

Compact medium speed thick film thermal printhead (8 dots / mm)

KF2002-GD30A

The KF2002-GD30A is a standard 24 V thick-film thermal printhead with a printing speed of 4 inches / second, developed mainly for label printers. The GD30 series is of the glazed component type and therefore excellent for thermal transfer printing.

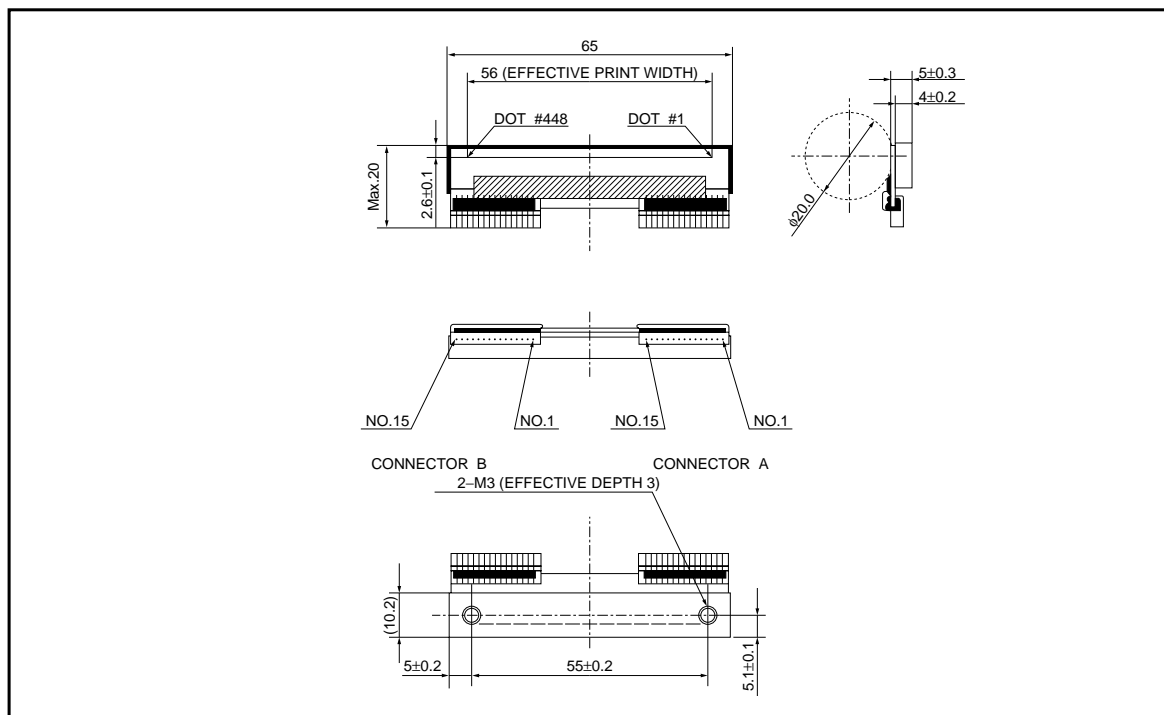
●Applications

Label printers
Ticket printers
Terminal printers

●Features

- 1) A new pin connector structure greatly reduces the size and weight.
- 2) A hard protective coating with good conductivity ensures highly reliable operation over a long useful life.
- 3) A newly developed driving IC improves data transmission speed (8MHz) and ON resistance (half of the conventional product) to support various control methods.
- 4) One rank resistance value of $800\Omega \pm 3\%$ eliminates the inconvenience of rank selection.
- 5) 2-inch, 3-inch and 4-inch series are available.

●External dimensions (Units : mm)



Printheads

●Equivalent circuit

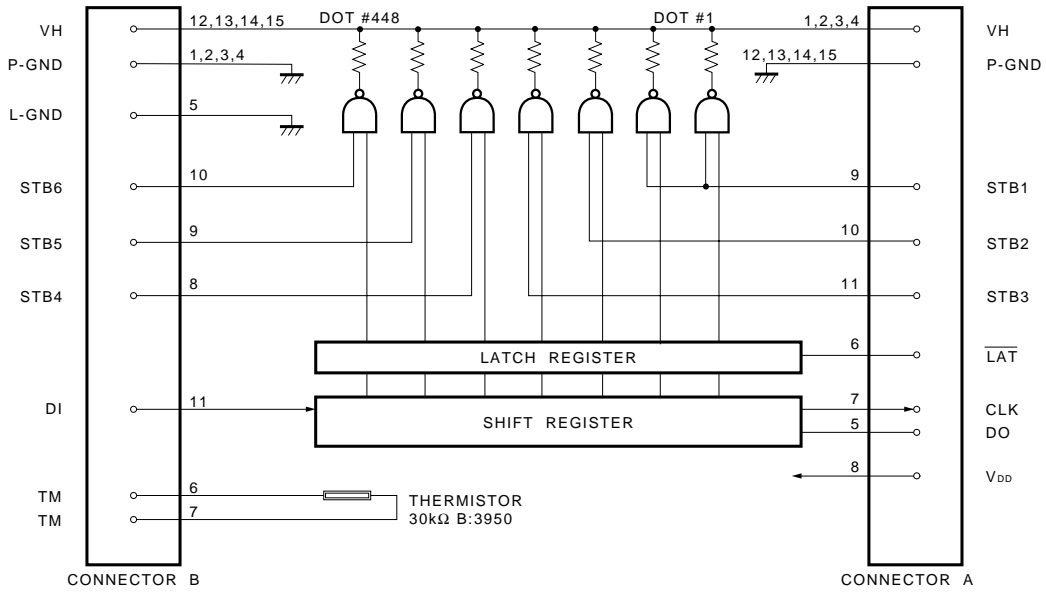


Fig.1

●Pin assignments

CONNECTOR A	
No.	Circuit
1	P-GND
2	P-GND
3	P-GND
4	P-GND
5	L-GND
6	TM
7	TM
8	STB4
9	STB5
10	STB6
11	DI
12	VH
13	VH
14	VH
15	VH

CONNECTOR B	
No.	Circuit
1	VH
2	VH
3	VH
4	VH
5	DO
6	LAT
7	CLK
8	V _{DD}
9	STB1
10	STB2
11	STB3
12	P-GND
13	P-GND
14	P-GND
15	P-GND

L-GND : LOGIC GROUND
P-GND : POWER GROUND

Printheads

●Timing chart

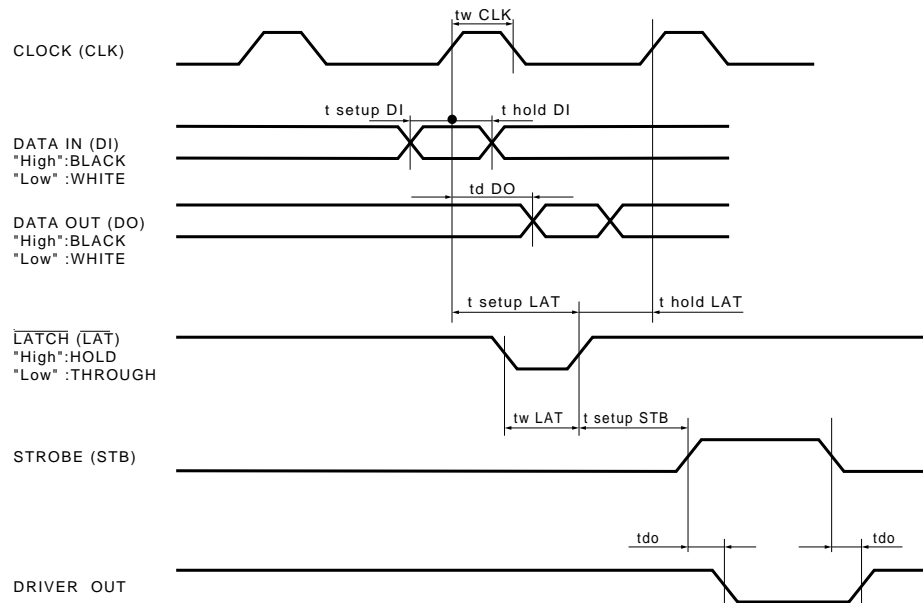


Fig.2

●Characteristics

Parameter	Symbol	Typical	Unit
Effective printing width	—	56.0	mm
Dot pitch	—	0.125	mm
Total dot number	—	448	dots
Average resistance value	Rave	800	Ω
Applied voltage	V _H	24	V
Applied power	P _O	0.64	W/dot
Print cycle	SLT	1.25	ms
Pulse width	T _{ON}	0.27	ms
Maximum number of dots energized simultaneously	—	448	dots
Maximum clock frequency	—	8	MHz
Maximum roller diameter	—	ϕ 20.0	mm
Running life / pulse life	—	50/5 \times 10 ⁷	km/pulses
Operating temperature	—	5~45	$^{\circ}$ C

Printheads

●Electrical characteristic curves

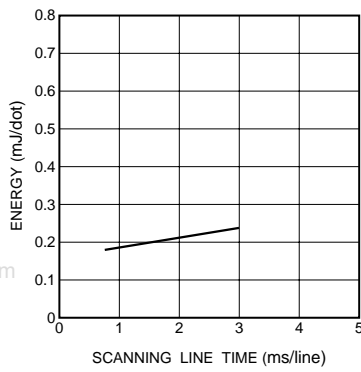


Fig.3 Adaptive speed chart

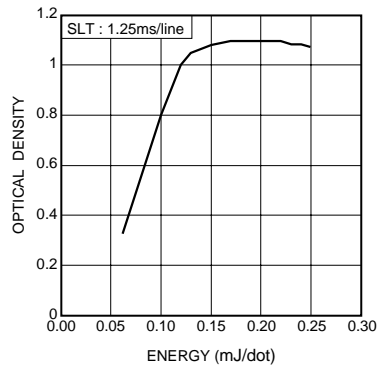


Fig.4 Representative density curve

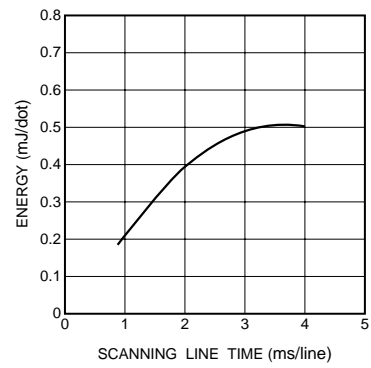


Fig.5 Maximum energy curve

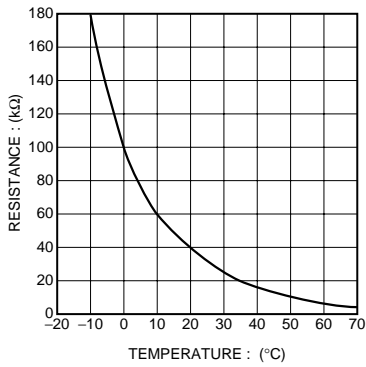


Fig.6 Thermistor curve