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.

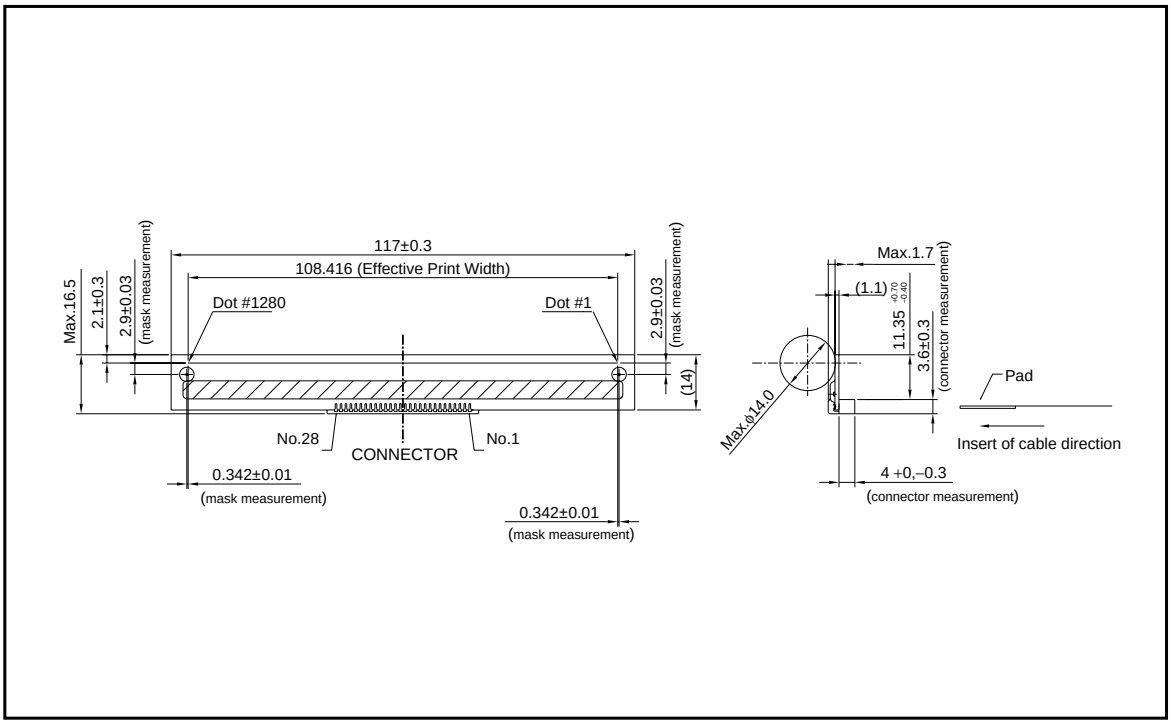
●Applications

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)



●**Equivalent circuit**

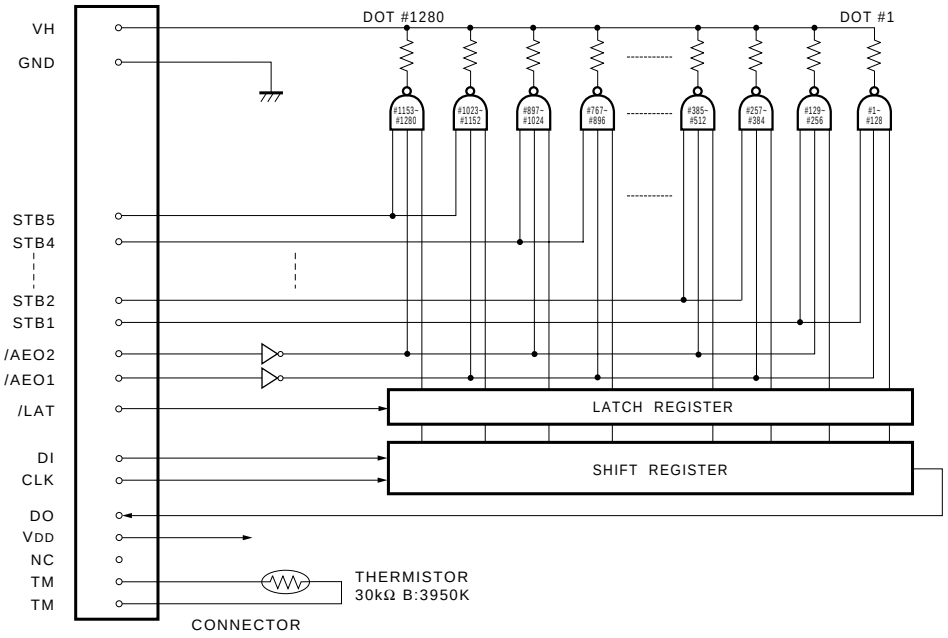


Fig.1

●**Pin assignments**

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

No.	Circuit
15	GND
16	GND
17	GND
18	GND
19	/AEO1
20	/AEO2
21	STB3
22	STB4
23	STB5
24	N.C.
25	DI
26	V_H
27	V_H
28	V_H

●**Timing chart**

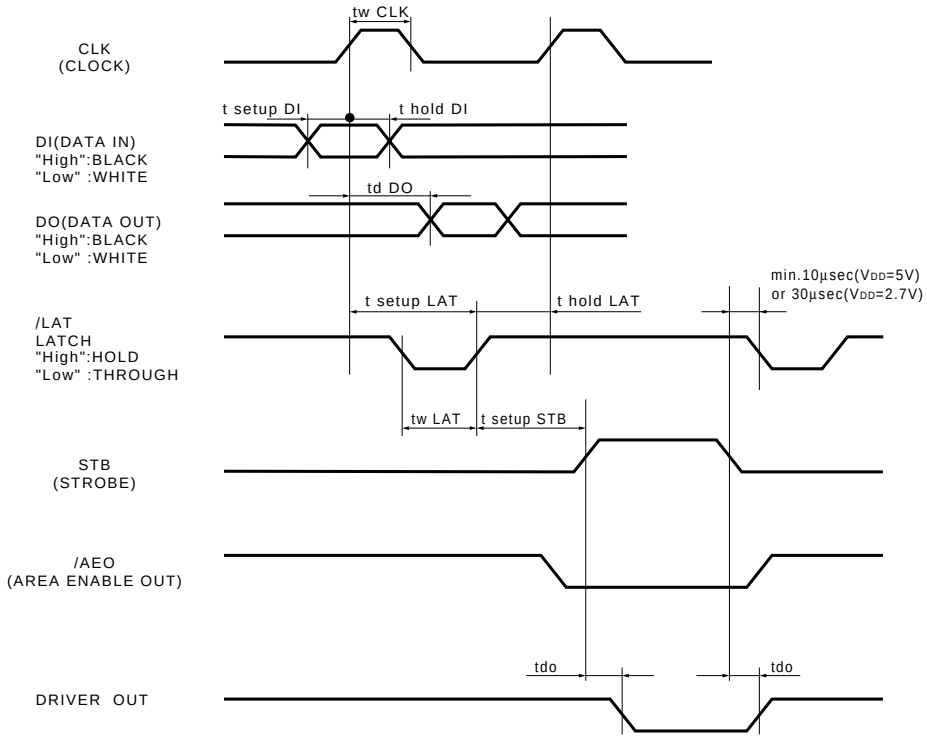


Fig.2

●**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	–	ϕ14.0	mm
Running life / pulse life	–	$66/1\times10^8$	km/pulses
Operating temperature	–	0~50	°C

●**Electrical characteristic curves**

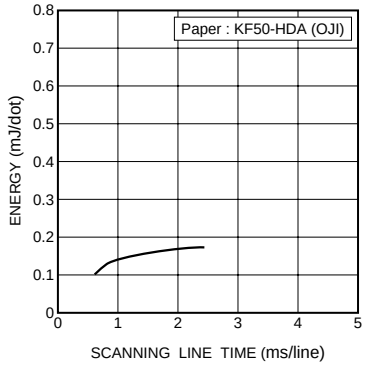


Fig.3 Adaptive speed chart

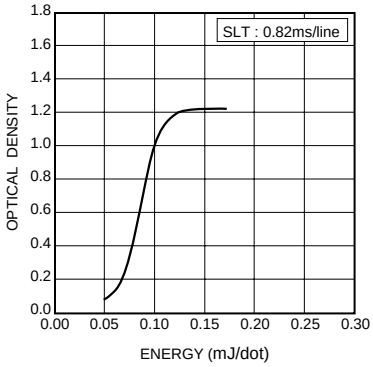


Fig.4 Representative density curve

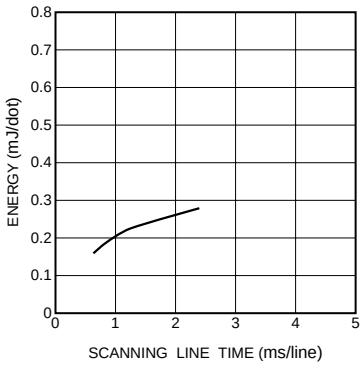


Fig.5 Maximum energy curve

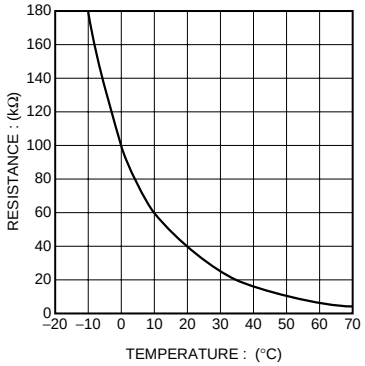


Fig.6 Thermistor curve

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