

For Mobile, FET-POS, Debit Card, PDA, ECR 2.7V Print Voltage (B Series)

KA2004-BE51A

Not only hand-held printers, but card payment terminals (EFT-POS) and compact label printers require less than 8.5V of supply voltage.

ROHM's B Series of thermal printheads, developed using cutting-edge LSI technology, can operate on a single lithium ion battery and contribute to end-product miniaturization.

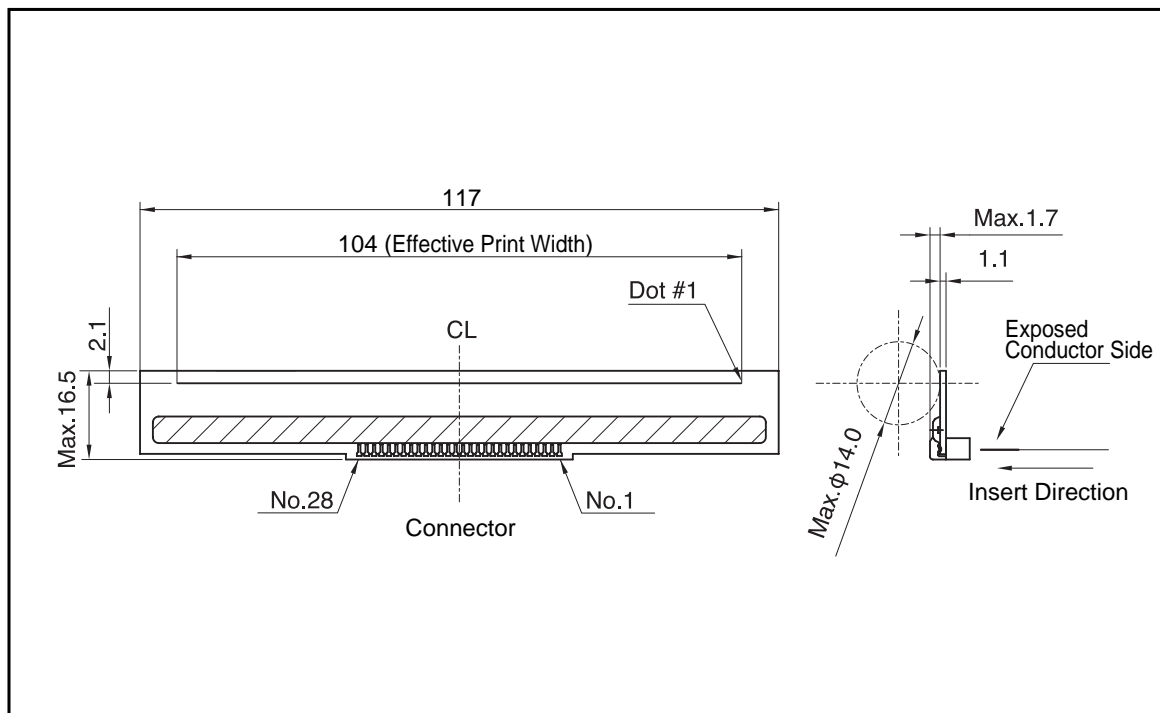
●Applications

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

●Features

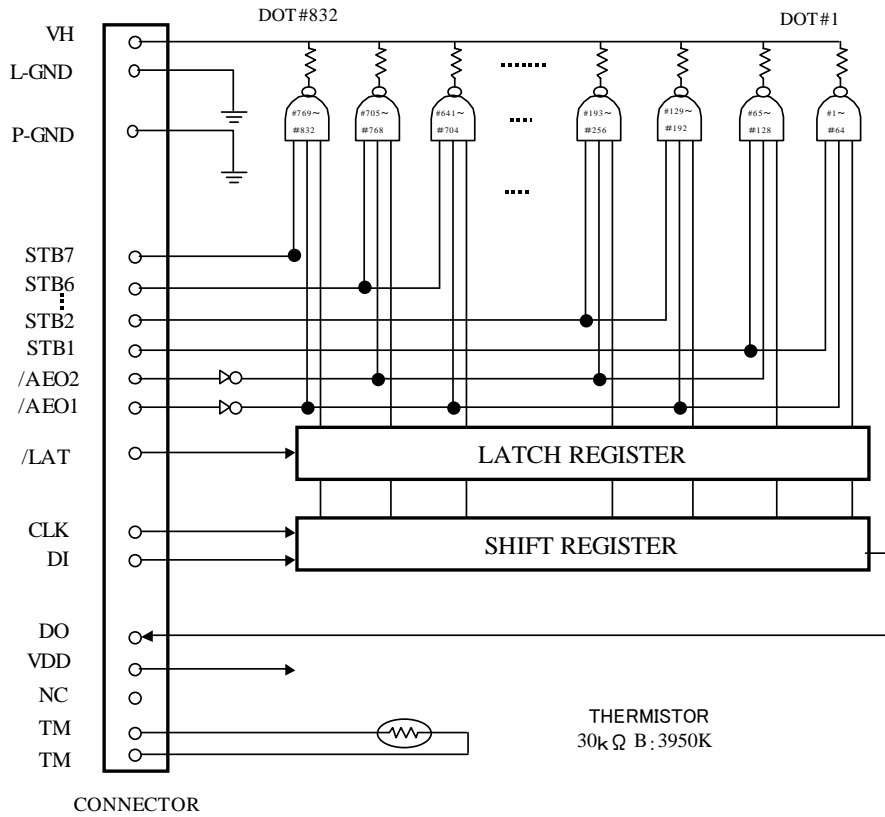
- 1) The B series brings reduced height of protective resin for IC and enlarged paper pathway for thermal papers. Thanks to ROHM's latest LSI high integrated mounting technology and it's ultra slim driver IC.
- 2) The B series accede the great world class low energy consumption characteristics of GP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

●Dimensions (Unit : mm)



Printheads

●Equivalent circuit

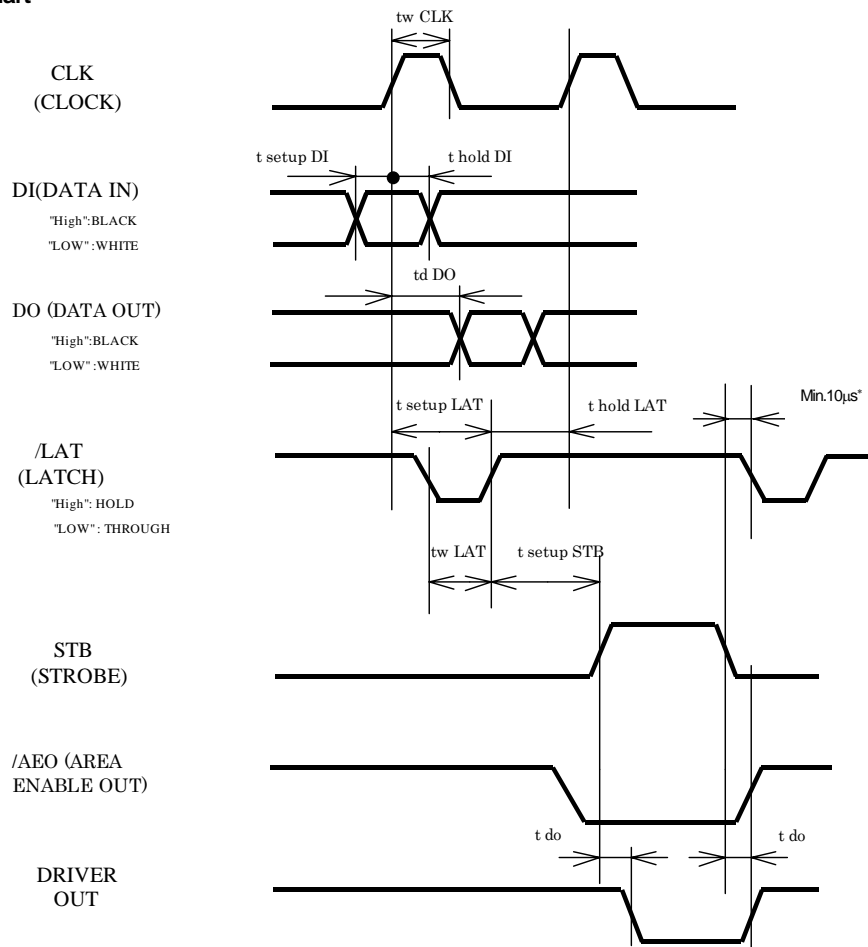


●Pin assignments

No.	Circuit	No.	Circuit
1	V _H	15	P-GND
2	V _H	16	P-GND
3	V _H	17	P-GND
4	DO	18	L-GND
5	/LAT	19	/AEO1
6	CLK	20	/AEO2
7	V _{DD}	21	STB4
8	STB1	22	STB5
9	STB2	23	STB6
10	STB3	24	STB7
11	TM	25	DI
12	TM	26	V _H
13	P-GND	27	V _H
14	P-GND	28	V _H

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 (V_p).

●Characteristics

Parameter	Symbol	Typical	Unit
Effective printing width	—	104	mm
Dot pitch	—	0.125	mm
Total dot number	—	832	dots
Average resistance value	Rave	176	Ω
Applied voltage	V_H	7.2	V
Applied power	P_o	0.24	W/dot
Print cycle	SLT	1.25	ms
Pulse width	T_{ON}	0.55	ms
Maximum number of dots energized simultaneously	—	64	dots
Maximum clock frequency	—	8	MHz
Maximum roller diameter	—	$\phi 14$	mm
Running life / pulse life	—	$50/1 \times 10^8$	km/pulses
Operating temperature	—	5 to 45	$^{\circ}\text{C}$

Printheads

●Electrical characteristic curves

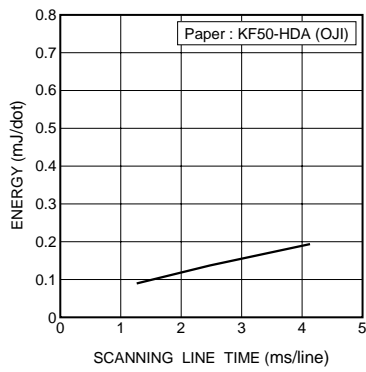


Fig.1 Adaptive speed chart

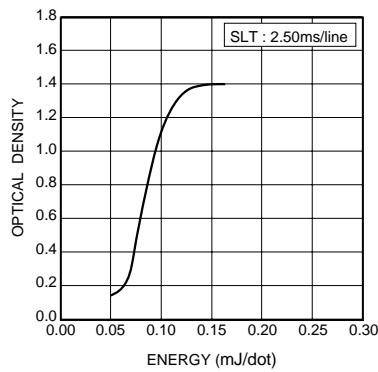


Fig.2 Representative density curve

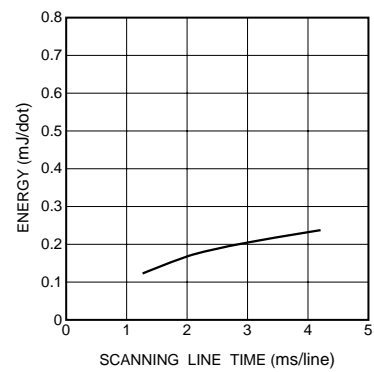


Fig.3 Maximum energy curve

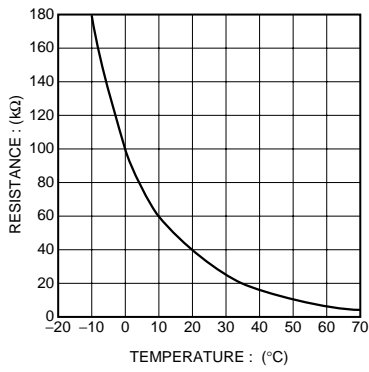


Fig.4 Thermistor curve

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