Compact low voltage thick film thermal printhead (6dots / mm)

KF1502-GT20A

These compact, lightweight printheads have low power requirements and are intended for ECR and mobile applications. Drawing 7.2V, a maximum print speed of 2 inches per second is possible.

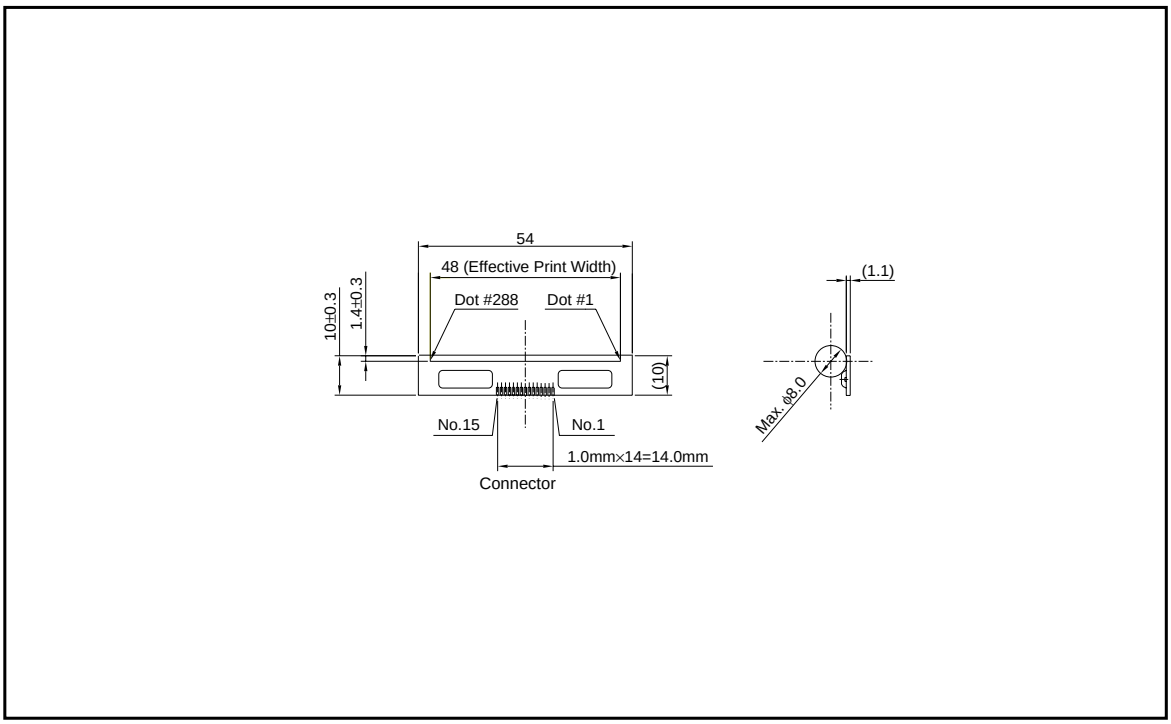
●Applications

ECR printers
Hand-held printers

●Features

1) A wide range of power supply voltage, from 4.2V-8.5V, can be used to drive the printhead. This gives the flexibility for use with printers designed to operate with power from various battery configurations.
2) To allow the design of compact printers for use in calculators and other mobile applications, the basic specifications of the unit have been standardized. This gives engineers greater freedom to develop mechanical designs.
3) One rank resistance value of 210Ω ± 4% eliminates the inconvenience of rank selection.

●External dimensions (Unit : mm)



●**Equivalent circuit**

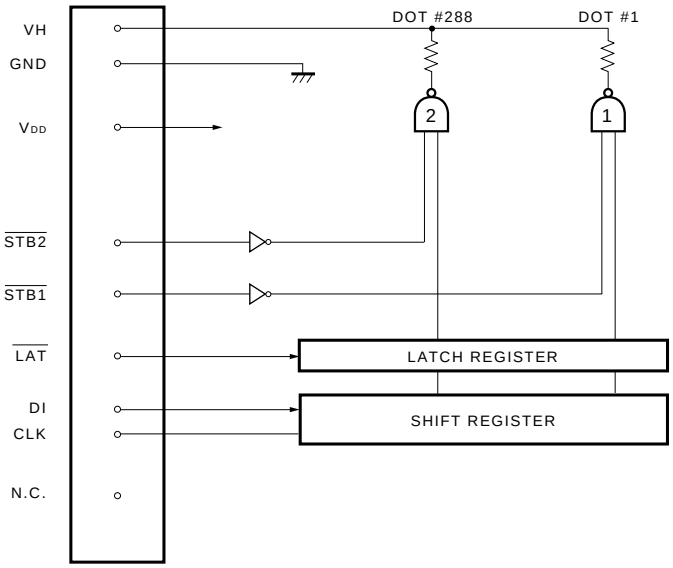


Fig.1

●**Pin assignments**

No.	Circuit
1	VH
2	VH
3	$\overline{LAT}$
4	N.C.
5	GND
6	GND
7	$\overline{STB1}$
8	V_{DD}
9	$\overline{STB2}$
10	GND
11	GND
12	CLK
13	DI
14	VH
15	VH

●**Timing chart**

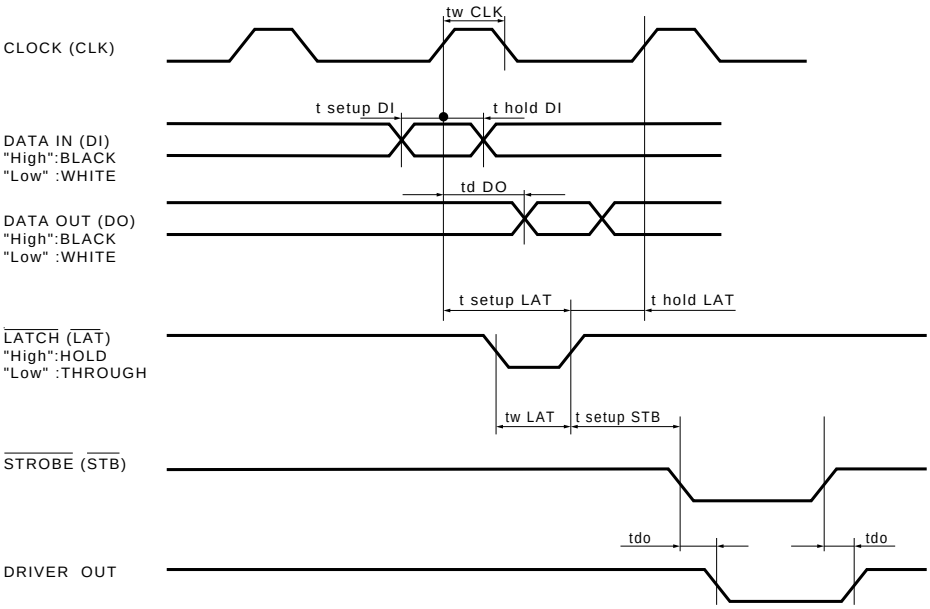


Fig.2

●**Characteristics**

Parameter	Symbol	Typical	Unit
Effective printing width	–	48.096	mm
Dot pitch	–	0.167	mm
Total dot number	–	288	dots
Average resistance value	Rave	210	Ω
Applied voltage	V_H	7.2	V
Applied power	P_O	0.14	W/dot
Print cycle	SLT	2.5	ms
Pulse width	T_{ON}	1.68	ms
Maximum number of dots energized simultaneously	–	144	dots
Maximum clock frequency	–	4	MHz
Maximum roller diameter	–	ϕ8.0	mm
Running life / pulse life	–	$30/5\times10^7$	km/pulses
Operating temperature	–	5 to 45	°C

●**Electrical characteristic curves**

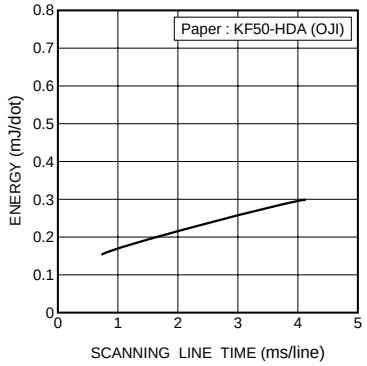


Fig.3 Adaptive speed chart

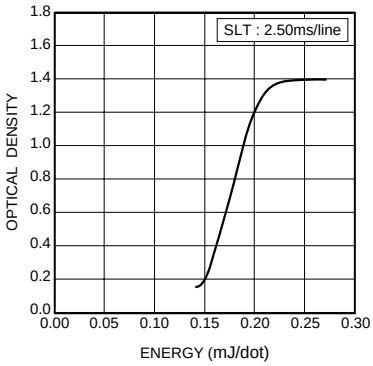


Fig.4 Representative density curve

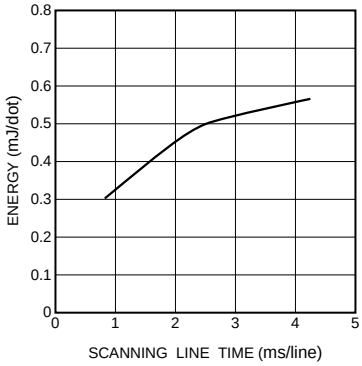


Fig.5 Maximum energy curve

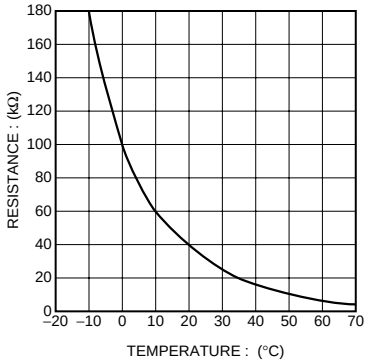


Fig.6 Thermistor curve

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