

# Compact Battery drivable thick film thermal printhead (8dots / mm)

## KA2002-BE10A

Compact and lightweight they are ideal print heads for handheld printers and PDAs (personal digital assistants).

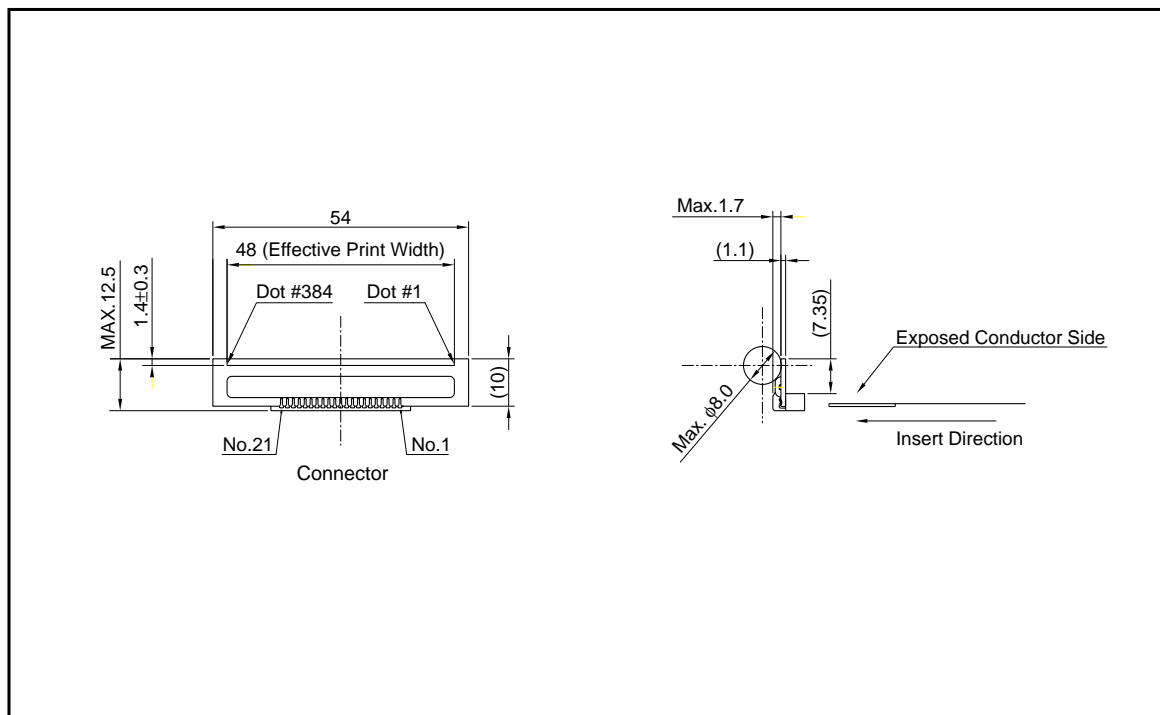
### ●Applications

Mobile printers  
EFT-POS printers  
Hand-held printers  
Debit printers

### ●Features

- 1) The B series brings reduced height of protective resin for IC and enlarged paper pathway for thermal papers. Thanks to ROHM's latest LSI high integrated mounting technology and it's ultra slim 192bit driver IC.
- 2) The B series accede the great world class low energy consumption characteristics of GP series.
- 3) Because the print heads circuits draw 2.7V, the printer can be driven using a single lithium battery.

### ●External dimensions (Unit : mm)



Printheads

●Equivalent circuit

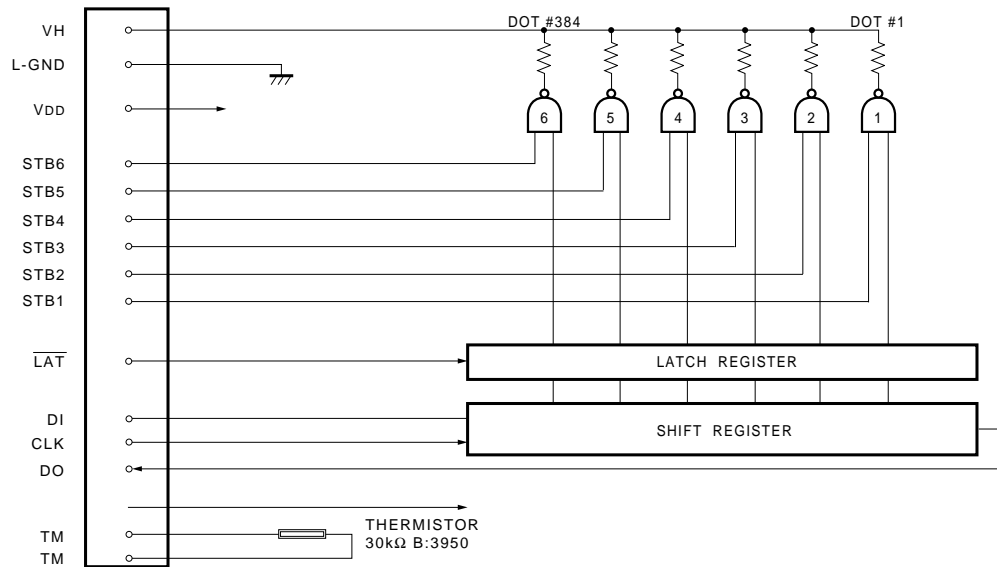


Fig.1

●Pin assignments

No.	Circuit	No.	Circuit
1	VH	12	V <sub>DD</sub>
2	VH	13	STB4
3	DO	14	STB5
4	$\overline{\text{LAT}}$	15	STB6
5	GND	16	GND
6	GND	17	GND
7	STB1	18	CLK
8	STB2	19	DI
9	STB3	20	VH
10	TM	21	VH
11	TM		

Note) The GND terminal 5 and 6 are not connected with the GND terminal 16 and 17.  
 These terminals shall be connected each other at the closest point to the printhead.

## Printheads

### ●Timing chart

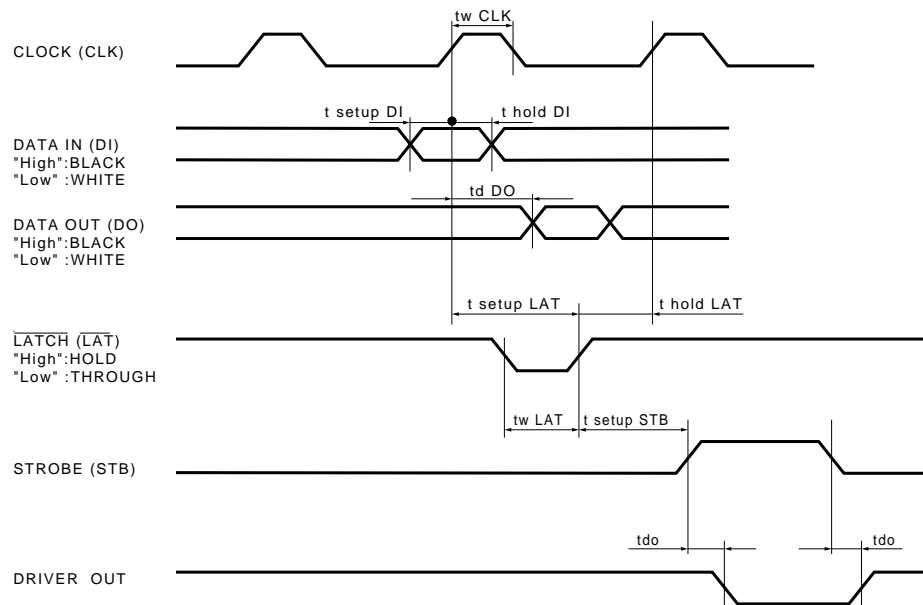


Fig.2

### ●Characteristics

Parameter	Symbol	Typical	Unit
Effective printing width	—	48	mm
Dot pitch	—	0.125	mm
Total dot number	—	384	dots
Average resistance value	Rave	176	$\Omega$
Applied voltage	V <sub>H</sub>	7.2	V
Applied power	P <sub>o</sub>	0.27	W/dot
Print cycle	SLT	1.25	ms
Pulse width	T <sub>ON</sub>	0.49	ms
Maximum number of dots energized simultaneously	—	64	dots
Maximum clock frequency	—	8	MHz
Maximum roller diameter	—	$\phi 8.0$	mm
Running life / pulse life	—	50/1 $\times 10^6$	km/pulses
Operating temperature	—	0~50	$^{\circ}\text{C}$

Printheads

●Electrical characteristic curves

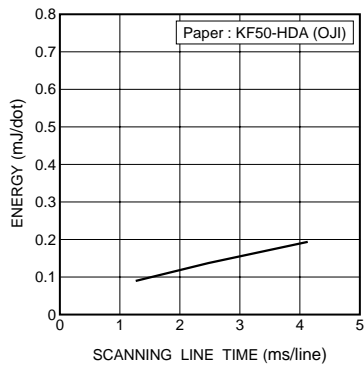


Fig.3 Adaptive speed chart

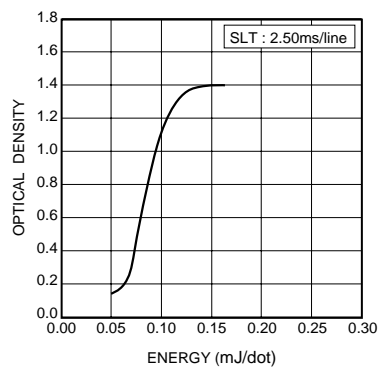


Fig.4 Representative density curve

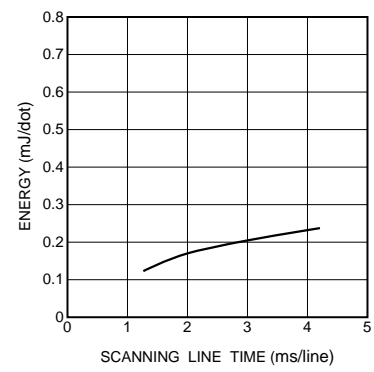


Fig.5 Maximum energy curve

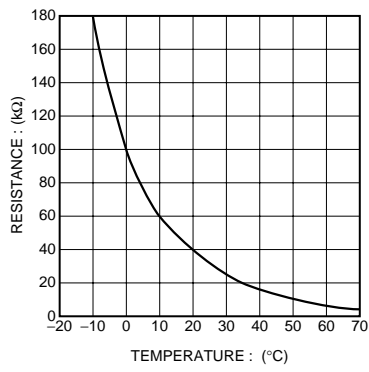


Fig.6 Thermistor curve

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