Thick film thermal printhead (with thermal historical control)

KF2002-GM50A

GM50 series is the new product that newly added the future history control and driver LSI which has the function of thermal historical control, to GL50 series which is employing the convertional thick-film fast response thermal element.

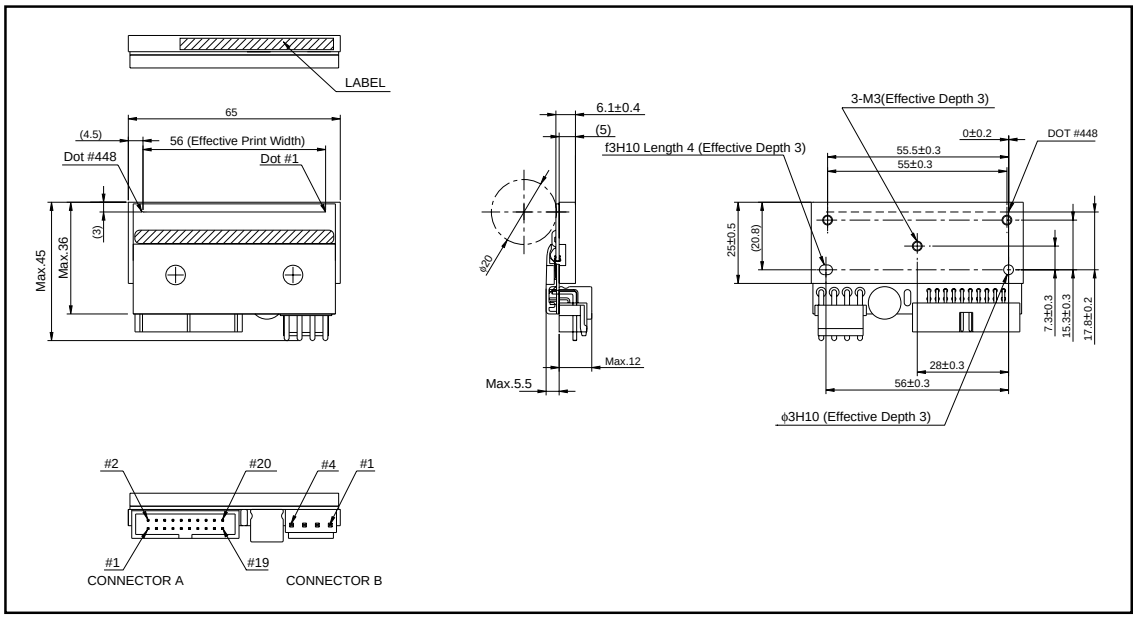
●Applications

High speed label printer
High speed bar code printer
High speed ticket printer
Various high speed terminal printers

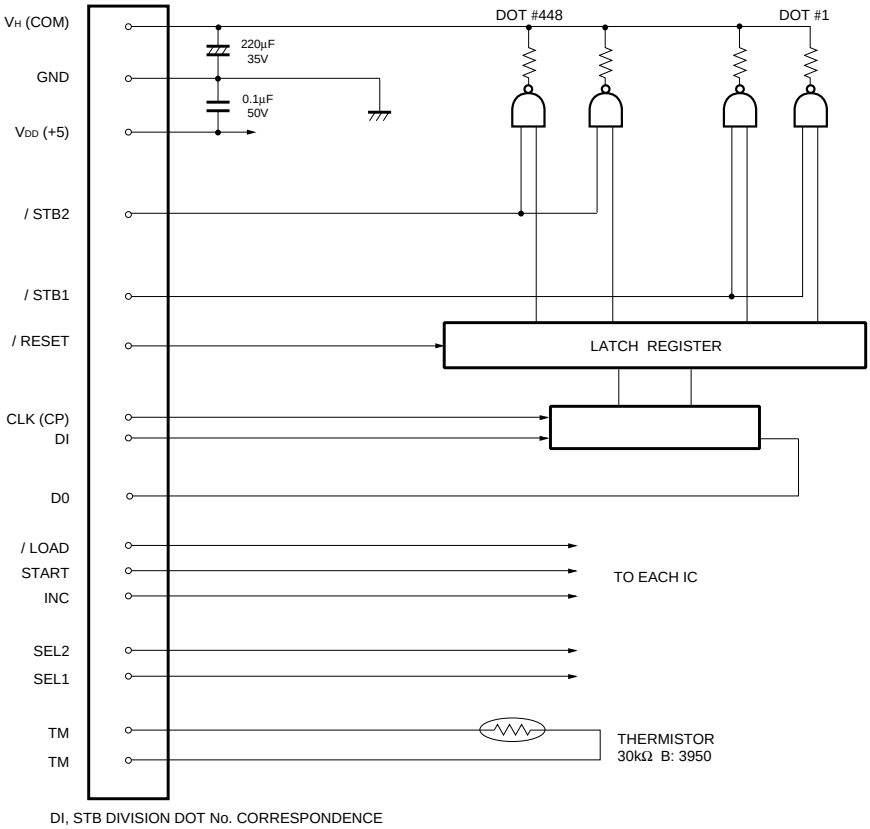
●Features

1) Newly developed thick-film fast response thermal element and driver LSI with the function of thermal history control which is added the future history control are employed for this series. It is possible to print with super high speed of 10 inches / s or 250mm / s.
2) 150km life realized by attributing durable new protection film.
3) New partial glaze construction makes it compatible with the thermal transfer application.
4) Market-proven G-series printhead construction ensures high reliability.

●External dimensions (Units : mm)



●**Equivalent circuit**



DI, STB DIVISION DOT No. CORRESPONDENCE

DI No.	DOT No.
DI	448 ~ 1

/ STB No.	DOT No.
/ STB2	448 ~ 193
/ STB1	192 ~ 1

●**Pin assignments**

CONNECTOR A

No.	Circuit	No.	Circuit
1	VDD	11	/ RESET
2	VDD	12	START
3	SEL2	13	DO
4	SEL1	14	NC
5	CLK (CP)	15	TM
6	NC	16	TM
7	DI	17	/ STB 2
8	NC	18	/ STB 1
9	INC	19	NC
10	/ LOAD	20	NC

CONNECTOR B

No.	Circuit
1	VH (COM)
2	VH (COM)
3	GND
4	GND

●Characteristics

Parameter	Symbol	Typical	Unit
Effective printing width	–	56	mm
Dot pitch	–	0.125	mm
Total dot number	–	448	dots
Average resistance value	Rave	550	Ω
Applied voltage	V_H	24	V
Applied power	P_O	0.929	W/dot
Print cycle	SLT	0.490	ms
Pulse width	T_{ON}	0.238	ms
Maximum number of dots energized simultaneously	–	448	dots
Maximum clock frequency	–	8	MHz
Maximum roller diameter	–	ϕ20.0	mm
Running life / pulse life	–	$150/(1\times10^8)$	km/pulses
Operating temperature	–	5~45	°C

●Data sheets

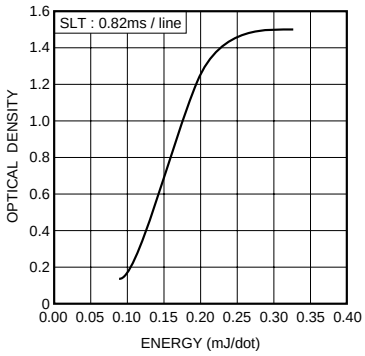


Fig.2 Representative density curve

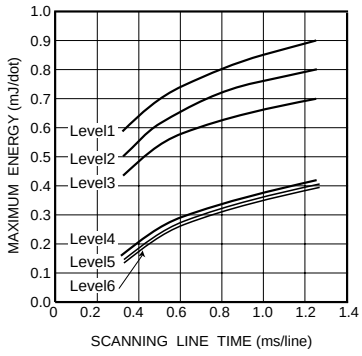


Fig.3 Maximum energy curve

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