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

KF2002-GK10A

The KF2002-GK10A uses a highly-durable conductive protective film to handle label papers with top-coatings. With ROHM's partial glaze construction, the KF2002-GK10A is a compact and lightweight thick-film thermal print head with printing speeds up to 3 inch / second.

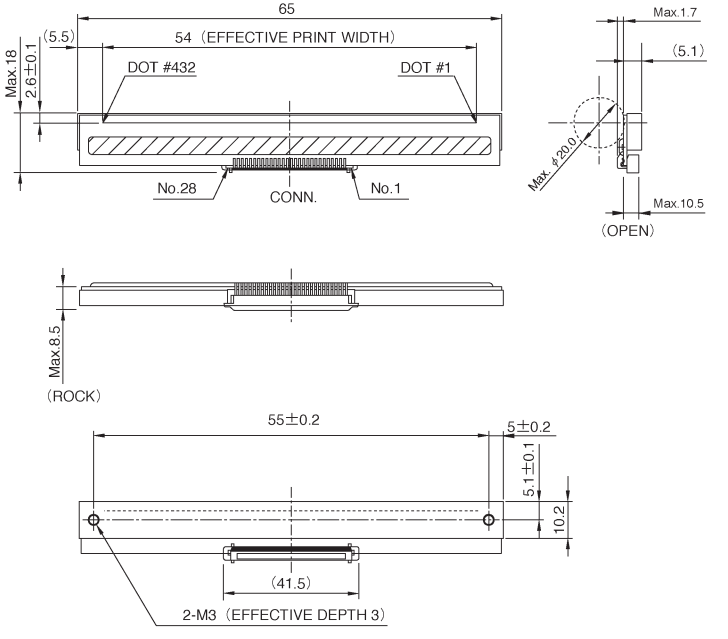
●Applications

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) Acheives 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 Ω ± 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

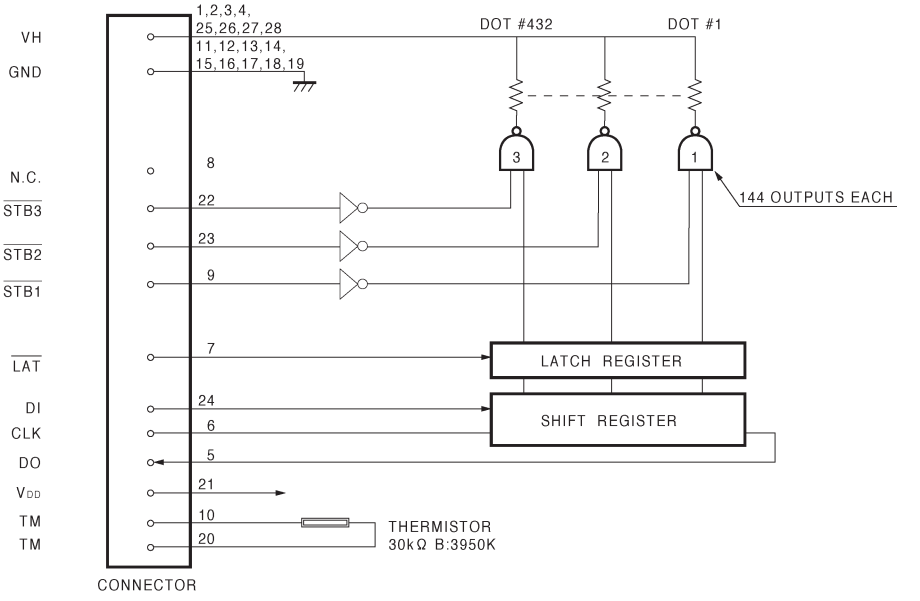


Fig. 1

●Pin assignments

No.	Circuit
1	VH
2	VH
3	VH
4	VH
5	DO
6	CLK
7	$\overline{LAT}$
8	N.C.
9	$\overline{STB1}$
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_{DD}
22	$\overline{STB3}$
23	$\overline{STB2}$
24	DI
25	VH
26	VH
27	VH
28	VH

●Timing chart

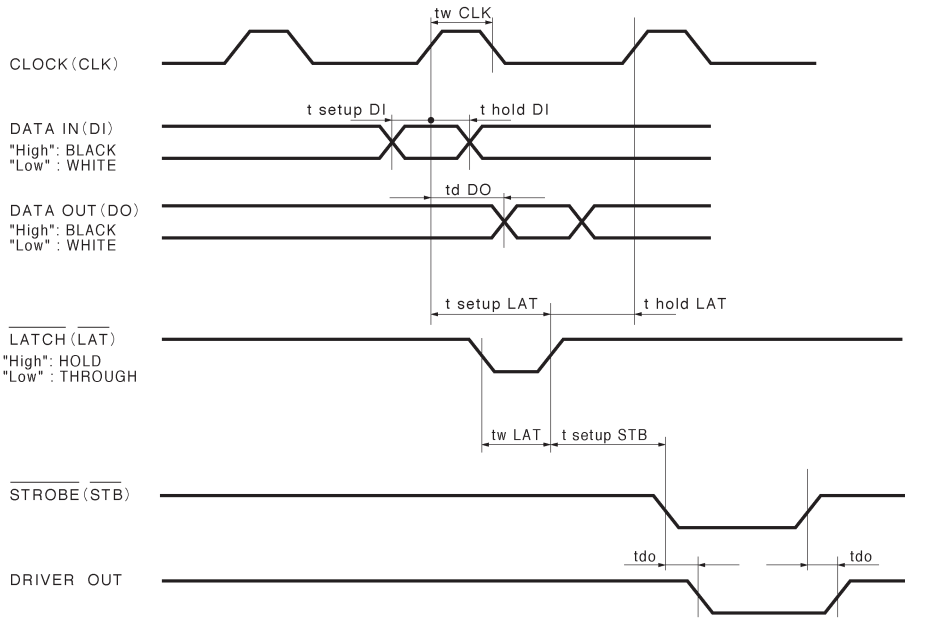


Fig. 2

●Characteristics

Parameter	Symbol	Typical	Unit
Effective printing width	—	54.0	mm
Dot pitch	—	0.125	mm
Total dot number	—	432	dots
Average resistance value	Rave	1500	Ω
Applied voltage	V_H	24.0	V
Applied power	P_O	0.33	W / dot
Print cycle	SLT	1.67	ms
Pulse width	T_{ON}	0.77	ms
Maximum number of dots energized simultaneously	—	144	dots
Maximum clock frequency	—	4	MHz
Maximum roller diameter	—	14.0	mm
Running life / pulse life	—	$50 / 5 \times 10^7$	km / pulses
Operating temperature	—	5～45	℃

●Electrical characteristic curves

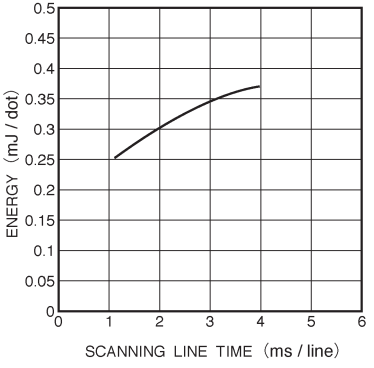


Fig.3 Adaptive speed chart

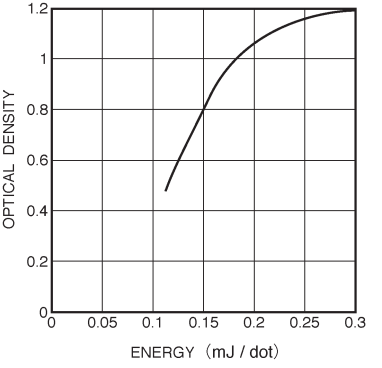


Fig.4 Representative density curve

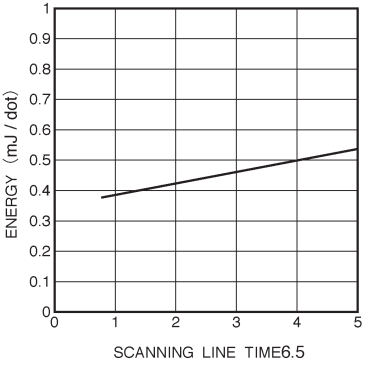


Fig.5 Maximum energy curve

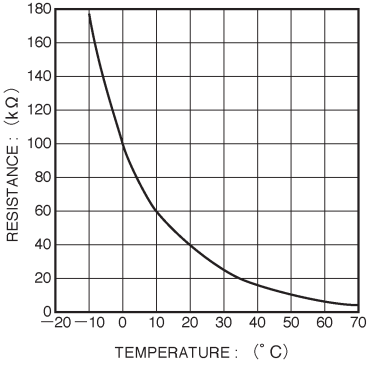


Fig.6 Thermistor curve