Thick film thermal printhead (with thermal historical control)

KF3003-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 conventional thick-film fast response thermal element.

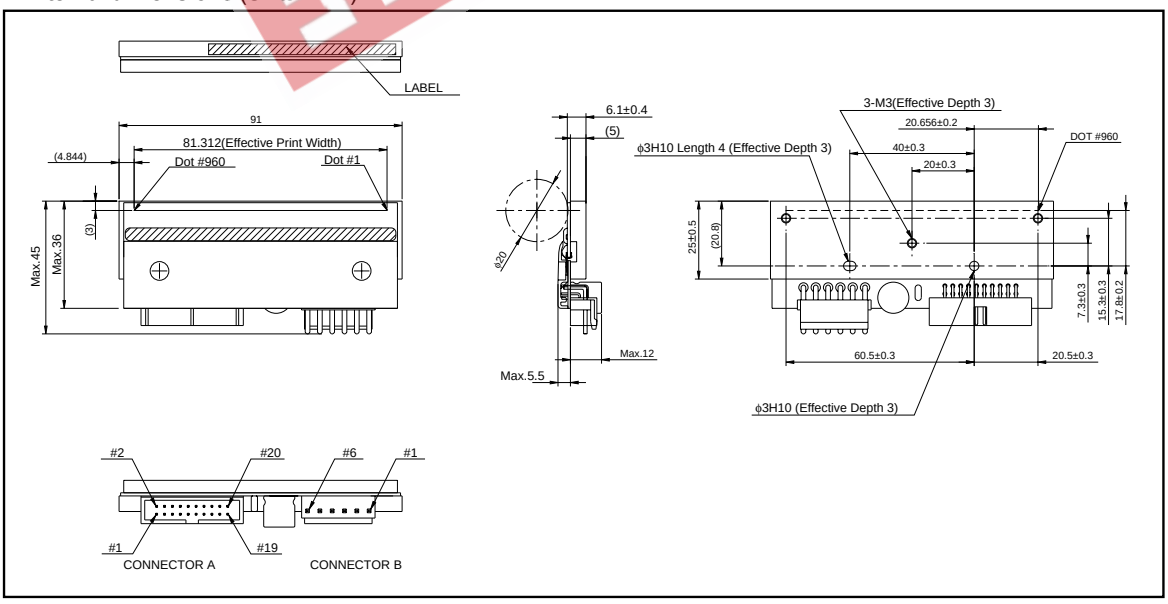
●Applications

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

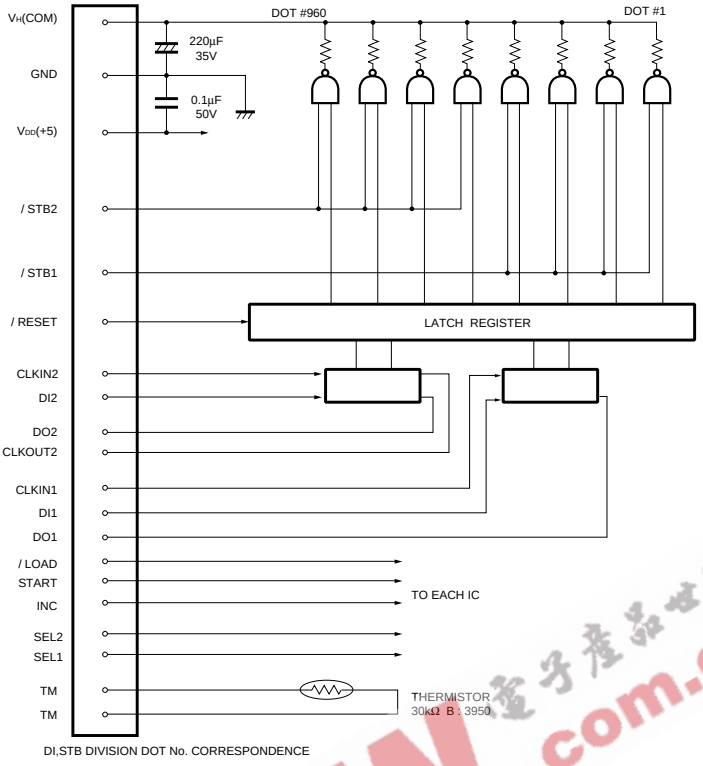
●Features

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 250 mm / 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 No.	DOT No.
DI2	960~513
DI1	512~ 1

/ STB No.	DOT No.
/ STB2	960~513
/ STB1	512~ 1

CLK No.	DOT No.
CLKIN2	960~513
CLKIN1	512~ 1

Fig.1

●Pin assignments

CONNECTOR A

No.	Circuit	No.	Circuit
1	VDD	11	/ RESET
2	VDD	12	START
3	SEL2	13	DO1
4	SEL1	14	DO2
5	CLKIN2 (CP)	15	TM
6	NC	16	TM
7	DI2	17	/ STB2
8	DI1	18	/ STB1
9	INC	19	CLKOUT2
10	/ LOAD	20	CLKIN1

CONNECTOR B

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

●Characteristics

Parameter	Symbol	Typical	Unit
Effective printing width	–	81.312	mm
Dot pitch	–	0.0847	mm
Total dot number	–	960	dots
Average resistance value	Rave	1250	Ω
Applied voltage	V_H	24	V
Applied power	P_O	0.423	W/dot
Print cycle	SLT	0.41	ms
Pulse width	T_{ON}	0.25	ms
Maximum number of dots energized simultaneously	–	960	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

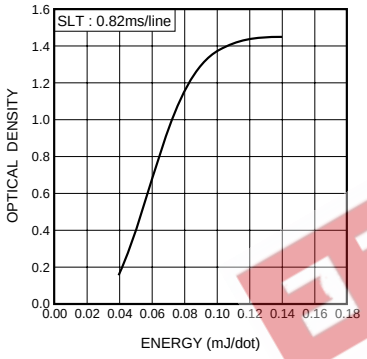


Fig.2 Representative density curve

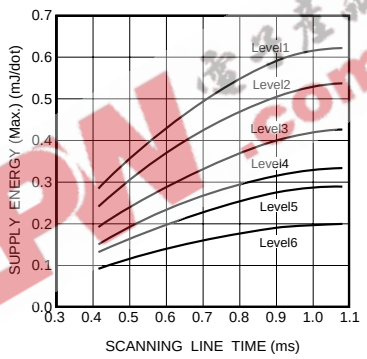


Fig.3 Maximum energy curve

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