

Compact low voltage thick film thermal printhead (12dots / mm)

KF3004-GF11A

KF3004-GF11A of low voltage thermal printheads have a 1.25-mm pitch connectors and reduced power supply circuit voltage requirements. This makes them useful for a wide range of applications, including CAT, FET-POS and naturally, handheld devices that demand printer heads which can operate with low supplied voltage.

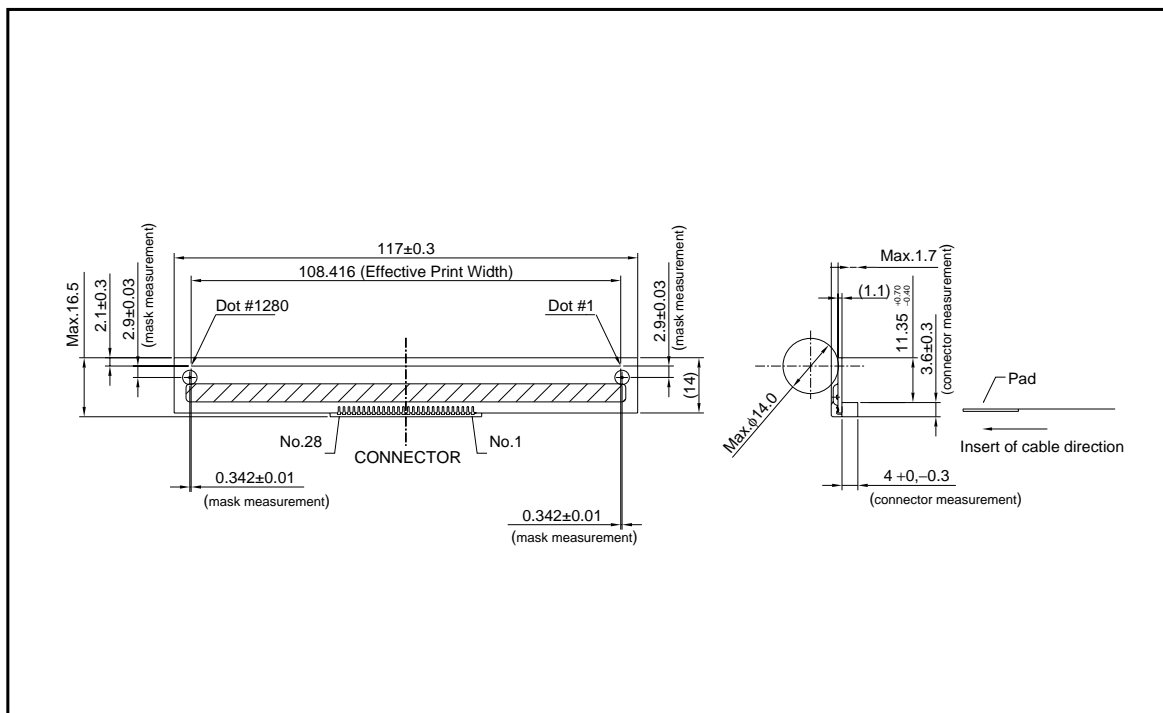
●Applications

Mobile printers
FET-POS printers
Hand-held printers
Debit printers

●Features

- 1) Both the circuit voltage and the voltage required during printing are 3.3V ; this allows the design of complete printer assemblies with energy-saving low power consumption.
- 2) KF3004-GF11A has a resistance value of 210Ω and can take a maximum current of 8.5V for printing. This is useful in applications where the peak voltage is restricted.
- 3) Because the connectors accept 1.25-mm pitch FFC (Flexible flat cables) it is possible to reduce the size of printer mechanism control boards.

●External dimensions (Unit : mm)



Printheads

●Equivalent circuit

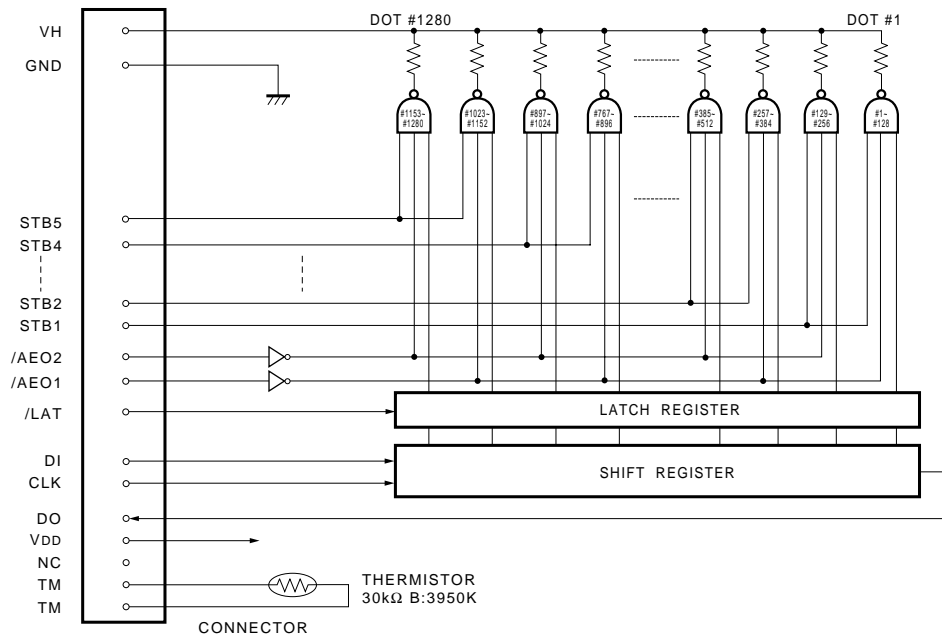


Fig.1

●Pin assignments

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

Printheads

●Timing chart

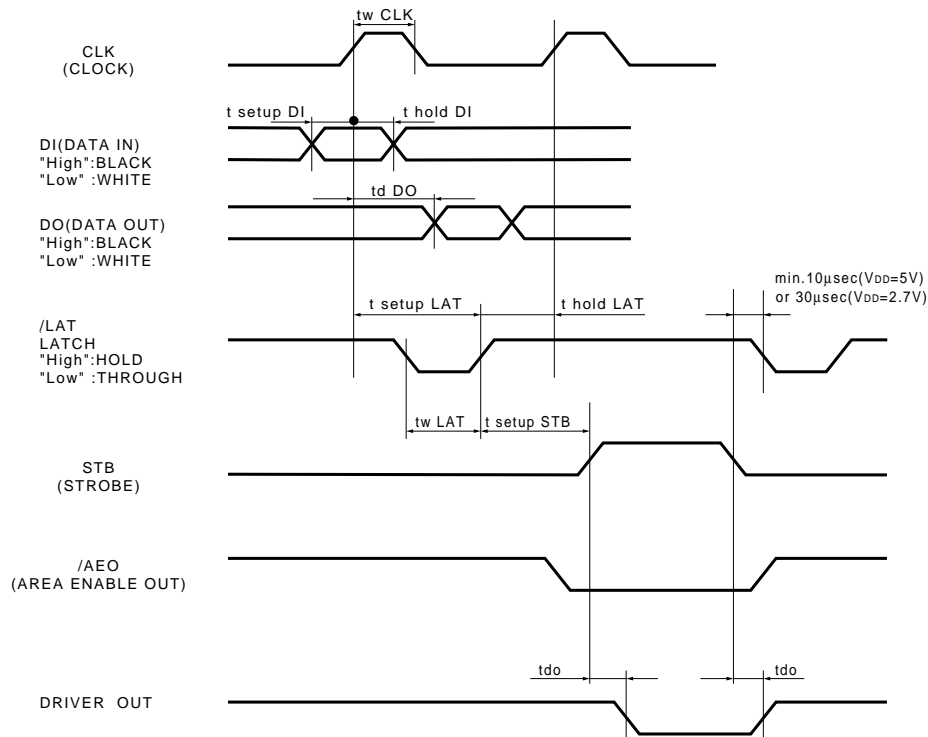


Fig.2

●Characteristics

Parameter	Symbol	Typical	Unit
Effective printing width	-	108.416	mm
Dot pitch	-	0.0847	mm
Total dot number	-	1280	dots
Average resistance value	Rave	210	Ω
Applied voltage	V_H	7.2	V
Applied power	P_O	0.17	W/dot
Print cycle	SLT	0.847	ms
Pulse width	T_{ON}	0.6	ms
Maximum number of dots energized simultaneously	-	256	dots
Maximum clock frequency	-	8	MHz
Maximum roller diameter	-	$\phi 14.0$	mm
Running life / pulse life	-	$66/1 \times 10^8$	km/pulses
Operating temperature	-	0~50	$^{\circ}\text{C}$

Printheads

●Electrical characteristic curves

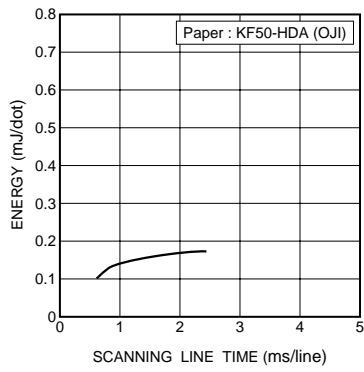


Fig.3 Adaptive speed chart

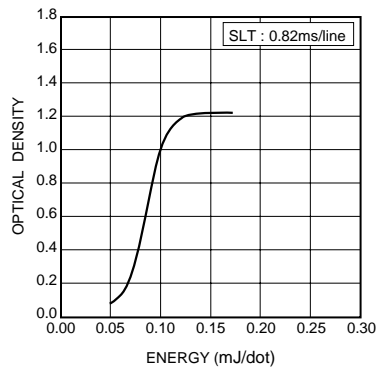


Fig.4 Representative density curve

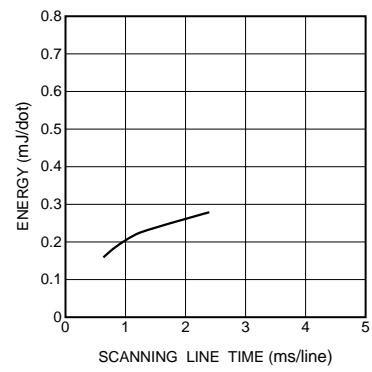


Fig.5 Maximum energy curve

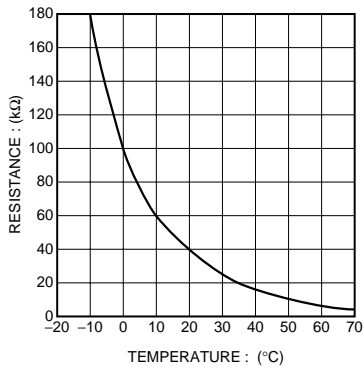


Fig.6 Thermistor curve

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