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

KF2002-GF41A

Using its expertise in LSI technology, ROHM has developed new high density driver chips for use in the KF2002-GF41A. Capable of being employed for both thermal and thermal transfer printing, with a print speed of 200mm/s, the resulting printheads are the fastest in their class. The high-speed and high-density printing answers the needs of ATM, kiosk and ticket printing devices, which are increasingly being called upon to produce graphical output.

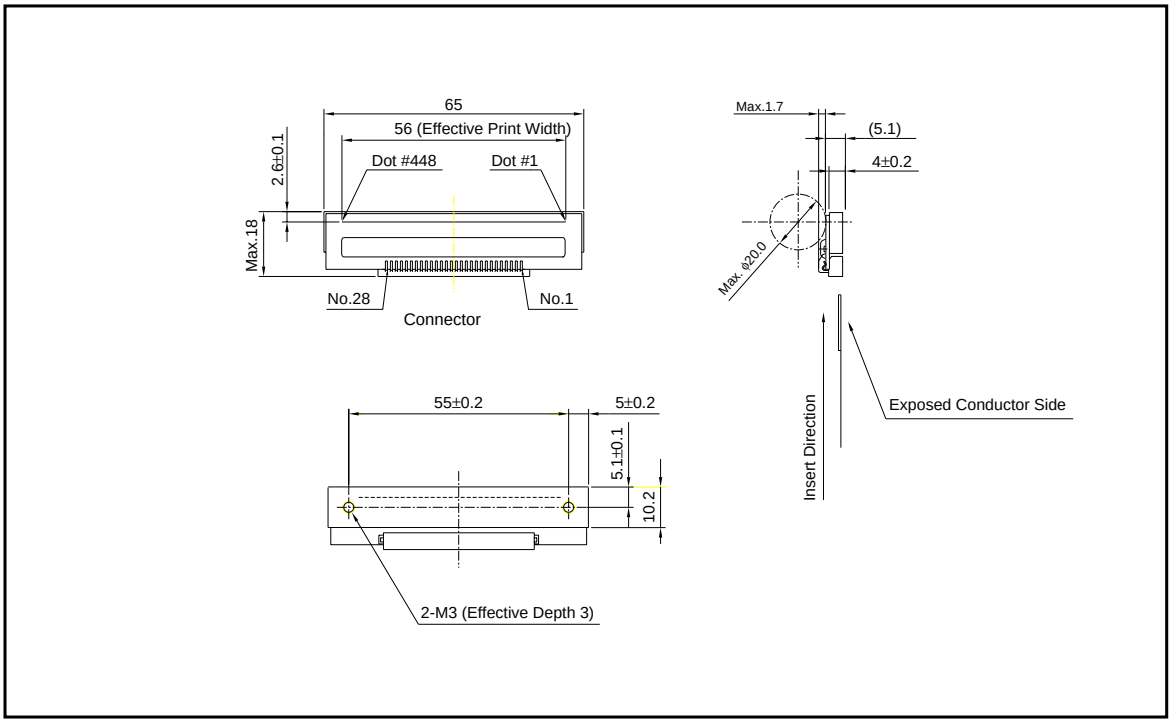
●Applications

Label printers
Ticket printers
POS printers
ATM printers
KIOSK printers
Terminal printers

●Features

1) The use of a special partial glaze and the latest heating element structure, along with new high-density driver chips that can accept big current, has allowed ROHM to achieve print speeds of 200mm/s, the fastest in its class.
2) One rank resistance value of 650Ω ± 3% eliminates the inconvenience of rank selection.
3) 2-inch, 3-inch and 4-inch series are available.

●External dimensions (Units : mm)



●**Equivalent circuit**

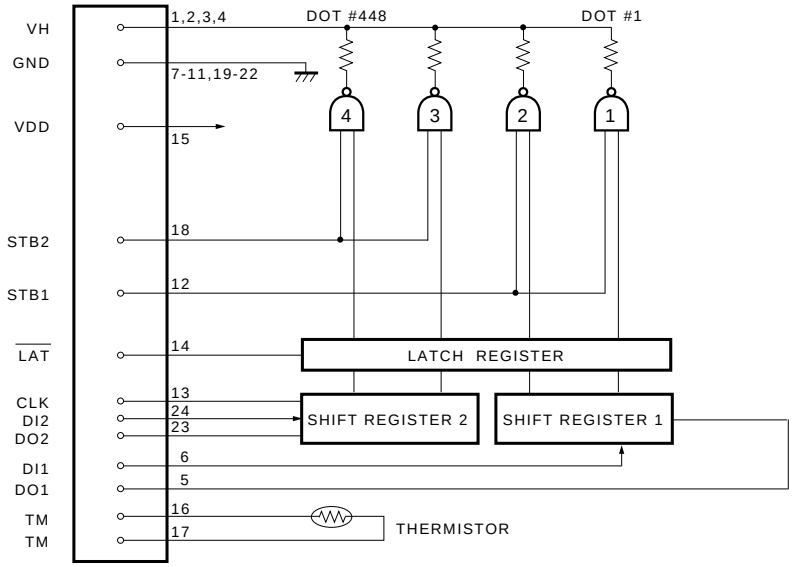


Fig.1

●**Pin assignments**

No.	Circuit
1	VH
2	VH
3	VH
4	VH
5	DO1
6	DI1
7	GND
8	GND
9	GND
10	GND
11	GND
12	STB1
13	CLK
14	$\overline{LAT}$

No.	Circuit
15	V_{DD}
16	TM
17	TM
18	STB2
19	GND
20	GND
21	GND
22	GND
23	DO2
24	DI2
25	VH
26	VH
27	VH
28	VH

●**Timing chart**

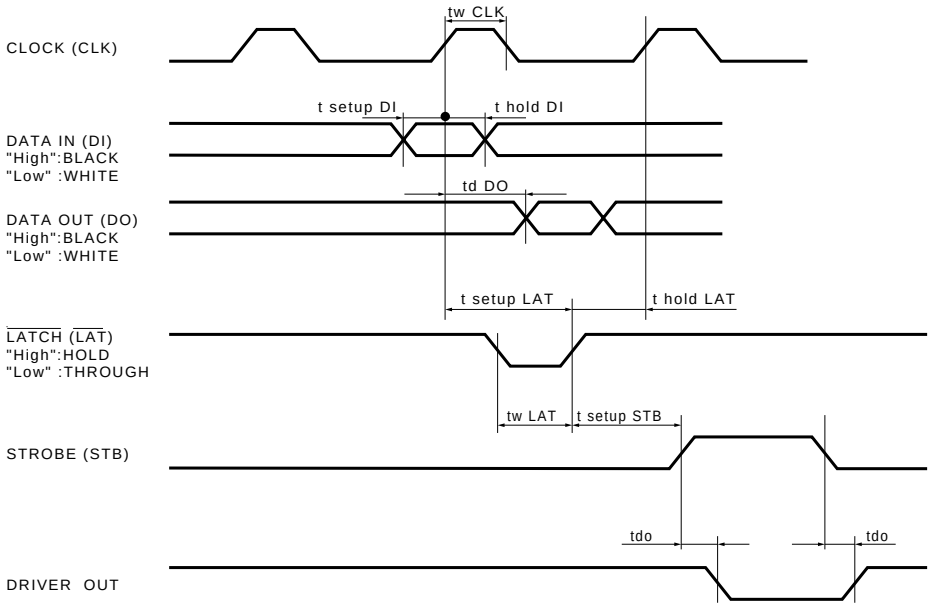


Fig.2

●**Characteristics**

Parameter	Symbol	Typical	Unit
Effective printing width	–	56.0	mm
Dot pitch	–	0.125	mm
Total dot number	–	448	dots
Average resistance value	Rave	650	Ω
Applied voltage	V_H	24	V
Applied power	P_O	0.78	W/dot
Print cycle	SLT	0.625	ms
Pulse width	T_{ON}	0.234	ms
Maximum number of dots energized simultaneously	–	448	dots
Maximum clock frequency	–	8	MHz
Maximum roller diameter	–	ϕ20.0	mm
Running life / pulse life	–	$50/5\times10^7$	km/pulses
Operating temperature	–	5~45	°C

●**Electrical characteristic curves**

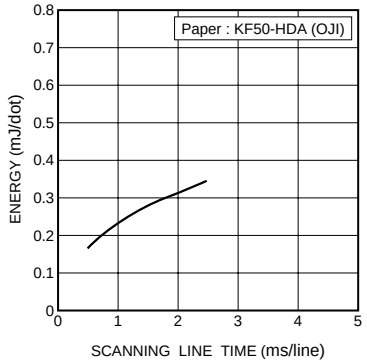


Fig.3 Adaptive speed chart

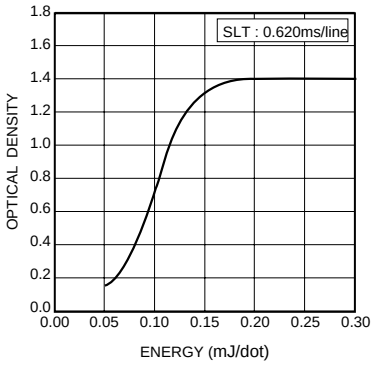


Fig.4 Representative density curve

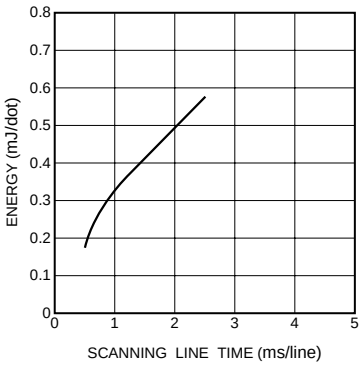


Fig.5 Maximum energy curve

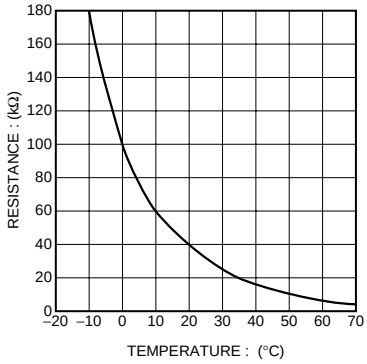


Fig.6 Thermistor curve

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