

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

## KF2003-GH10A

The KF2003-GH10A is a compact and lightweight thick-film thermal printhead with a printing speed of 2 inches / second, developed mainly for ECRs.

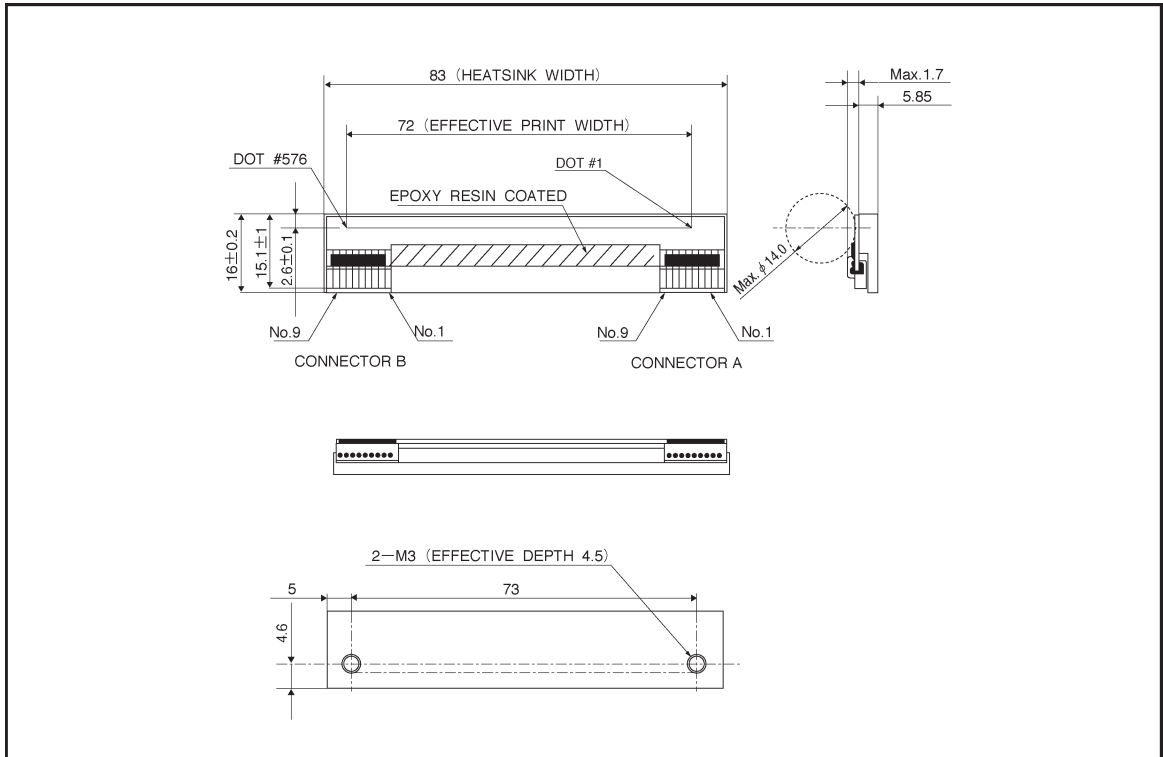
●Applications

- Cash registers
- Label printers
- Receipt printers
- General purpose compact printers

●Features

- 1) A new pin connector structure greatly reduces the size and weight.
- 2) A newly developed 144-bit IC levels the strobe partition and reduces the noise level.
- 3) One rank resistance value of  $1500 \Omega \pm 3\%$  eliminates the inconvenience of rank selection.
- 4) 2-inch, 3-inch and 4-inch series are available.

●External dimensions (Units: mm)



●Equivalent circuit

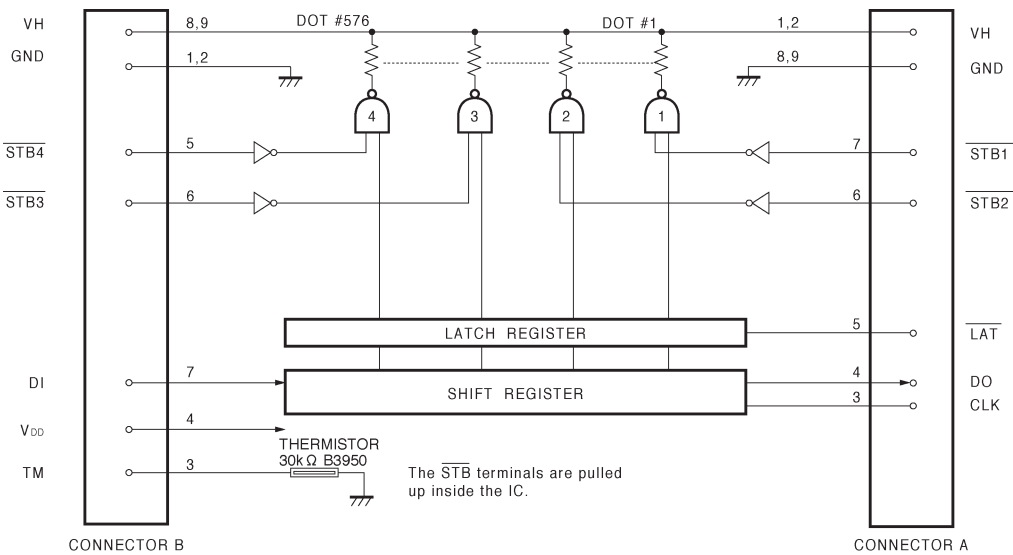


Fig. 1

●Pin assignments

CONNECTOR B	
No.	Circuit
1	GND
2	GND
3	TM
4	V <sub>DD</sub>
5	$\overline{\text{STB4}}$
6	$\overline{\text{STB3}}$
7	DI
8	VH
9	VH

CONNECTOR A	
No.	Circuit
1	VH
2	VH
3	DO
4	CLK
5	$\overline{\text{LAT}}$
6	$\overline{\text{STB2}}$
7	$\overline{\text{STB1}}$
8	GND
9	GND

●Timing chart

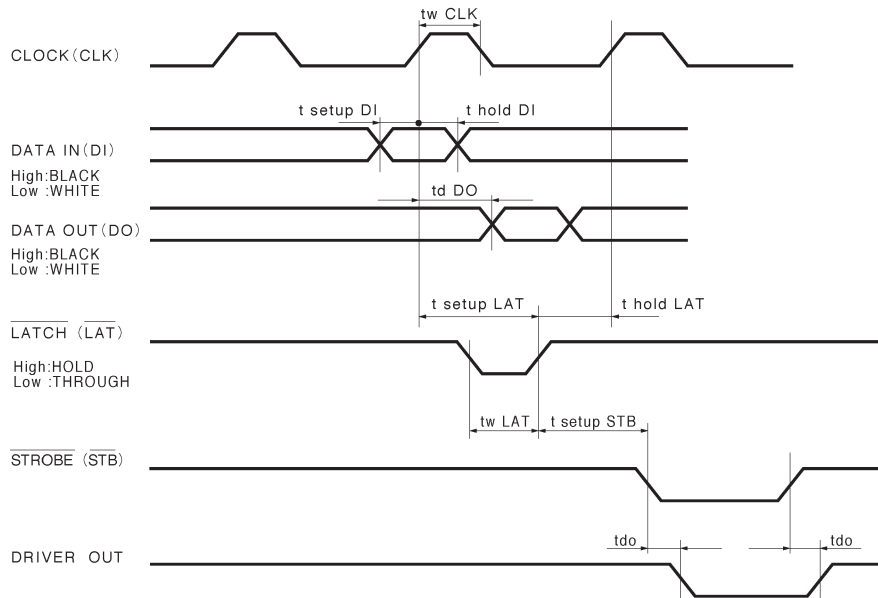


Fig. 2

●Characteristics

Parameter	Symbol	Typical	Unit
Effective printing width	—	72.0	mm
Dot pitch	—	0.125	mm
Total dot number	—	576	dots
Average resistance value	Rave	1500	$\Omega$
Applied voltage	$V_H$	24.0	V
Applied power	$P_o$	0.30	W / dot
Print cycle	SLT	2.5	ms
Pulse width	$T_{ON}$	0.73	ms
Maximum number of dots energized simultaneously	—	288	dots
Maximum clock frequency	—	4	MHz
Maximum roller diameter	—	$\phi$ 14.0	mm
Running life / pulse life	—	50 / $5 \times 10^7$	km / pulses
Operating temperature	—	5~45	$^{\circ}\text{C}$

●Electrical characteristic curves

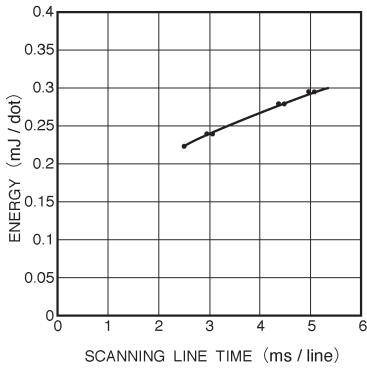


Fig. 3 Adaptive speed chart

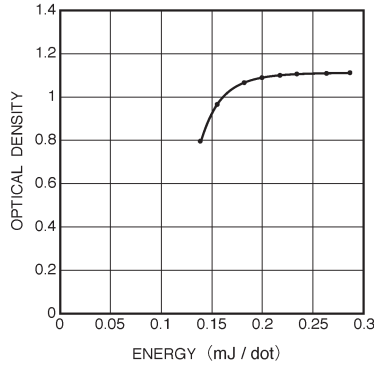


Fig. 4 Representative density curve

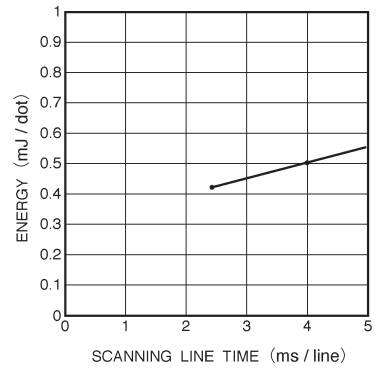


Fig. 5 Maximum energy curve

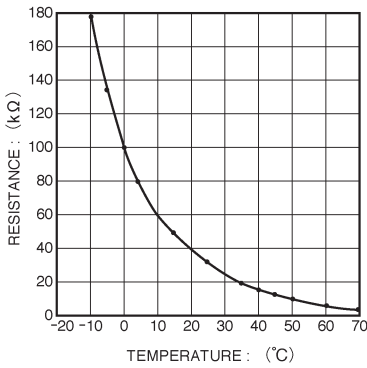


Fig. 6 Thermistor curve