

# For Color Photo Printers (300DPI ; dots / inch)

## NF3004-RE10A

The NF3004-RE10 Series are suitable for small photo printers which can make direct print out from digital still cameras and mobile phones. ROHM's technology based on "Step-free" structure enables battery drive, and high resolution printing quality.

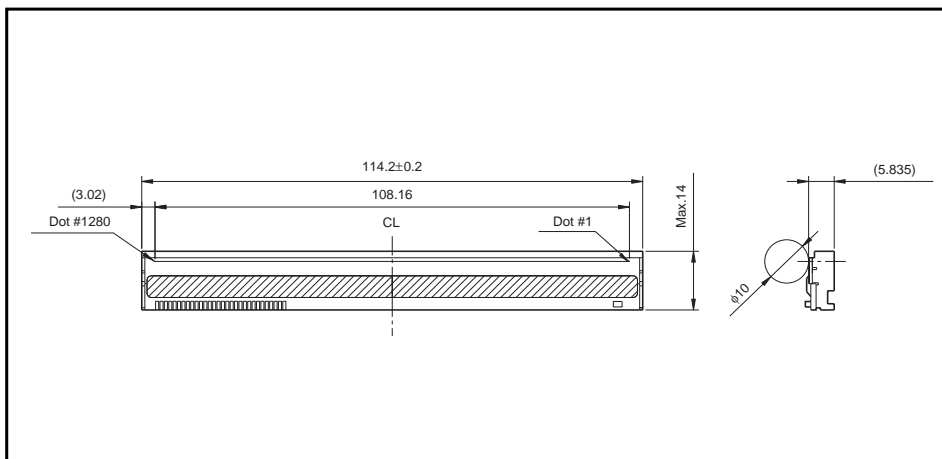
### ●Applications

Home printers  
Mobile Photo printers  
Photo kiosk terminals  
"Print club" (color photo printer) terminals

### ●Features

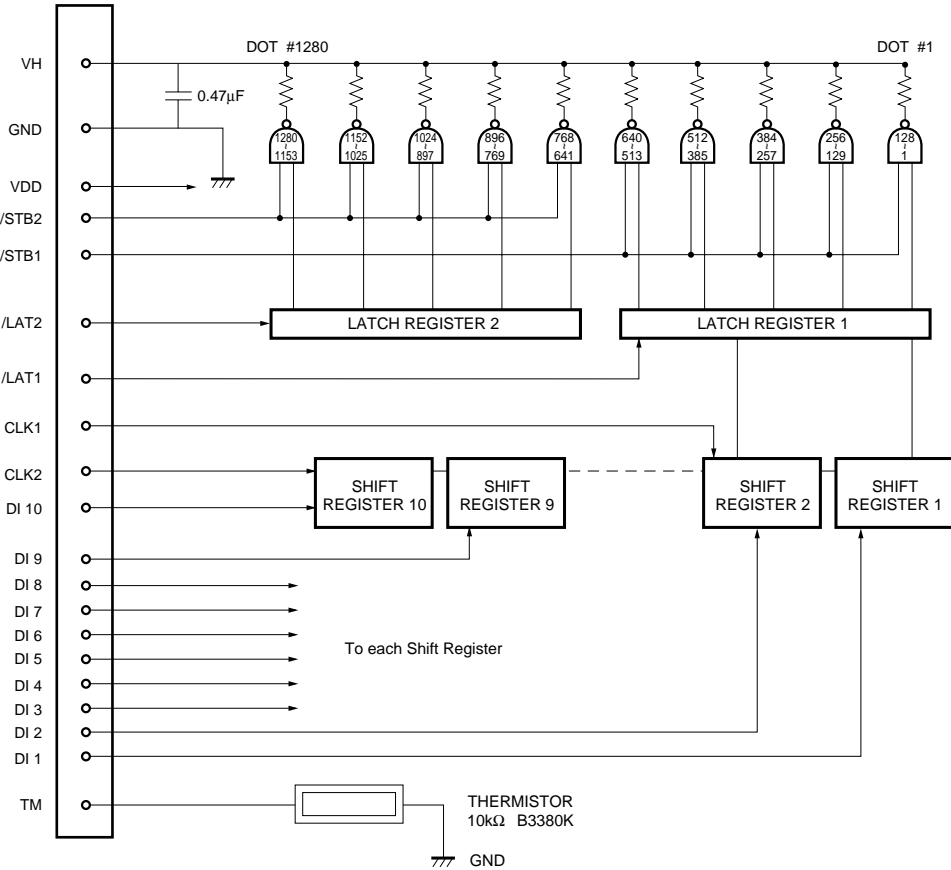
- 1) NF3004-VC20 is drivable with batteries, thanks to its low energy consumption.
- 2) NF3004-VC20 enables full color printing by keeping the adjacent resistance variation less than  $\pm 1.5\%$ .
- 3) Employing of the driver IC capable of high-speed data transfer at 3.3 circuit supply voltage makes the gradation printing control easier.
- 4) High dot reproducibility with step-free structure.

### ●External dimensions (Unit : mm)



Note: No heat control function inside the thermal printhead. External heat history control is required for high speed printing.

●Equivalent circuit



DI No.	DOT No.	DI No.	DOT No.
10	1280 to 1153	5	640 to 513
9	1152 to 1025	4	512 to 385
8	1024 to 897	3	384 to 257
7	896 to 769	2	256 to 129
6	768 to 641	1	128 to 1

/STB No.	DOT No.
2	1280 to 641
1	640 to 1

Fig.1

Printheads

●Pin assignments

No.	Circuit	No.	Circuit	No.	Circuit
1	GND	2	V <sub>H</sub>	3	V <sub>H</sub>
4	V <sub>H</sub>	5	GND	6	CLK 2
7	GND	8	/LAT 2	9	/STB 2
10	TM	11	DI 10	12	DI 9
13	DI 8	14	DI 7	15	DI 6
16	DI 5	17	DI 4	18	DI 3
19	DI 2	20	DI 1	21	V <sub>DD</sub>
22	/STB 1	23	/LAT 1	24	GND
25	CLK 1	26	GND	27	V <sub>H</sub>
28	V <sub>H</sub>	29	V <sub>H</sub>	30	GND

●Timing chart

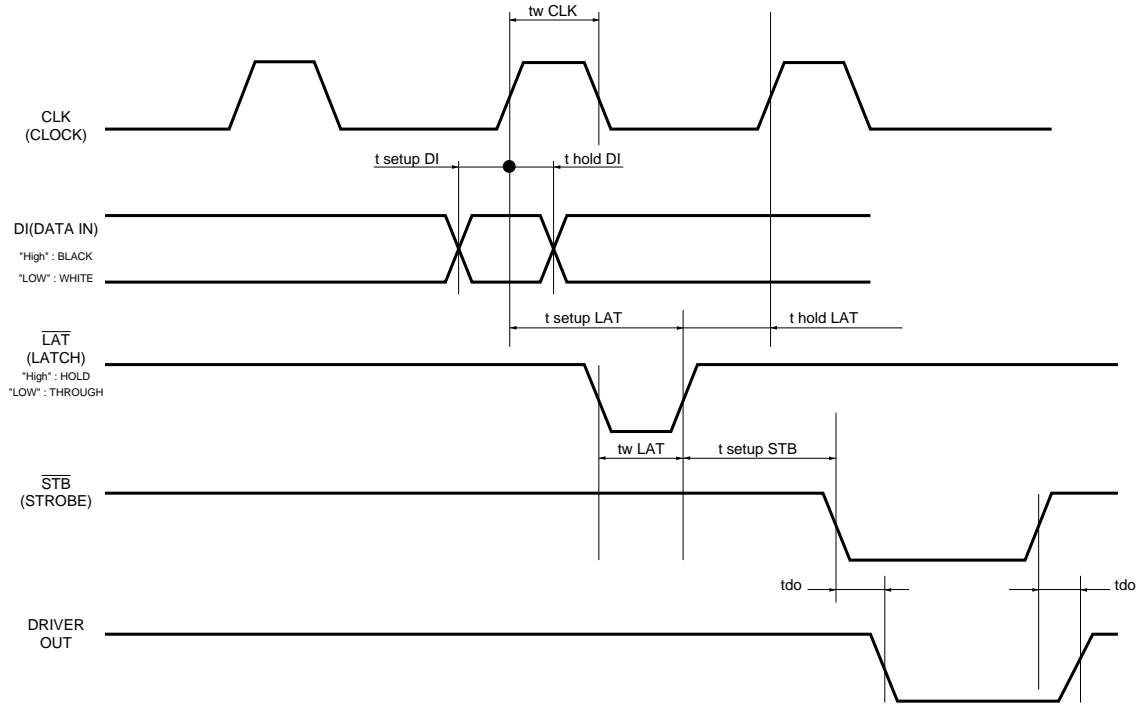


Fig.2

## Printheads

## ●Characteristics

Parameter	Symbol	Typical	Unit
Effective printing width	–	108.16	mm
Dot pitch	–	0.0845	mm
Total dot number	–	1280	dots
Average resistance value	Rave	2800	$\Omega$
Applied voltage	V <sub>H</sub>	13.3	V
Applied power	P <sub>o</sub>	0.061	W/dot
Print cycle	SLT	4.5	ms/line
Pulse width	T <sub>ON</sub>	2.25	ms
Maximum number of dots energized simultaneously	–	640	dots
Maximum clock frequency	–	16	MHz
Maximum rolls diameter	–	10	mm
Running life / pulse life	–	2/5×10 <sup>7</sup>	km/pulses
Operating temperature	–	5 to 45	°C

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