

# Thick film thermal printhead (8dots / mm)

## KD2008-AF10A

The KD2008-AF10A is a A4-size thick-film thermal printhead, developed mainly for plain-paper fax machines and portable printers. The makes conversion of printers from thermal transfers to direct thermal easier.

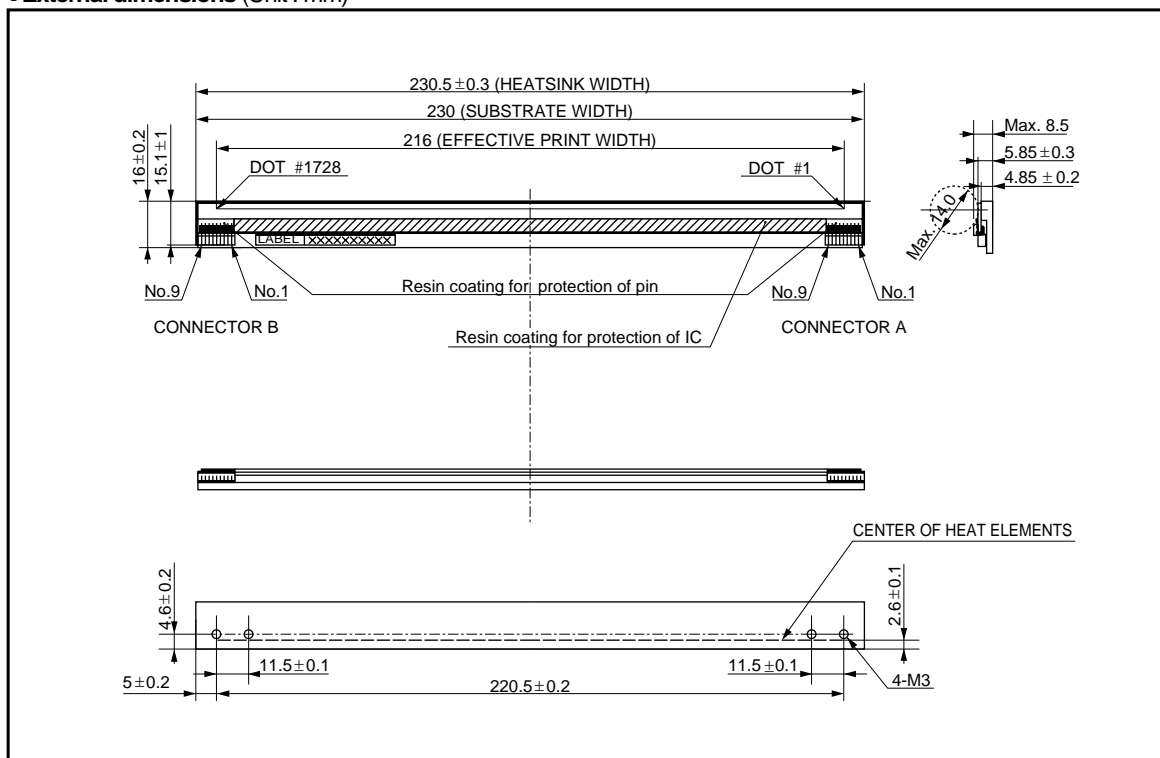
### ●Applications

Plain-paper facsimiles  
Portable printers  
Low speed ticket vendors  
Measuring terminal printers

### ●Features

- 1) Providing easy design solution of power supply with the same bit number for each strobe at A4 size FAX application by employing the first in the industry 216 bits Driver IC.
- 2) Achieved Logic voltage of 3.13 to 5.25V and provides the wide range of power supply voltage. Wide selection of electrical components is able to choose.
- 3) Employment of ROHM's own technology clip connector makes it possible to supply the goods without heat sink and substrate it self. This allows wide range of designing since substrate could be directly attached to the mechanism.

### ●External dimensions (Unit : mm)



Printheads

●Equivalent circuit

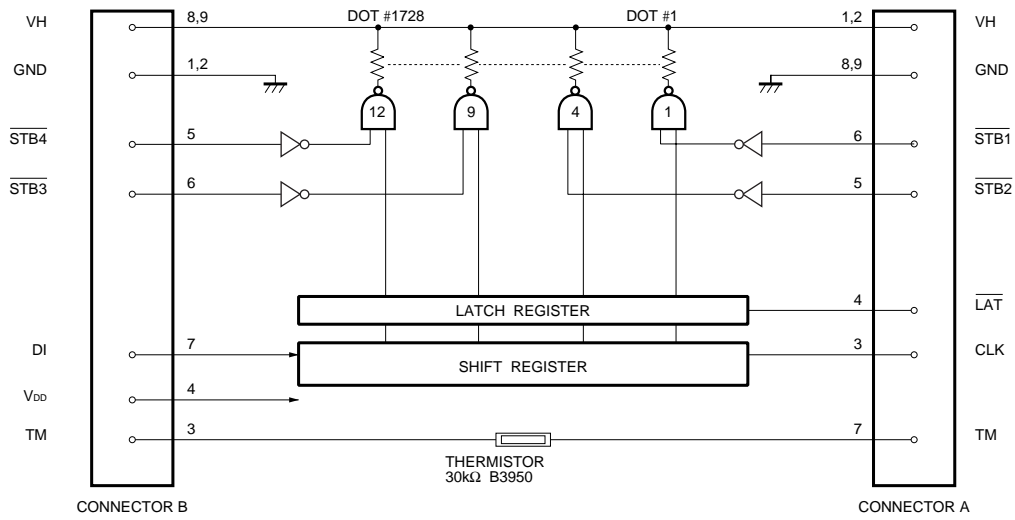


Fig.1

●Pin assignments

CONNECTOR B	
No.	Circuit
1	GND
2	GND
3	TM
4	V <sub>DD</sub>
5	$\overline{\text{STB4}}$
6	$\overline{\text{STB3}}$
7	DI
8	VH
9	VH

CONNECTOR A	
No.	Circuit
1	VH
2	VH
3	CLK
4	$\overline{\text{LAT}}$
5	$\overline{\text{STB2}}$
6	$\overline{\text{STB1}}$
7	TM
8	GND
9	GND

Printheads

●Timing chart

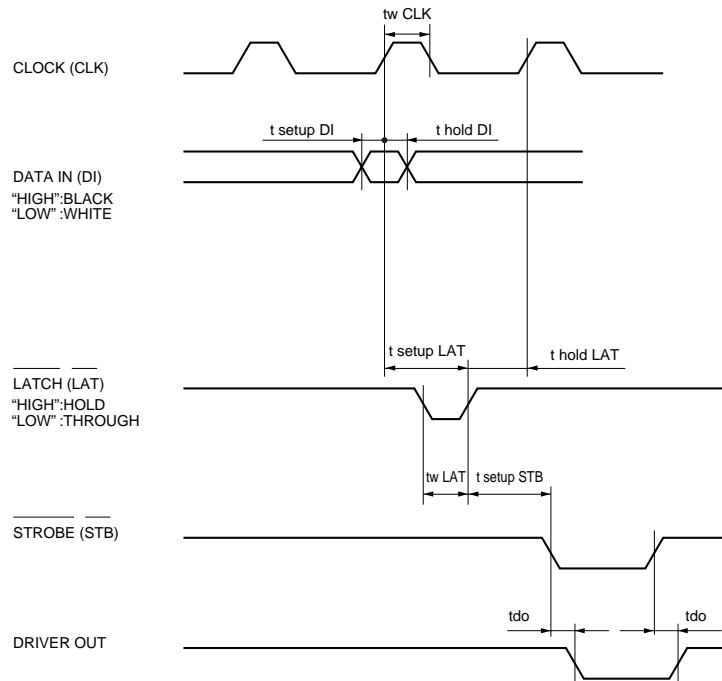


Fig.2

●Characteristics

Parameter	Symbol	Typical	Unit
Effective printing width	-	216.0	mm
Dot pitch	-	0.125	mm
Total dot number	-	1728	dots
Average resistance value	Rave	3000	$\Omega$
Applied voltage	V <sub>H</sub>	24.0	V
Applied power	P <sub>O</sub>	0.17	W/dot
Print cycle	SLT	10	ms
Pulse width	T <sub>ON</sub>	1.95	ms
Maximum number of dots energized simultaneously	-	432	dots
Maximum clock frequency	-	4	MHz
Maximum roller diameter	-	14.0	mm
Running life / pulse life	-	30/3 × 10 <sup>7</sup>	km/pulses
Operating temperature	-	5 to 45	°C

Printheads

●Electrical characteristic curves

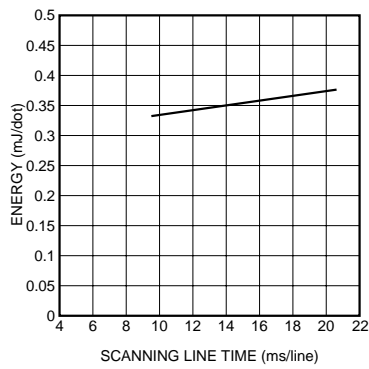


Fig.3 Adaptive speed chart

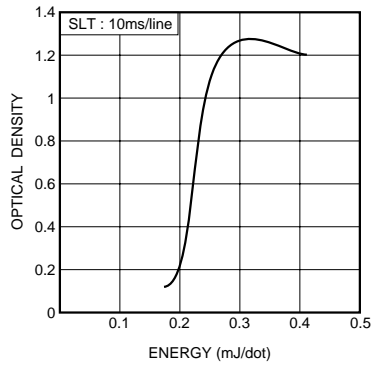


Fig.4 Representative density curve

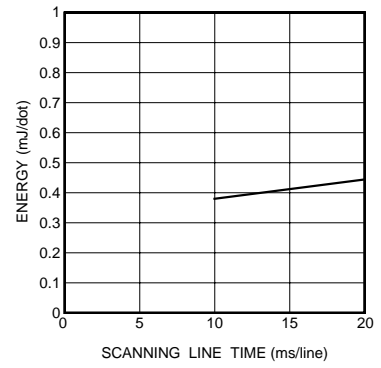


Fig.5 Maximum energy curve

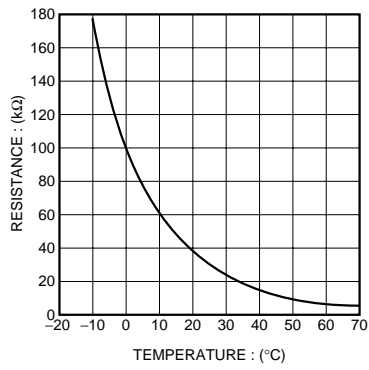


Fig.6 Thermistor curve

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