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

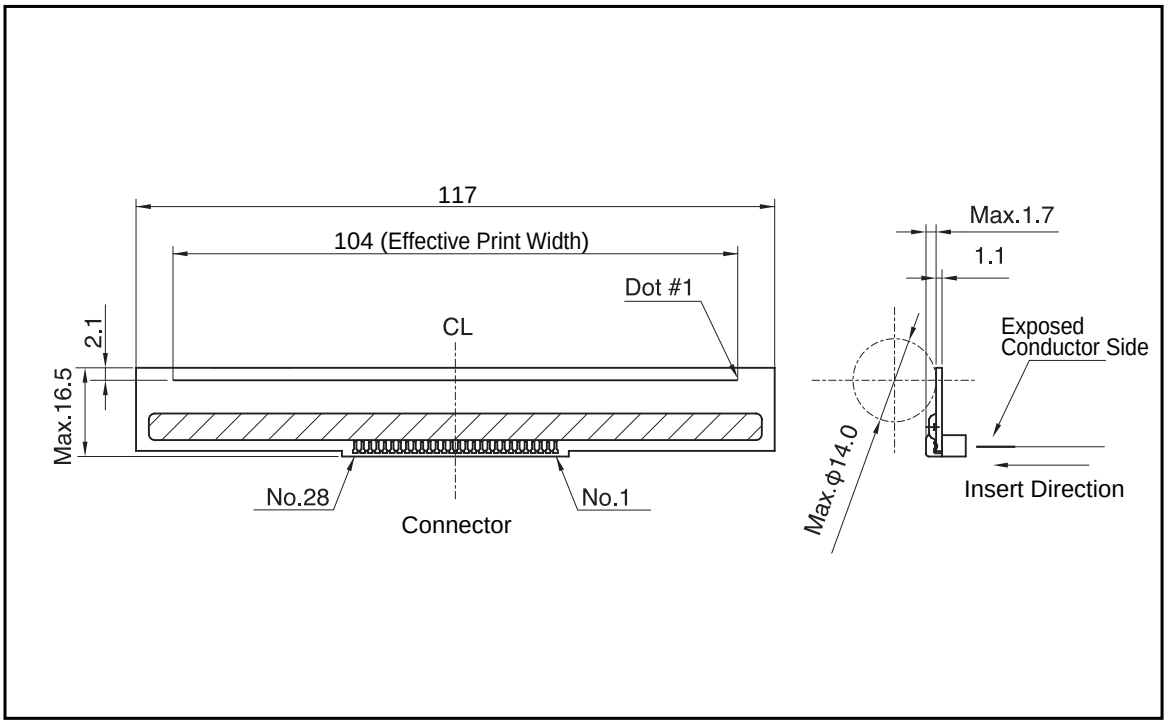
KA2004-BE51A

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.

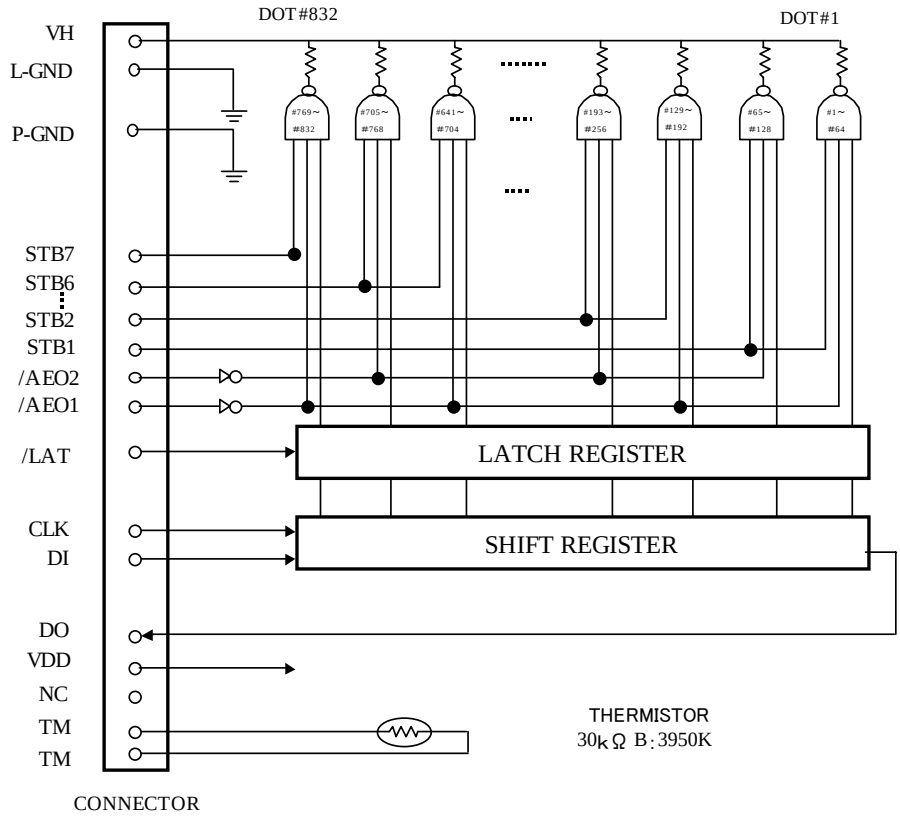
●Applications
Mobile printers
EFT-POS printers
Hand-held printers
Debit printers

●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)



●**Equivalent circuit**

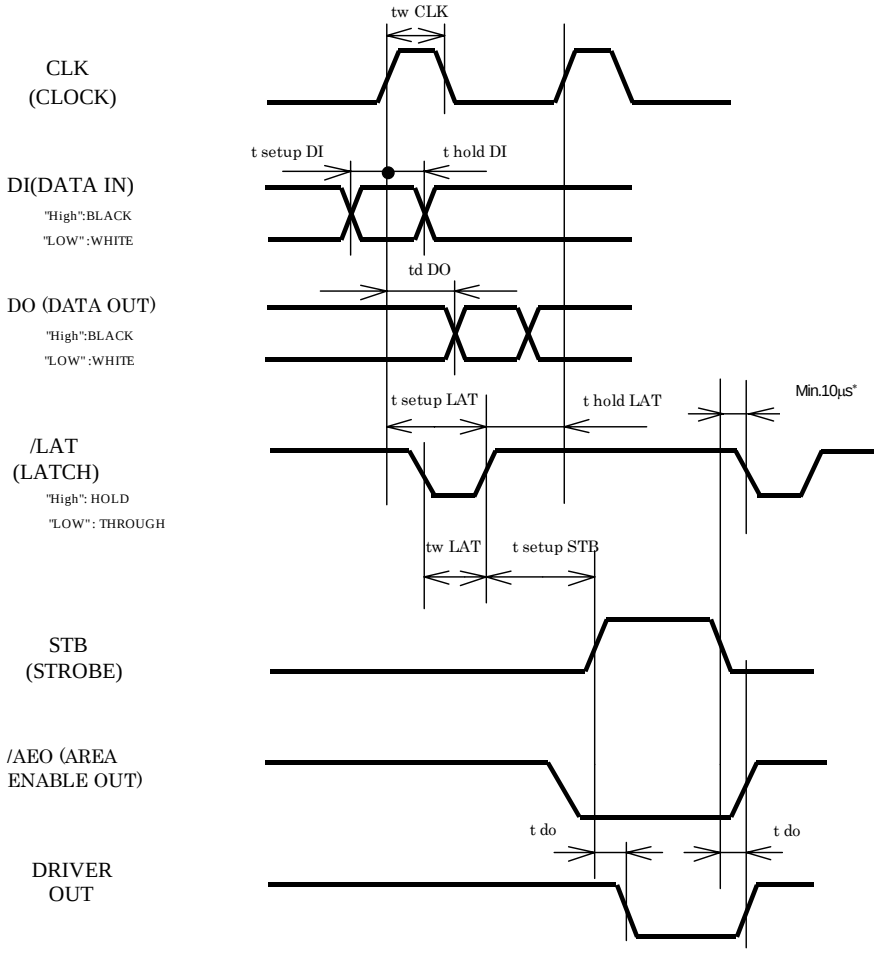


●**Pin assignments**

No.	Circuit
1	V_H
2	V_H
3	V_H
4	DO
5	/LAT
6	CLK
7	V_{DD}
8	STB1
9	STB2
10	STB3
11	TM
12	TM
13	P-GND
14	P-GND

No.	Circuit
15	P-GND
16	P-GND
17	P-GND
18	L-GND
19	/AEO1
20	/AEO2
21	STB4
22	STB5
23	STB6
24	STB7
25	DI
26	V_H
27	V_H
28	V_H

●**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	–	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	–	ϕ14	mm
Running life / pulse life	–	$50/1\times10^8$	km/pulses
Operating temperature	–	5 to 45	°C

●**Electrical characteristic curves**

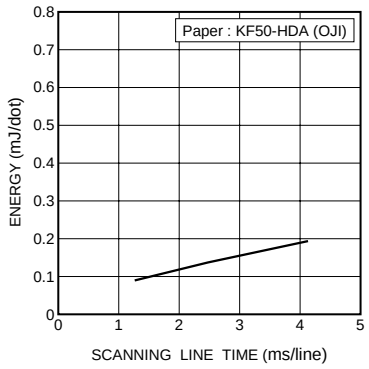


Fig.1 Adaptive speed chart

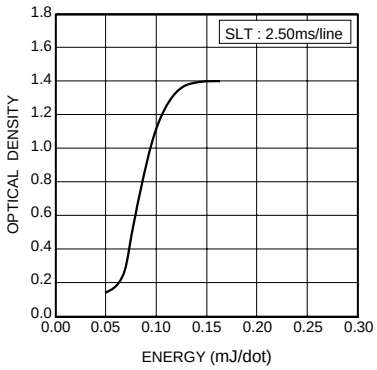


Fig.2 Representative density curve

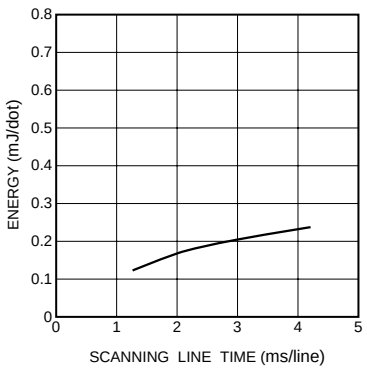


Fig.3 Maximum energy curve

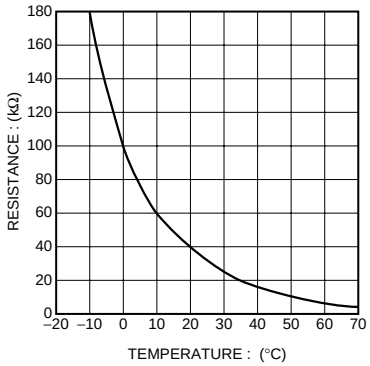


Fig.4 Thermistor curve

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