

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

KF2004-GK10A

The KF2004-GK10A uses a highly-durable conductive protective film to handle label papers with top-coatings. With ROHM's partial glaze construction, the KF2004-GK10A is a compact and lightweight thick-film thermal print head with printing speeds up to 3 inch / second.

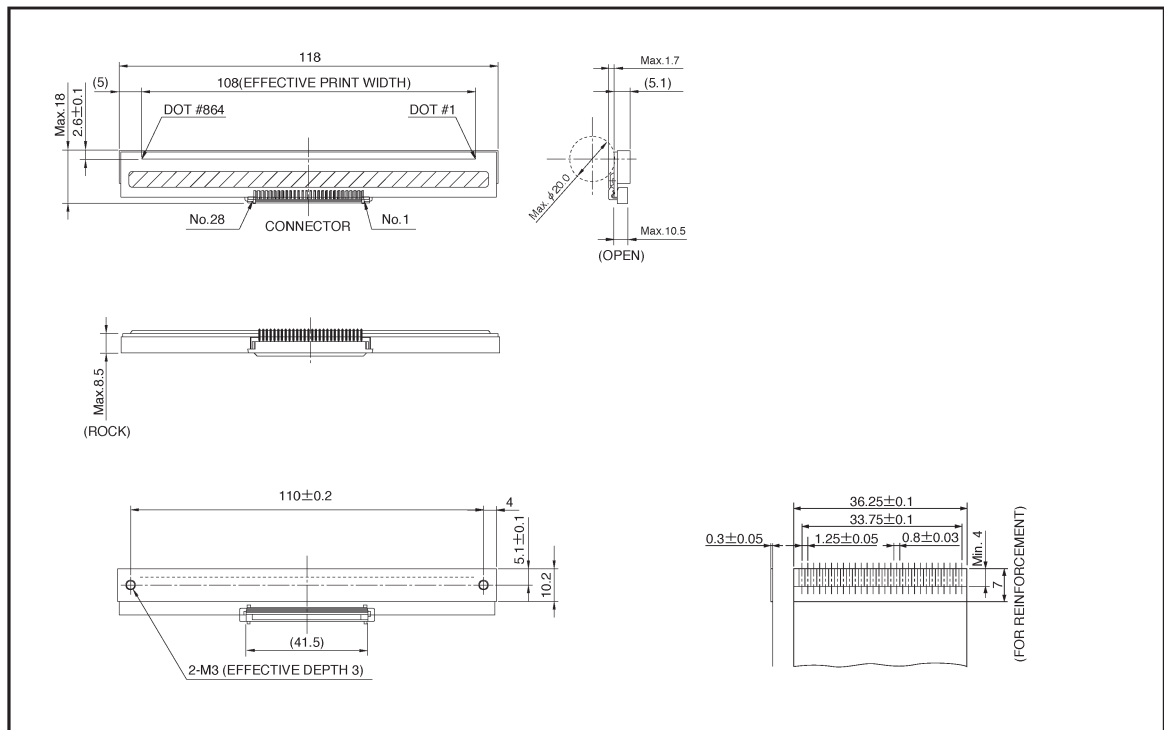
●Applications

Applications
 POS terminals
 Label printers
 CAT 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).
- 2) Achieves an even smaller size and lighter weight by ROHM's original clip connector design and newly developed FFC (full flat cable) specifications.
- 3) A newly developed 144-bit IC levels the strobe partition and reduces the noise level.
- 4) One rank resistance value of $1500 \Omega \pm 3\%$ 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

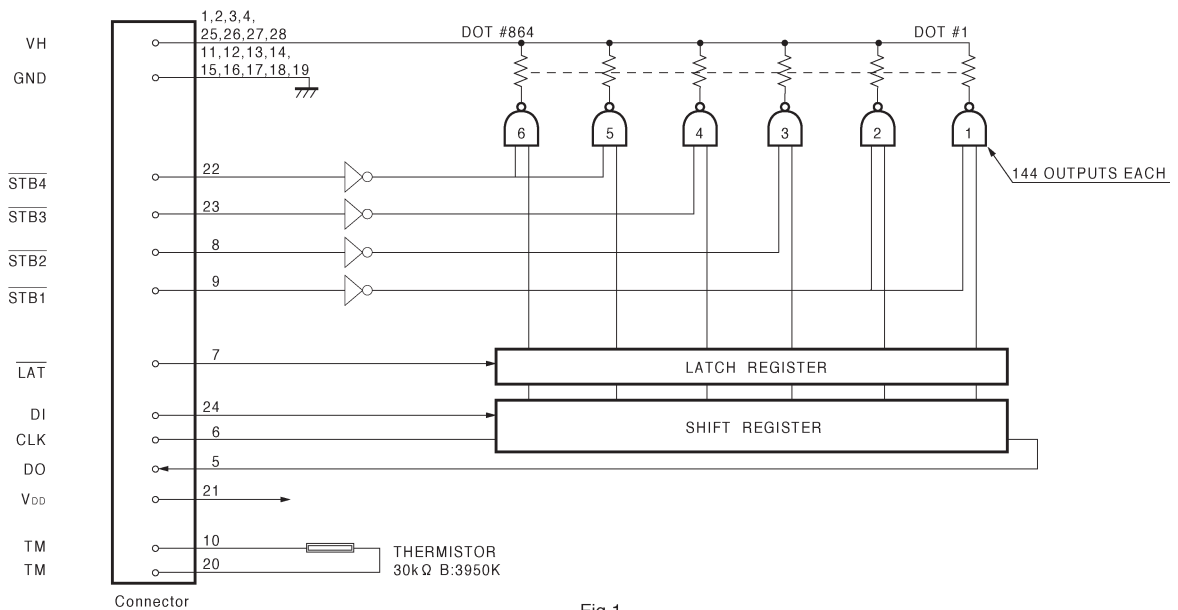


Fig.1

●Pin assignments

No.	Circuit	No.	Circuit
1	VH	15	GND
2	VH	16	GND
3	VH	17	GND
4	VH	18	GND
5	DO	19	GND
6	CLK	20	TM
7	$\overline{\text{LAT}}$	21	V _{DD}
8	$\overline{\text{STB2}}$	22	$\overline{\text{STB4}}$
9	$\overline{\text{STB1}}$	23	$\overline{\text{STB3}}$
10	TM	24	DI
11	GND	25	VH
12	GND	26	VH
13	GND	27	VH
14	GND	28	VH

●Timing chart

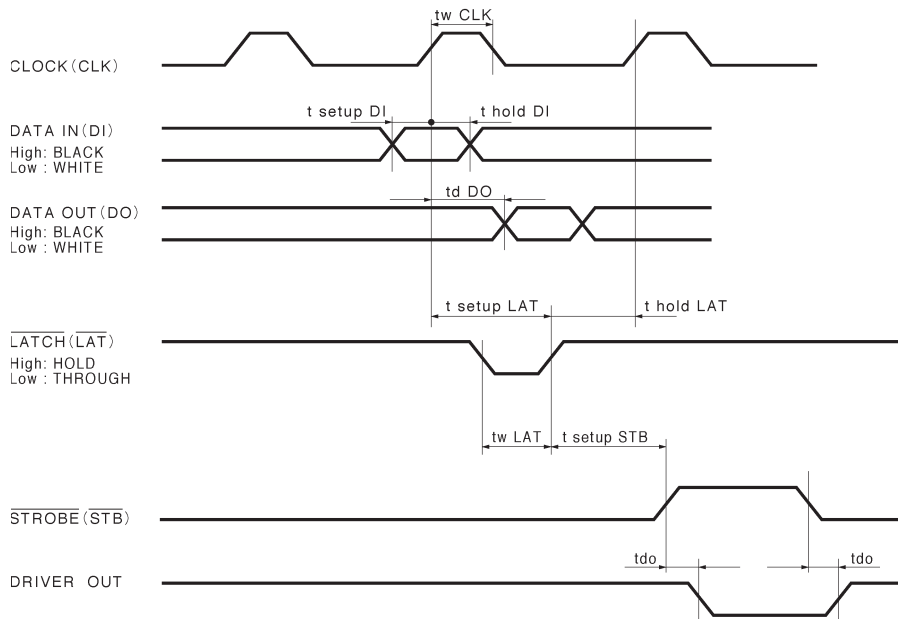


Fig.2

●Characteristics

Parameter	Symbol	Typical	Unit
Effective printing width	—	108.0	mm
Dot pitch	—	0.125	mm
Total dot number	—	864	dots
Average resistance value	Rave	1500	Ω
Applied voltage	V _H	24.0	V
Applied power	P _O	0.30	W / dot
Print cycle	SLT	1.67	ms
Pulse width	T _{ON}	0.80	ms
Maximum number of dots energized simultaneously	—	432	dots
Maximum clock frequency	—	4	MHz
Maximum roller diameter	—	φ 14.0	mm
Running life / pulse life	—	50 / 5 × 10 ⁷	km / pulses
Operating temperature	—	5~45	°C

●Electrical characteristic curves

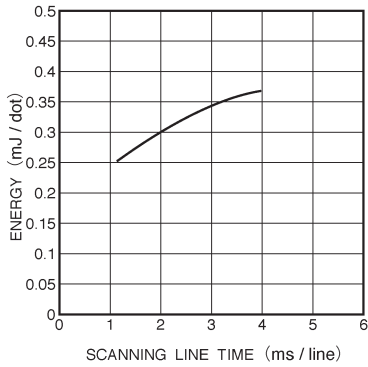


Fig. 3 Adaptive speed chart

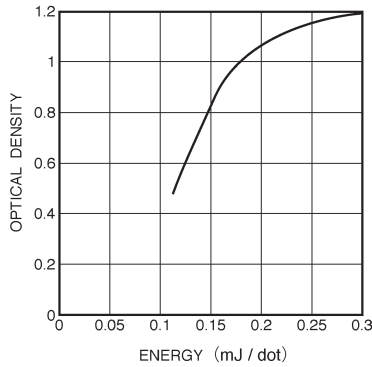


Fig. 4 Representative density curve

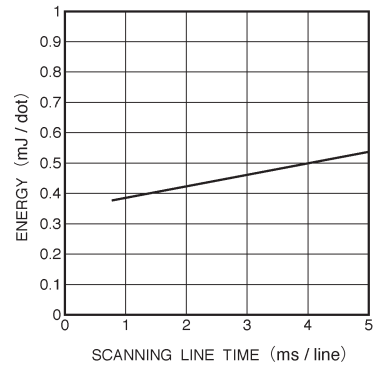


Fig. 5 Maximum energy curve

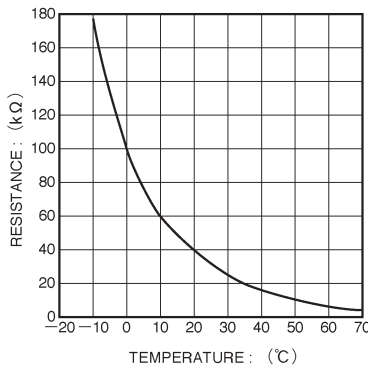


Fig. 6 Thermistor curve