

Thick film thermal printhead (8 dots / mm) KD2008-CF10A

The KD2008-CF10A is a A4-size thick-film thermal printhead, developed mainly for handy printers for personal computers.

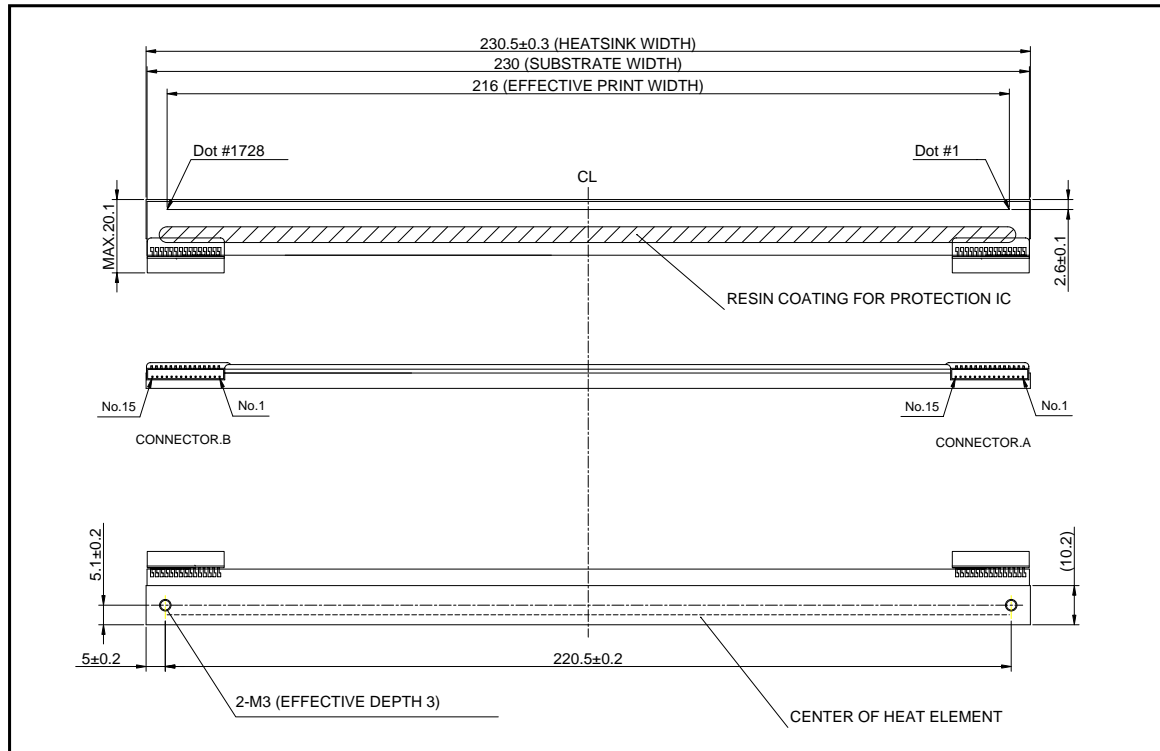
●Applications

Plain-paper printers
Low speed ticket vendors
Measuring terminal printers

●Features

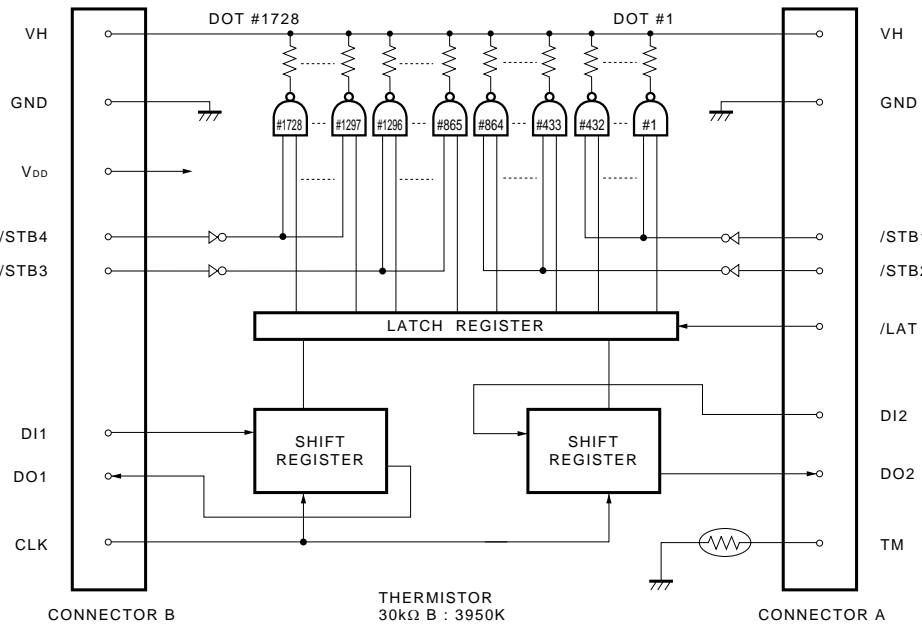
- 1) A new pin connector structure greatly reduces the size and weight.
- 2) A newly developed 144-bit IC levels the strobe partition and reduces the noise level.
- 3) One rank resistance value of $1000\Omega \pm 3\%$ eliminates provides good printing quality on rough paper.

●Dimensions (Unit : mm)



Printheads

●Equivalent circuit



STB No.	Dot No.	Dots / STB.
1	1 to 432	432
2	433 to 864	432
3	865 to 1296	432
4	1297 to 1728	432

DI No.	Dot No.	Dots / DI
1	865 to 1728	864
2	1 to 864	864

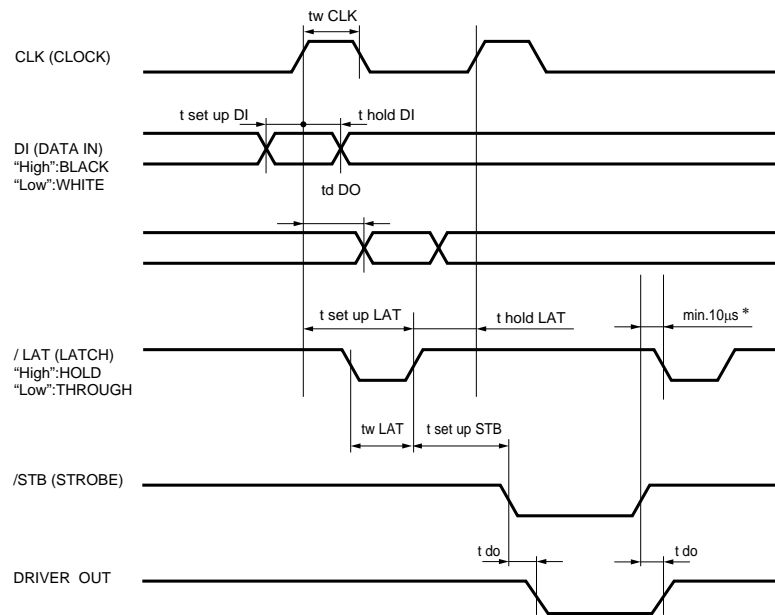
Fig.1

Printheads

●Pin assignments

CONNECTOR B		CONNECTOR A	
No.	Circuit	No.	Circuit
1	GND	1	VH
2	GND	2	VH
3	GND	3	VH
4	GND	4	VH
5	V _{DD}	5	DI2
6	/STB3	6	DO2
7	/STB4	7	/LAT
8	CLK	8	/STB1
9	DI1	9	/STB2
10	DO1	10	TM
11	VH	11	GND
12	VH	12	GND
13	VH	13	GND
14	VH	14	GND
15	VH	15	GND

●Timing chart



* If delay time for Driver Out can not be secured enough, there is a possibility that V_H would fluctuate greatly. Please design the circuit so that V_H does not exceed peak voltage (V_p).

Fig.2

Printheads

●Characteristics

Parameter	Symbol	Typical	Unit
Effective printing width	—	216	mm
Dot pitch	—	0.125	mm
Total dot number	—	1728	dots
Average resistance value	Rave	1000	Ω
Applied voltage	V _H	24.0	V
Applied power	P _O	0.39	W / dot
Print cycle	SLT	1.25	ms
Pulse width	T _{ON}	0.47	ms
Maximum number of dots energized simultaneously	—	864	dots
Maximum clock frequency	—	16	MHz
Maximum roller diameter	—	φ20.0	mm
Running life / pulse life	—	50 / 1×10 ⁸	km / pulses
Operating temperature	—	5 to 45	°C

●Electrical characteristic curves

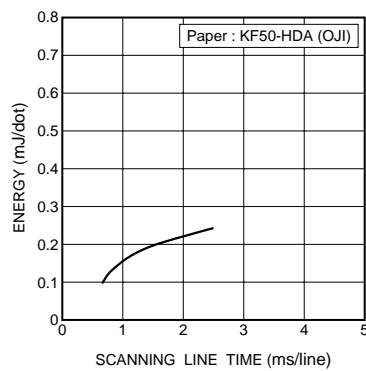


Fig.3 Adaptive speed chart

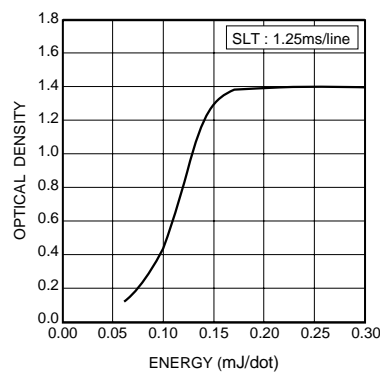


Fig.4 Representative density curve

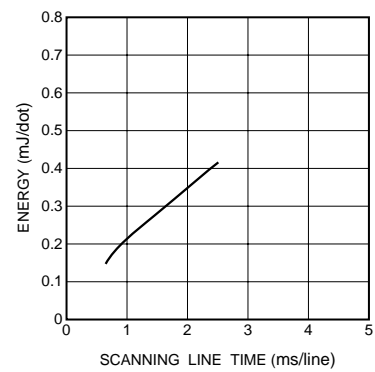


Fig.5 Maximum energy curve

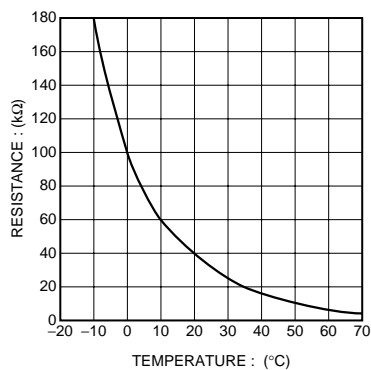


Fig.6 Thermistor curve

Notes

- No technical content pages of this document may be reproduced in any form or transmitted by any means without prior permission of ROHM CO.,LTD.
- The contents described herein are subject to change without notice. The specifications for the product described in this document are for reference only. Upon actual use, therefore, please request that specifications to be separately delivered.
- Application circuit diagrams and circuit constants contained herein are shown as examples of standard use and operation. Please pay careful attention to the peripheral conditions when designing circuits and deciding upon circuit constants in the set.
- Any data, including, but not limited to application circuit diagrams information, described herein are intended only as illustrations of such devices and not as the specifications for such devices. ROHM CO.,LTD. disclaims any warranty that any use of such devices shall be free from infringement of any third party's intellectual property rights or other proprietary rights, and further, assumes no liability of whatsoever nature in the event of any such infringement, or arising from or connected with or related to the use of such devices.
- Upon the sale of any such devices, other than for buyer's right to use such devices itself, resell or otherwise dispose of the same, no express or implied right or license to practice or commercially exploit any intellectual property rights or other proprietary rights owned or controlled by
- ROHM CO., LTD. is granted to any such buyer.
- Products listed in this document are no antiradiation design.

The products listed in this document are designed to be used with ordinary electronic equipment or devices (such as audio visual equipment, office-automation equipment, communications devices, electrical appliances and electronic toys).

Should you intend to use these products with equipment or devices which require an extremely high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), please be sure to consult with our sales representative in advance.

About Export Control Order in Japan

Products described herein are the objects of controlled goods in Annex 1 (Item 16) of Export Trade Control Order in Japan.

In case of export from Japan, please confirm if it applies to "objective" criteria or an "informed" (by MITI clause) on the basis of "catch all controls for Non-Proliferation of Weapons of Mass Destruction.