

# 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

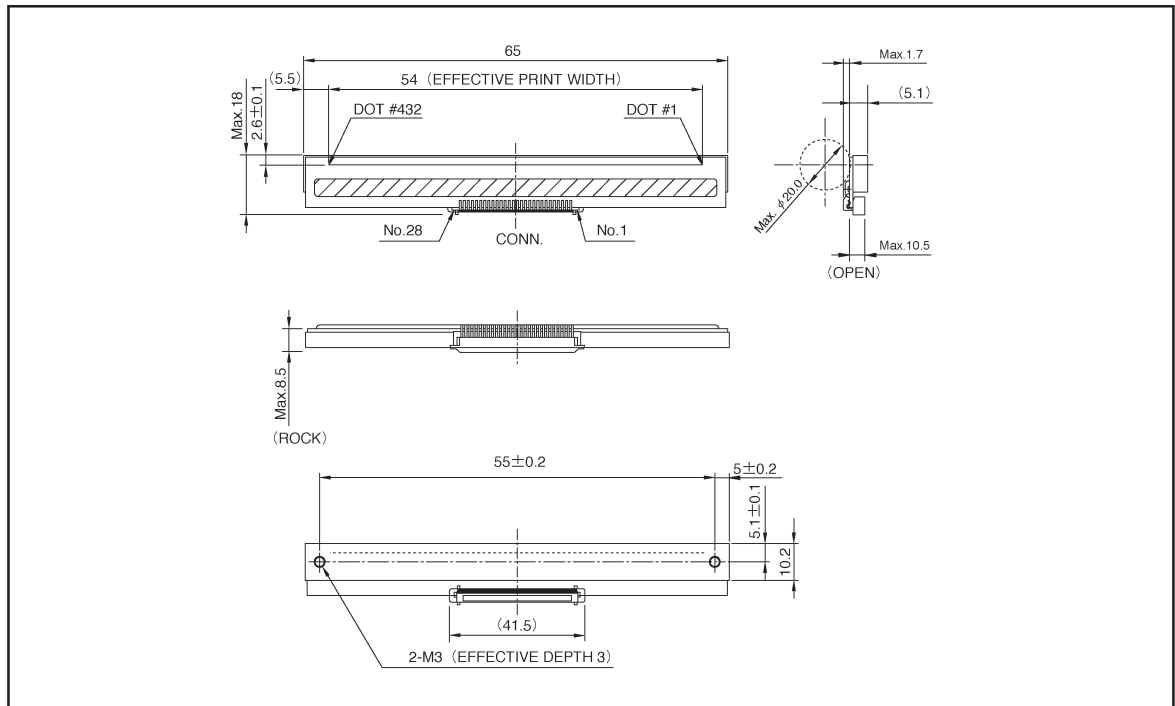
CAT terminals

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) 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

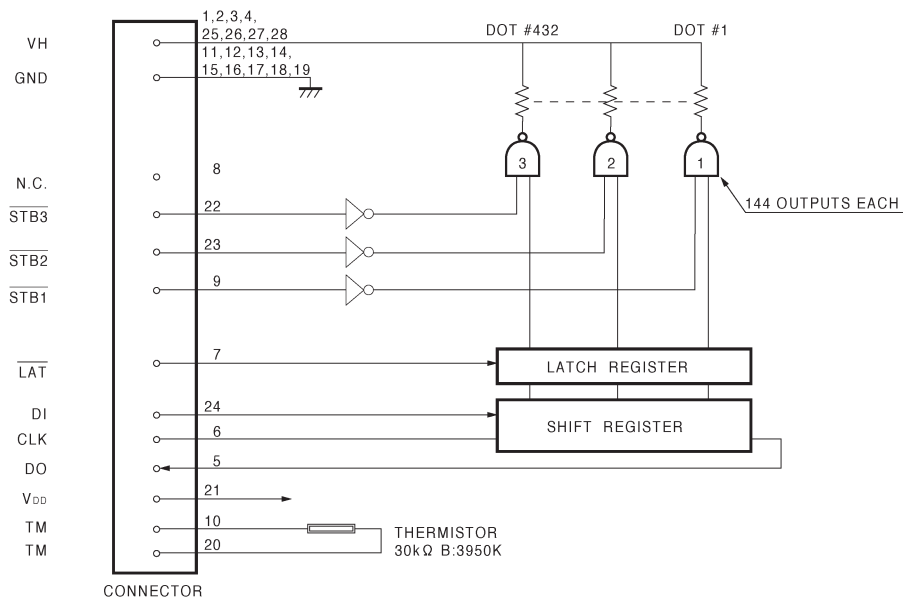


Fig. 1

●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	LAT	21	V <sub>DD</sub>
8	N.C.	22	STB3
9	STB1	23	STB2
10	TM	24	DI
11	GND	25	VH
12	GND	26	VH
13	GND	27	VH
14	GND	28	VH

●Timing chart

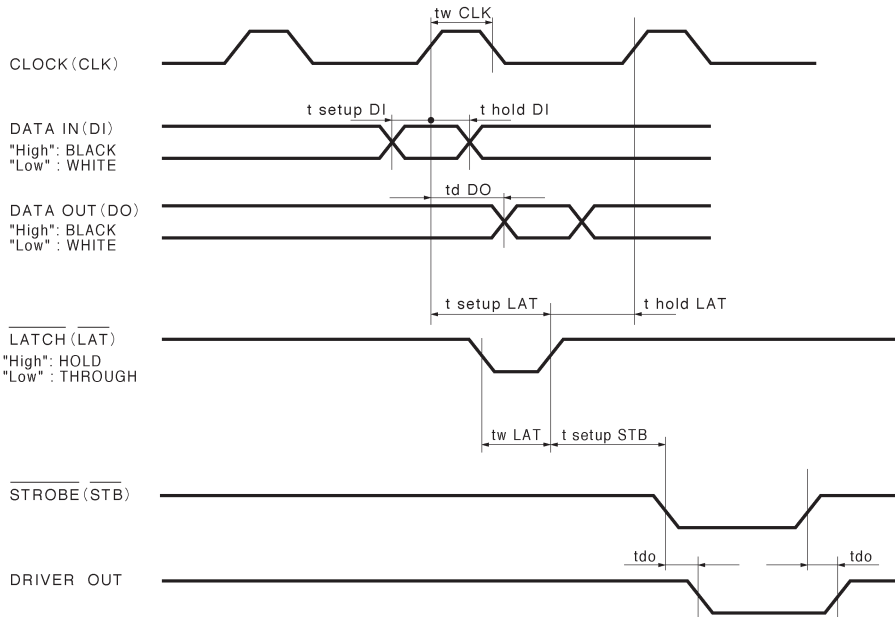


Fig. 2

●Characteristics

Parameter	Symbol	Typical	Unit
Effective printing width	—	54.0	mm
Dot pitch	—	0.125	mm
Total dot number	—	432	dots
Average resistance value	R <sub>ave</sub>	1500	Ω
Applied voltage	V <sub>H</sub>	24.0	V
Applied power	P <sub>O</sub>	0.33	W / dot
Print cycle	SLT	1.67	ms
Pulse width	T <sub>ON</sub>	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 × 10 <sup>7</sup>	km / pulses
Operating temperature	—	5~45	°C

●Electrical characteristic curves

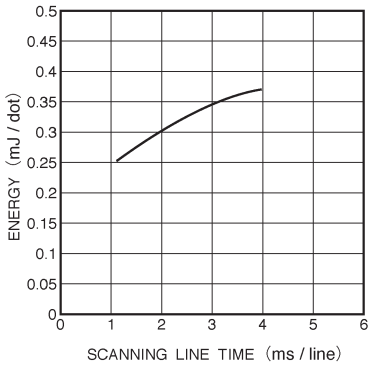


Fig.3 Adaptive speed chart

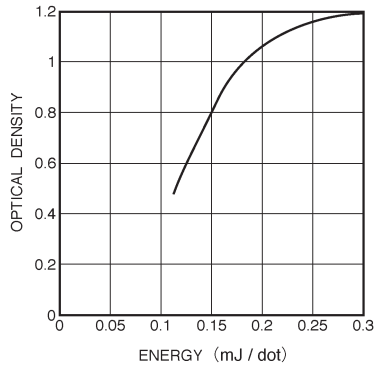


Fig.4 Representative density curve

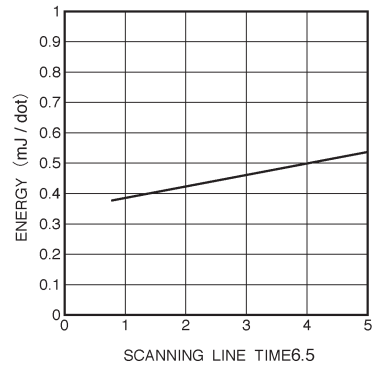


Fig.5 Maximum energy curve

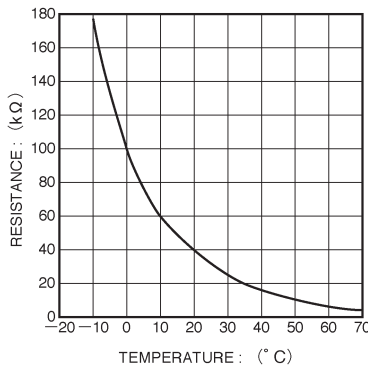


Fig.6 Thermistor curve