

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

## KF2003-GF10A

The KF2003-GF10A is a standard type 5 V thermal printhead, developed mainly for handy printers. Maximum printing speed of 2 inch / second is possible.

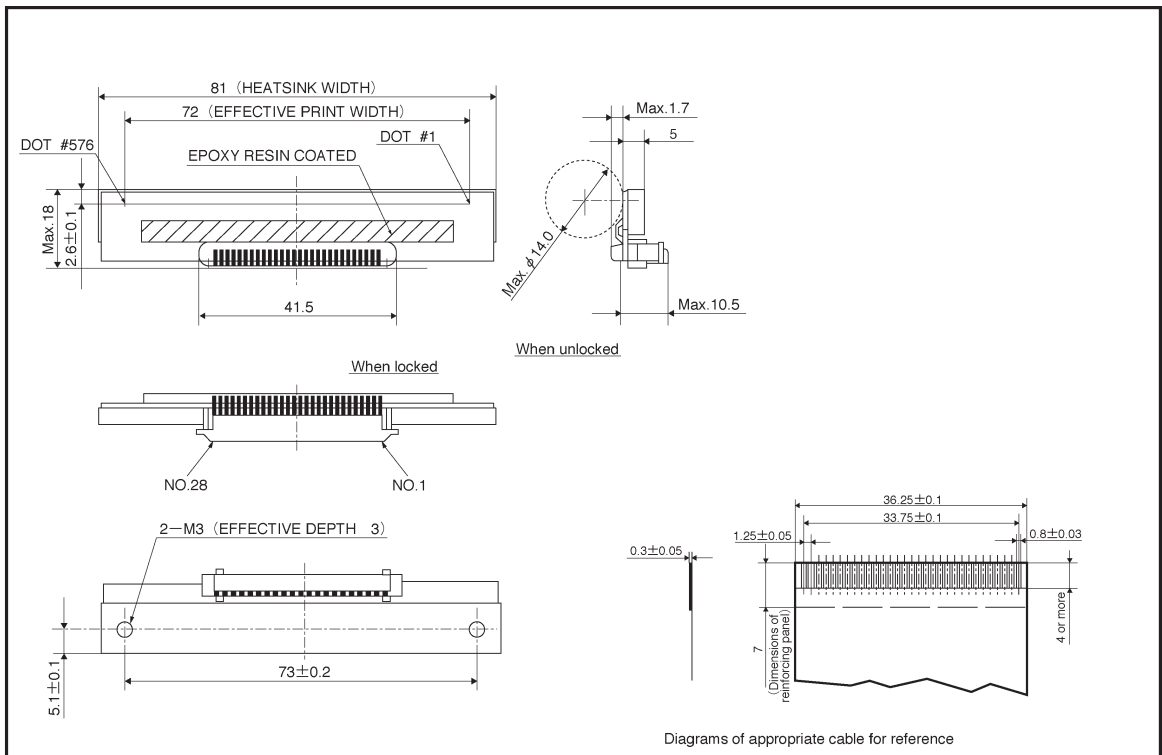
●Applications

Handy printers  
Receipt printers

●Features

- 1) Five STB terminals and two AEO terminals provides nine partitions to enable low current printing.
- 2) Simple structure with our clip connector reduces the size and weight.

●External dimensions (Units: mm)



●Equivalent circuit

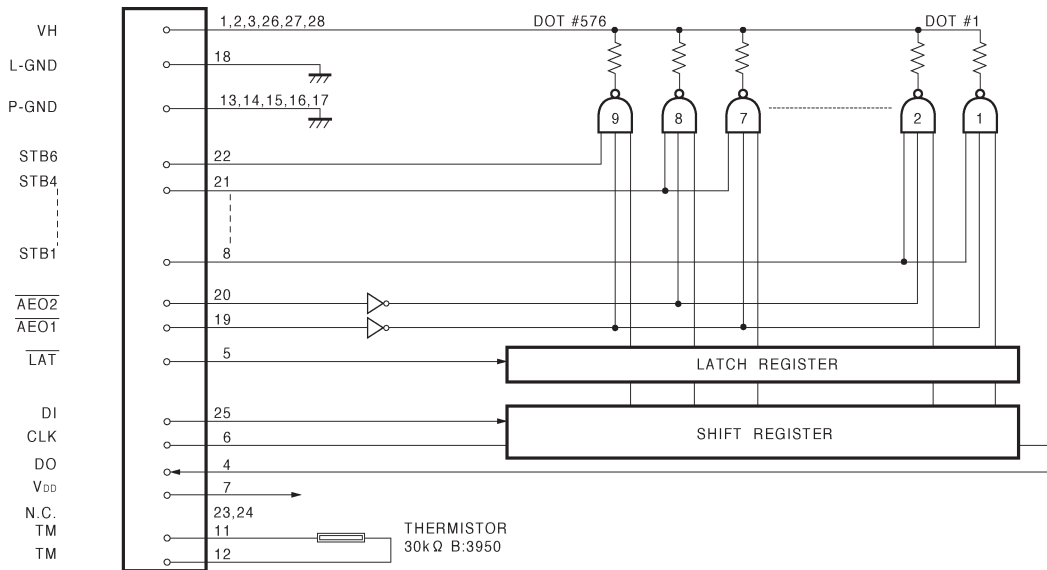


Fig. 1

●Pin assignments

No.	Circuit
1	VH
2	VH
3	VH
4	DO
5	LAT
6	CLK
7	V <sub>DD</sub>
8	STB1
9	STB2
10	STB3
11	TM
12	TM
13	P-GND
14	P-GND

No.	Circuit
15	P-GND
16	P-GND
17	P-GND
18	L-GND
19	AEO1
20	AEO2
21	STB4
22	STB5
23	N.C.
24	N.C.
25	DI
26	VH
27	VH
28	VH

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

●Timing chart

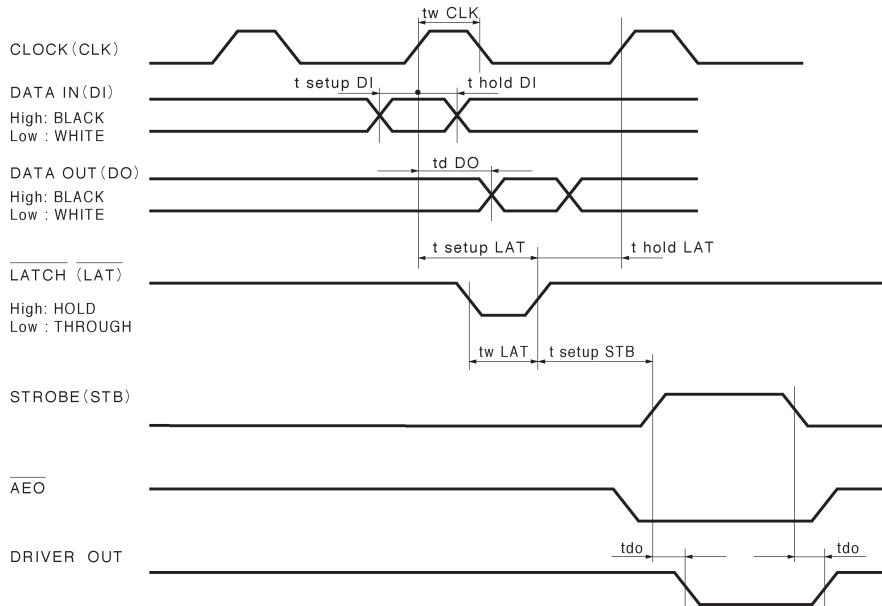


Fig. 2

●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	142	$\Omega$
Applied voltage	V <sub>H</sub>	4.2~8.5	V
Applied power	P <sub>O</sub>	0.123	W / dot
Print cycle	SLT	5.0	ms
Pulse width	T <sub>ON</sub>	2.58	ms
Maximum number of dots energized simultaneously	—	64	dots
Maximum clock frequency	—	8	MHz
Maximum roller diameter	—	$\phi$ 14.0	mm
Running life / pulse life	—	50 / 5 × 10 <sup>7</sup>	km / pulses
Operating temperature	—	5~45	°C

●Electrical characteristic curves

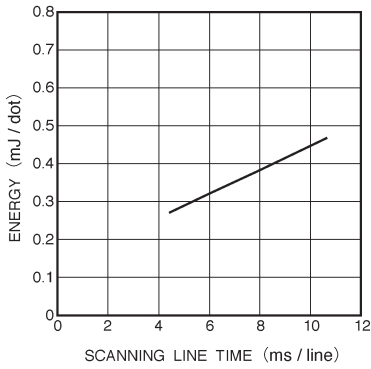


Fig. 3 Adaptive speed chart

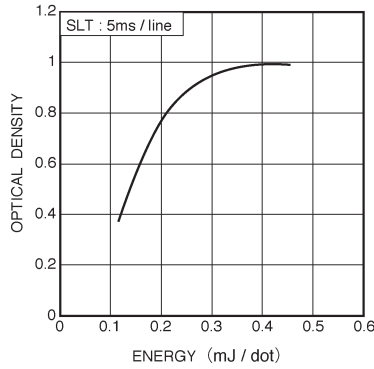


Fig. 4 Representative density curve

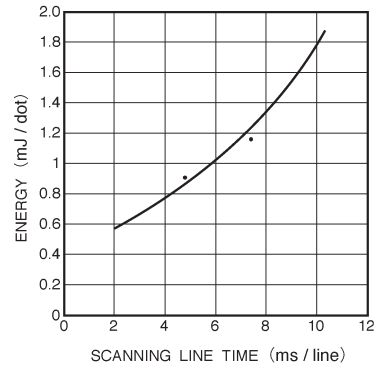


Fig. 5 Maximum energy curve

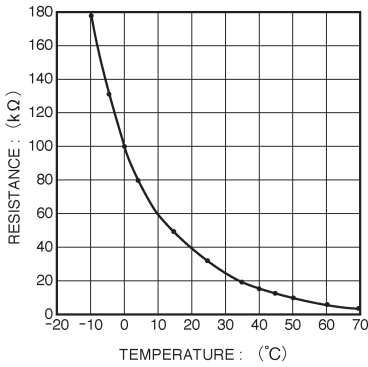


Fig. 6 Thermistor curve