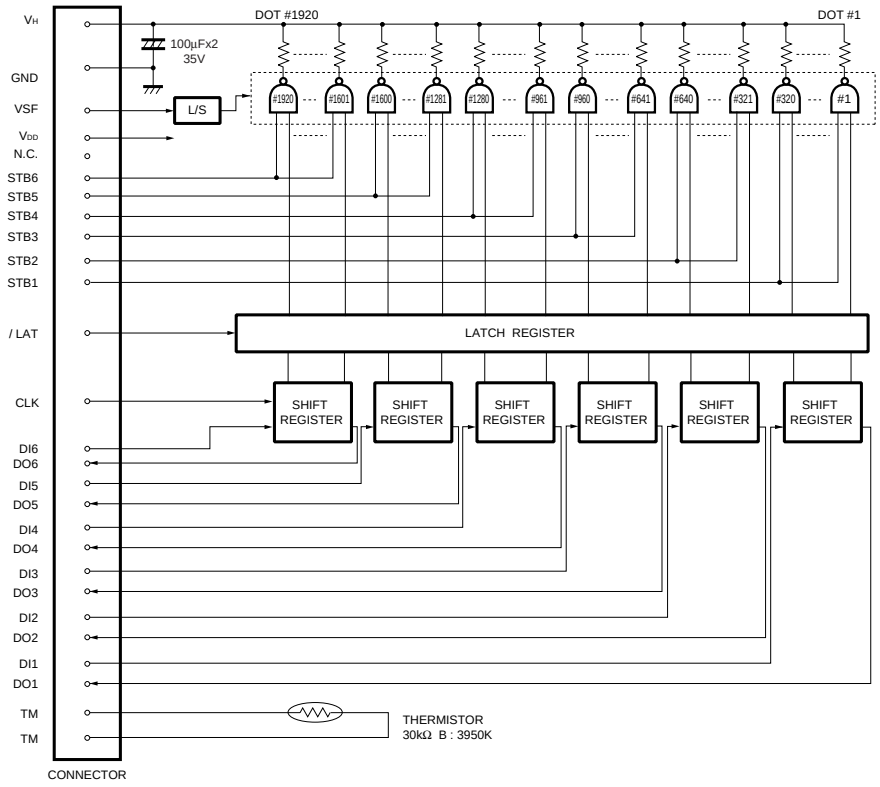
1) Newly developed thick-film fast response thermal element is employed for this series and 4 inches/s or 100 mm/s is possible without thermal history control. It is possible to print 10 inches/s or 250 mm/s if external thermal history control is used.
2) 150km life realized by attributing durable new protection film.
3) New partial glaze construction makes it compatible with the thermal transfer application.

Printhead

●**External dimensions** (Unit : mm)



●**Equivalent circuit**



VSF : Usually VSF and VH are connected. When measuring R value of Heat-element , VSF and VH should be separated.

DI No.	DOT No.
DI1	1 to 320
DI2	321 to 640
DI3	641 to 960
DI4	961 to 1280
DI5	1281 to 1600
DI6	1601 to 1920

STB No.	DOT No.
STB1	1 to 320
STB2	321 to 640
STB3	641 to 960
STB4	961 to 1280
STB5	1281 to 1600
STB6	1601 to1920

Fig.1

Printhead

●Pin assignments

CONNECTOR A

No.	Circuit	No.	Circuit
1	GND	18	STB6
2	VSF	19	CLK
3	GND	20	/ LAT
4	V_{DD}	21	TM
5	NC	22	TM
6	NC	23	STB3
7	NC	24	STB4
8	NC	25	STB1
9	NC	26	STB2
10	NC	27	DI4
11	DI6	28	DO4
12	DO6	29	DI3
13	DI5	30	DO3
14	DO5	31	DI2
15	NC	32	DO2
16	NC	33	DI1
17	STB5	34	DO1

CONNECTOR B

No.	Circuit
1	V_H
2	V_H
3	V_H
4	V_H
5	V_H
6	GND
7	GND
8	GND
9	GND
10	GND

●Characteristics

Parameter	Symbol	Typical	Unit
Effective printing width	–	162.624	mm
Dot pitch	–	0.0847	mm
Total dot number	–	1920	dots
Average resistance value	Rave	1000	Ω
Applied voltage	V_H	24	V
Applied power	P_O	0.50	W/dot
Print cycle	SLT	0.83	ms
Maximum number of dots energized simultaneously	–	960	dots
Maximum clock frequency	–	12	MHz
Maximum roller diameter	–	ϕ20.0	mm
Running life / pulse life	–	$150/(1\times10^8)$	km/pulses
Operating temperature	–	5 to 45	°C

●**Data sheets**

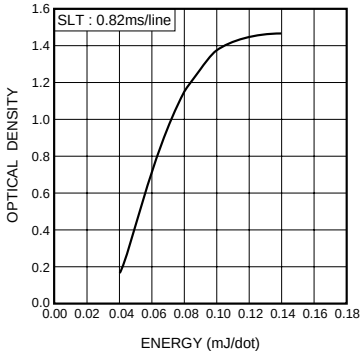


Fig.2 Representative density curve

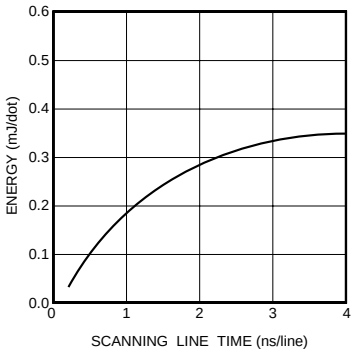


Fig.3 Maximum energy curve

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