

# For Facsimiles 3.3V to 5V Printing Voltage (A Series)

## KA2008-AF10A

ROHM's A Series printheads for A4 paper size Facsimile applications utilize original integrated mounting technology, allowing for a wide range of logic voltages (3.13V to 5.25V).

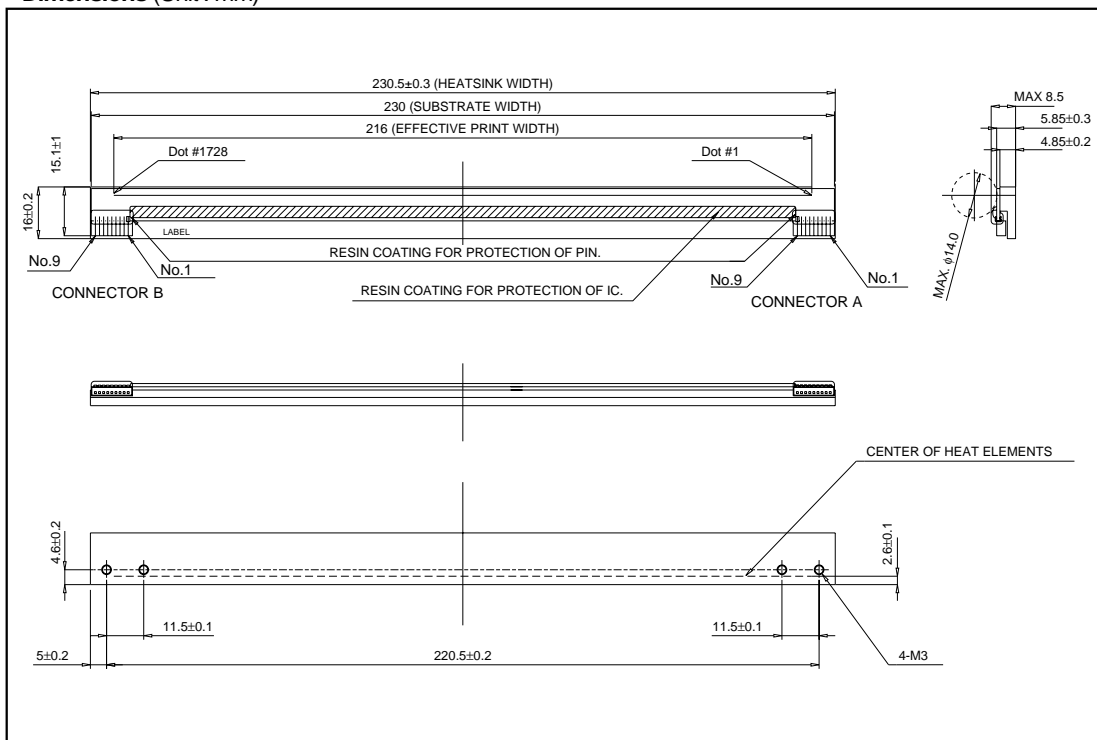
### ●Applications

Facsimiles  
Electric whiteboard  
Measuring terminal printers

### ●Features

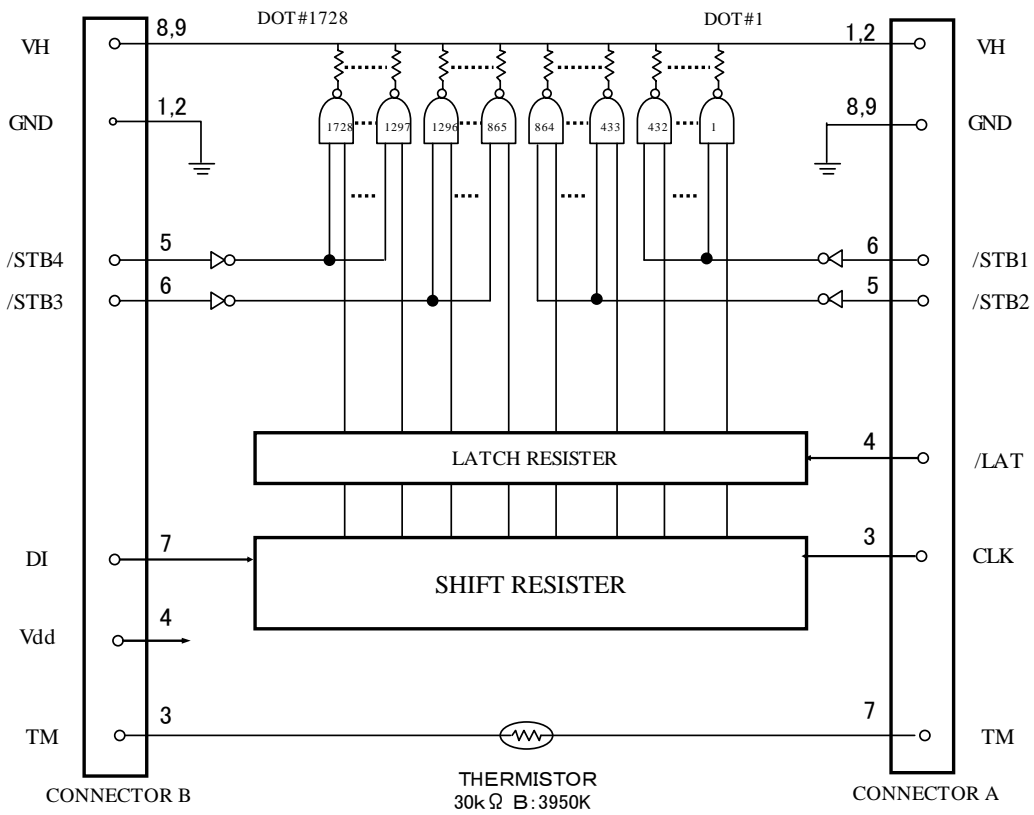
- 1) Providing easy design solution of power supply with the same bit number for each strobe at A4 size FAX application by employing the first in the industry 216 bits Driver IC.
- 2) Achieved Logic voltage of 3.13 to 5.25V and provides the wide range of power supply voltage. Wide selection of electrical 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.

### ●Dimensions (Unit : mm)



Printheads

●Equivalent circuit



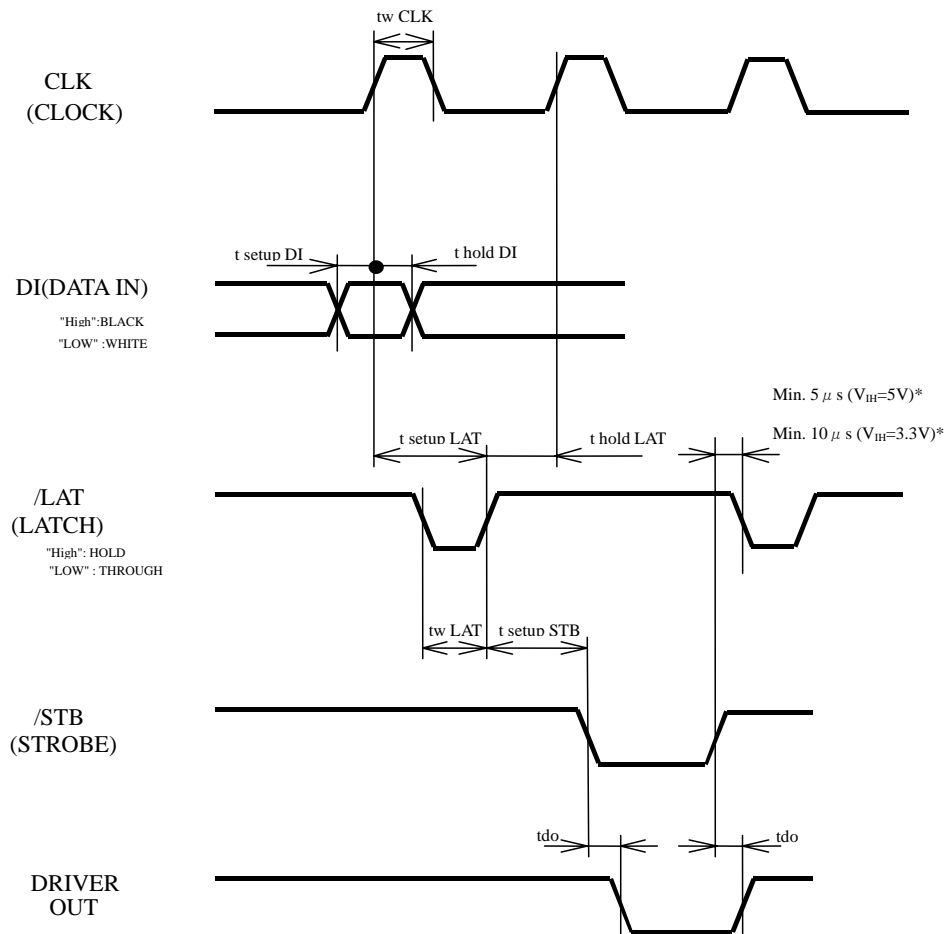
VH: 24 SUPPLY  
 /STB: STROBE (HIGH ACTIVE)  
 /LAT: LATCH  
 CLK: CLOCK  
 DI: DATA IN  
 GND: GROUND  
 TM: THERMISTOR

●Pin assignments

CONNECTOR B		CONNECTOR A	
No.	Circuit	No.	Circuit
1	GND	1	VH
2	GND	2	VH
3	TM	3	CLK
4	V <sub>DD</sub>	4	$\overline{\text{LAT}}$
5	$\overline{\text{STB4}}$	5	$\overline{\text{STB2}}$
6	$\overline{\text{STB3}}$	6	$\overline{\text{STB1}}$
7	DI	7	TM
8	VH	8	GND
9	VH	9	GND

## Printheads

## ●Timing chart



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

## ●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	$V_H$	24.0	V
Applied power	$P_o$	0.17	W/dot
Print cycle	SLT	10	ms
Pulse width	$T_{ON}$	1.95	ms
Maximum number of dots energized simultaneously	—	432	dots
Maximum clock frequency	—	4	MHz
Maximum roller diameter	—	$\phi 14.0$	mm
Running life / pulse life	—	$30/3 \times 10^7$	km/pulses
Operating temperature	—	5~45	$^{\circ}C$

Printheads

●Electrical characteristic curves

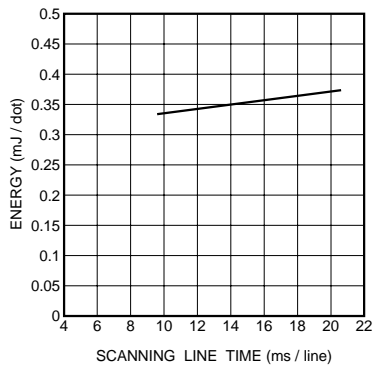


Fig.3 Adaptive speed chart

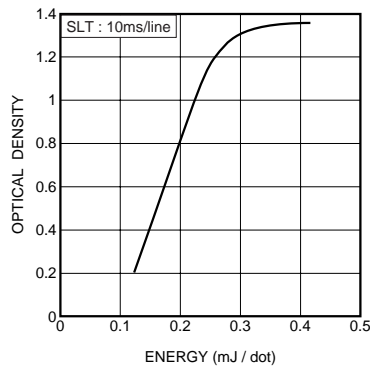


Fig.4 Representative density curve

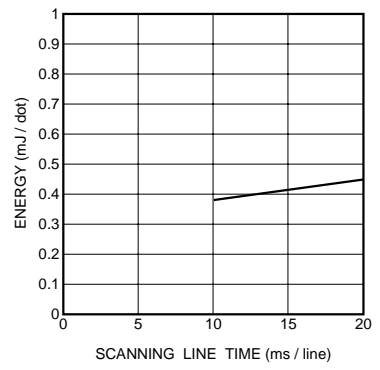


Fig.5 Maximum energy curve

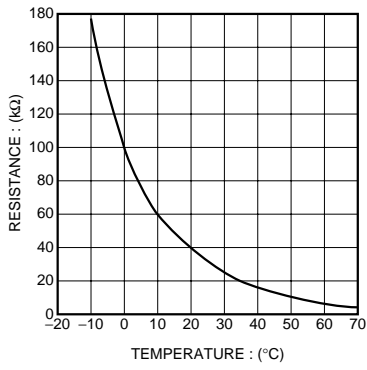


Fig.6 Thermistor curve

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