# Compact low speed thick film thermal printhead (8 dots / mm) KF2003-GK10A

The KF2003-GK10A uses a highly-durable conductive protective film to handle label papers with top-coatings. With ROHM's partial glaze construction, the KF2003-GK10A is a compact and lightweight thick-film thermal print head with printing speeds up to 3 inch / second.

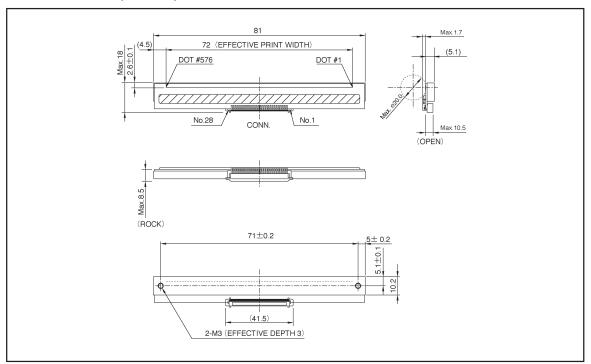
# ApplicationsPOS terminalsLabel printersCAT terminals

Multi-purpose small-sized printers

#### Features

- 1) The use of the newly developed highly-durable conductive protective film has improved countermeasures against static electricity (ESD).
- Acheives an even smaller size and lighter weight by ROHM's original clip connector design and newly developed FFC (full flat cable) specifications.
- A newly developed 144-bit IC levels the strobe partition and reduces the noise level.
- 4) One rank resistance value of 1500  $\Omega\pm3\%$  eliminates the inconvenience of rank selection.
- 5) 2-inch, 3-inch, 4-inch, and 8-inch series are available.

#### External dimensions (Units: mm)



## Equivalent circuit

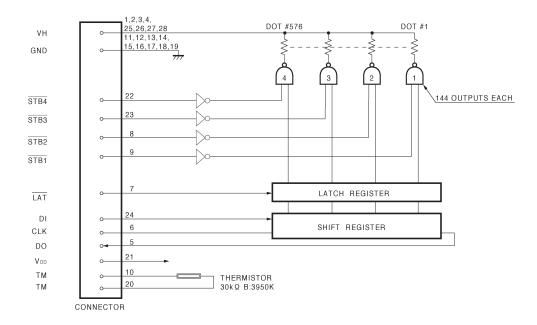


Fig. 1

# Pin assignments

No.	Circuit			
1	VH			
2	VH			
3	VH			
4	VH			
5	DO			
6	CLK			
7	LAT			
8	STB2			
9	STB1			
10	TM			
11	GND			
12	GND			
13	GND			
14	GND			

No.	Circuit			
15	GND			
16	GND			
17	GND			
18	GND			
19	GND			
20	TM			
21	V <sub>DD</sub>			
22	STB4			
23	STB3			
24	DI			
25	VH			
26	VH			
27	VH			
28	VH			

Printheads KF2003-GK10A

## Timing chart

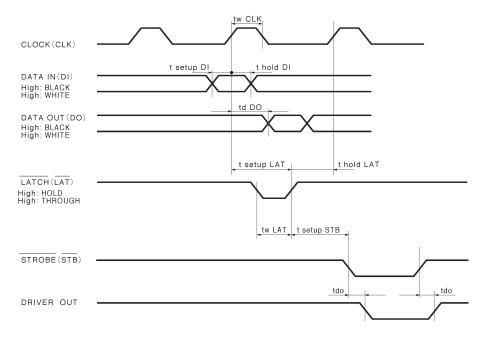


Fig. 2

#### Characteristics

Parameter		Typical	Unit
Effective printing width		72.0	mm
Dot pitch		0.125	mm
Total dot number		576	dots
Average resistance value		1500	Ω
Applied voltage	Vн	24.0	V
Applied power	Po	0.30	W / dot
Print cycle	SLT	1.67	ms
Pulse width	Ton	0.79	ms
Maximum number of dots energized simultaneously	_	288	dots
Maximum clock frequency	_	4	MHz
Maximum roller diameter	_	14.0	mm
Running life / pulse life	_	50 / 5×10 <sup>7</sup>	km / pulses
Operating temperature	_	5~45	င

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#### Electrical characteristic curves

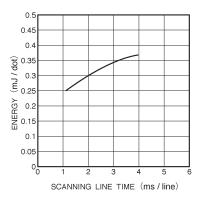


Fig.3 Adaptive speed chart

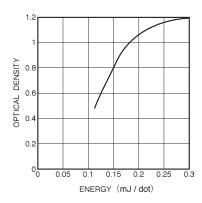


Fig.4 Representative density curve

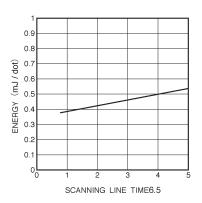


Fig.5 Maximum energy curve

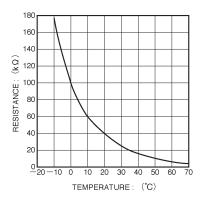


Fig.6 Thermistor curve