

# Thick film thermal printhead

## KF3006-GL50A

The new high speed thick-film G-series (direct mount clip-pin interconnect) with the fast response anti-ESD thermal element and durable new protection film.

### ●Applications

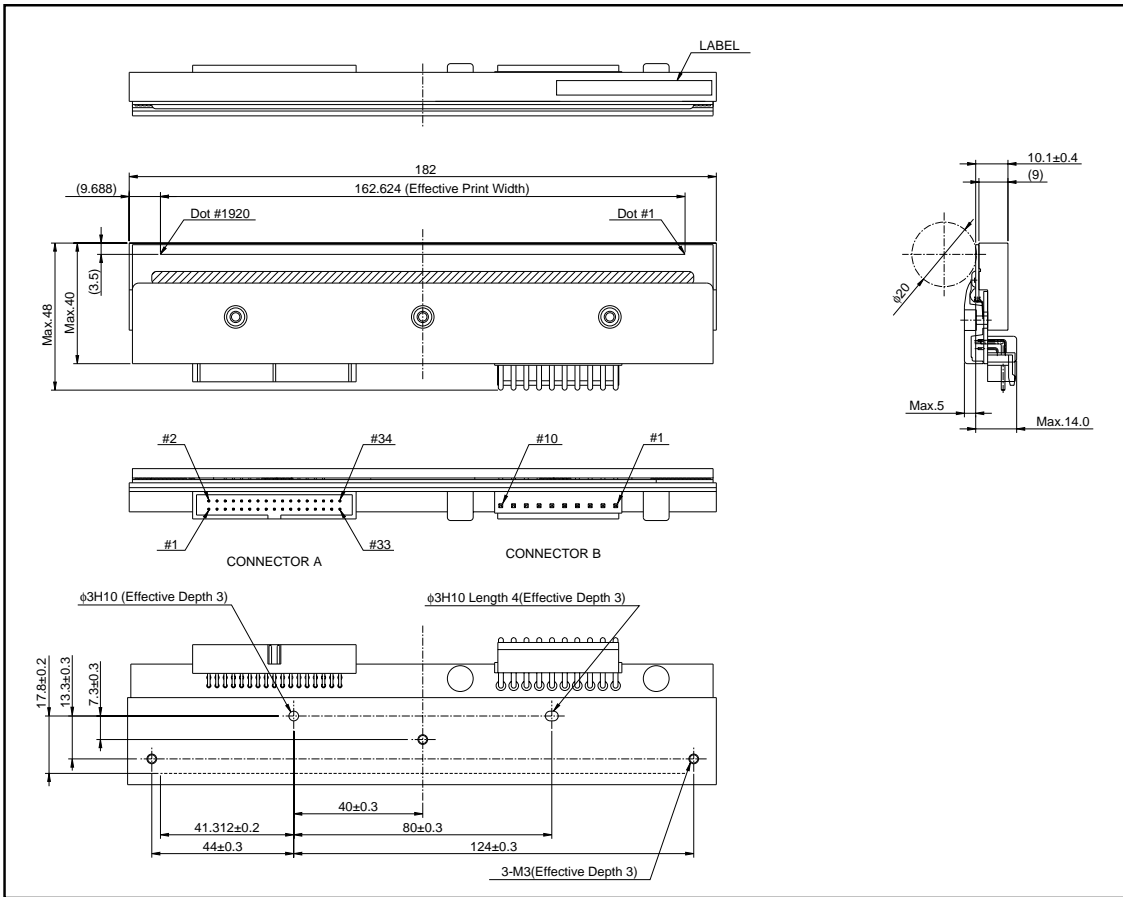
High speed label printer  
High speed bar code printer  
High speed ticket printer  
Various high speed terminal printers

### ●Features

- 1) Newly developed thick-film fast response thermal element is employed for this series and 6 inches/s or 150 mm/s is possible without thermal history control. It is possible to print 10 inches/s or 250 mm/s if external thermal history control is used.
- 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.

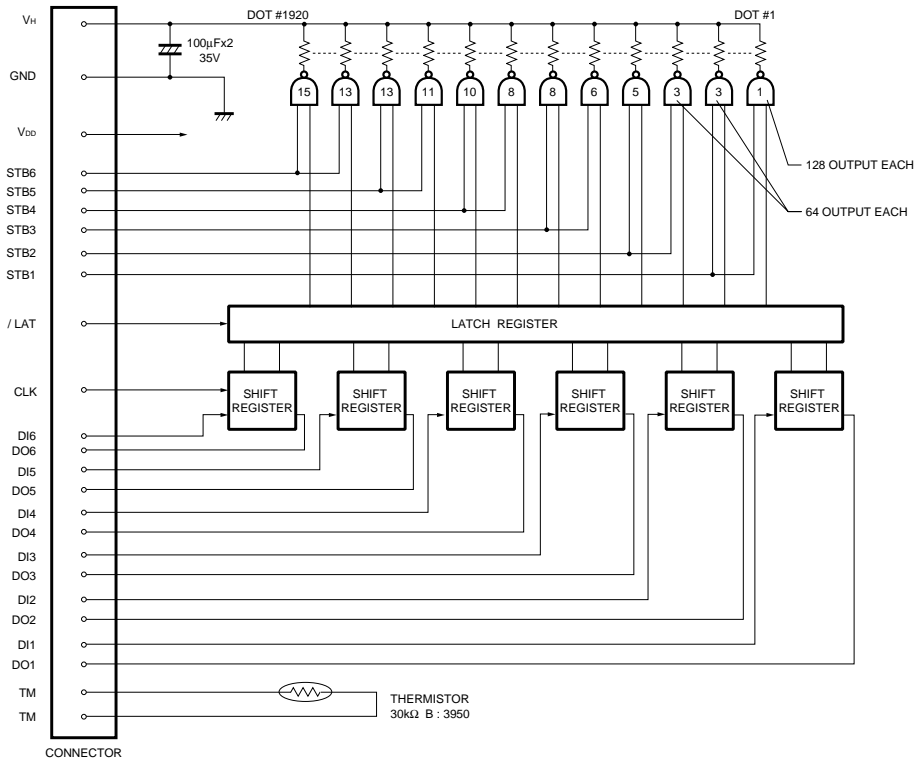
Printhead

●External dimensions (Units : mm)



Printhead

●Equivalent circuit



DI No.	DOT No.
DI1	1~320
DI2	321~640
DI3	641~960
DI4	961~1280
DI5	1281~1600
DI6	1601~1920

STB No.	DOT No.
STB1	1~320
STB2	321~640
STB3	641~960
STB4	961~1280
STB5	1281~1600
STB6	1601~1920

Fig.1

## Printhead

---

### ●Pin assignments

CONNECTOR A				CONNECTOR B	
No.	Circuit	No.	Circuit	No.	Circuit
1	GND	18	STB6	1	V <sub>H</sub>
2	V <sub>DD</sub>	19	CLK	2	V <sub>H</sub>
3	GND	20	/ LAT	3	V <sub>H</sub>
4	V <sub>DD</sub>	21	TM	4	V <sub>H</sub>
5	NC	22	TM	5	V <sub>H</sub>
6	NC	23	STB3	6	GND
7	NC	24	STB4	7	GND
8	NC	25	STB1	8	GND
9	NC	26	STB2	9	GND
10	NC	27	DI4	10	GND
11	DI6	28	DO4		
12	DO6	29	DI3		
13	DI5	30	DO3		
14	DO5	31	DI2		
15	NC	32	DO2		
16	NC	33	DI1		
17	STB5	34	DO1		

### ●Characteristics

Parameter	Symbol	Typical	Unit
Effective printing width	–	162.624	mm
Dot pitch	–	0.0847	mm
Total dot number	–	1920	dots
Average resistance value	R <sub>ave</sub>	1250	Ω
Applied voltage	V <sub>H</sub>	24	V
Applied power	P <sub>o</sub>	0.49	W/dot
Print cycle	SLT	0.83	ms
Pulse width	T <sub>ON</sub>	0.32	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/(1×10 <sup>8</sup> )	km/pulses
Operating temperature	–	5~45	°C

Printhead

●Data sheets

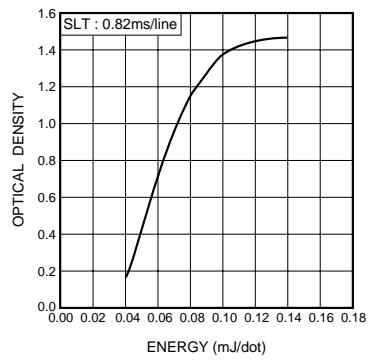


Fig.2 Representative density curve

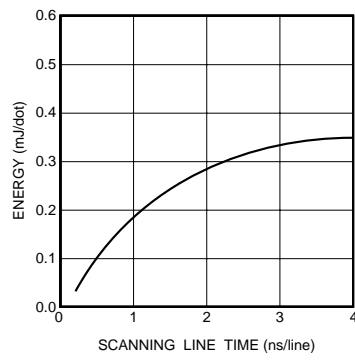


Fig.3 Maximum energy curve

### Notes

- No technical content pages of this document may be reproduced in any form or transmitted by any means without prior permission of ROHM CO.,LTD.
- The contents described herein are subject to change without notice. The specifications for the product described in this document are for reference only. Upon actual use, therefore, please request that specifications to be separately delivered.
- Application circuit diagrams and circuit constants contained herein are shown as examples of standard use and operation. Please pay careful attention to the peripheral conditions when designing circuits and deciding upon circuit constants in the set.
- Any data, including, but not limited to application circuit diagrams information, described herein are intended only as illustrations of such devices and not as the specifications for such devices. ROHM CO.,LTD. disclaims any warranty that any use of such devices shall be free from infringement of any third party's intellectual property rights or other proprietary rights, and further, assumes no liability of whatsoever nature in the event of any such infringement, or arising from or connected with or related to the use of such devices.
- Upon the sale of any such devices, other than for buyer's right to use such devices itself, resell or otherwise dispose of the same, no express or implied right or license to practice or commercially exploit any intellectual property rights or other proprietary rights owned or controlled by
- ROHM CO., LTD. is granted to any such buyer.
- Products listed in this document use silicon as a basic material.  
Products listed in this document are no antiradiation design.

The products listed in this document are designed to be used with ordinary electronic equipment or devices (such as audio visual equipment, office-automation equipment, communications devices, electrical appliances and electronic toys).

Should you intend to use these products with equipment or devices which require an extremely high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), please be sure to consult with our sales representative in advance.

#### About Export Control Order in Japan

Products described herein are the objects of controlled goods in Annex 1 (Item 16) of Export Trade Control Order in Japan.

In case of export from Japan, please confirm if it applies to "objective" criteria or an "informed" (by MITI clause) on the basis of "catch all controls for Non-Proliferation of Weapons of Mass Destruction.