

# Thick film thermal printhead (with thermal historical control)

## KD3002-DC72A

DC72 series has our own internally developed heat-history control function.

This product is best suited for applications which require 24 hours operation like factory production lines.

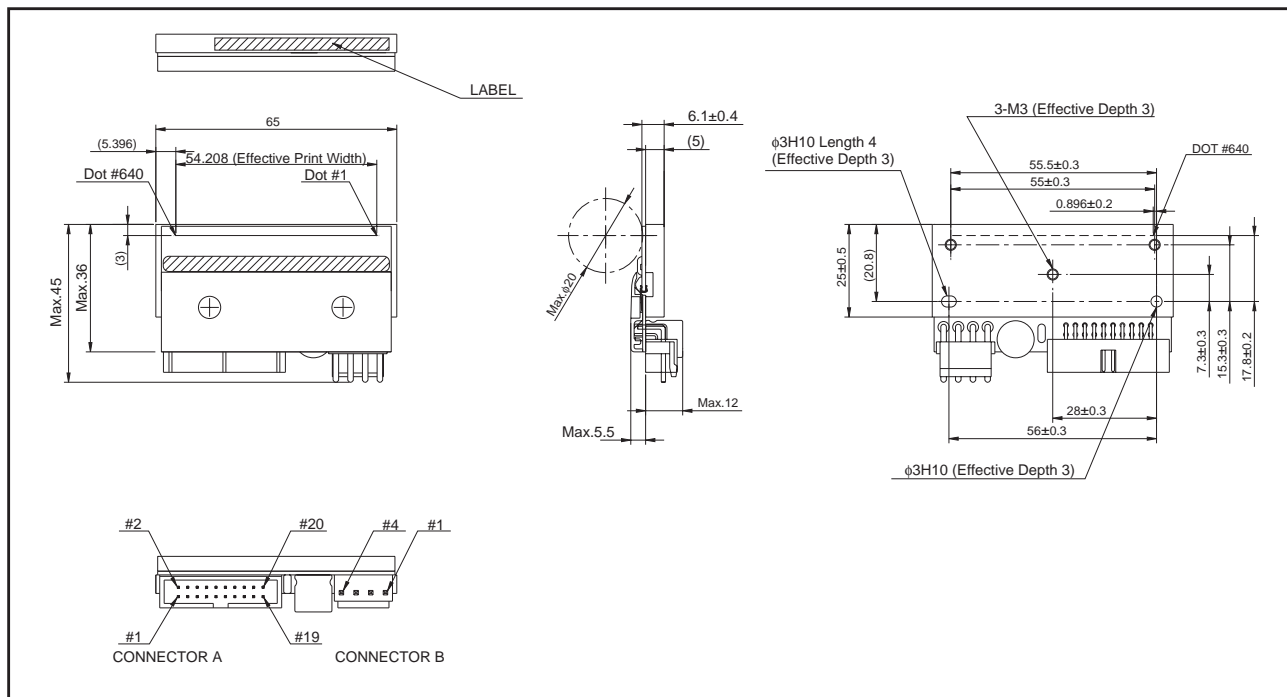
### ●Applications

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

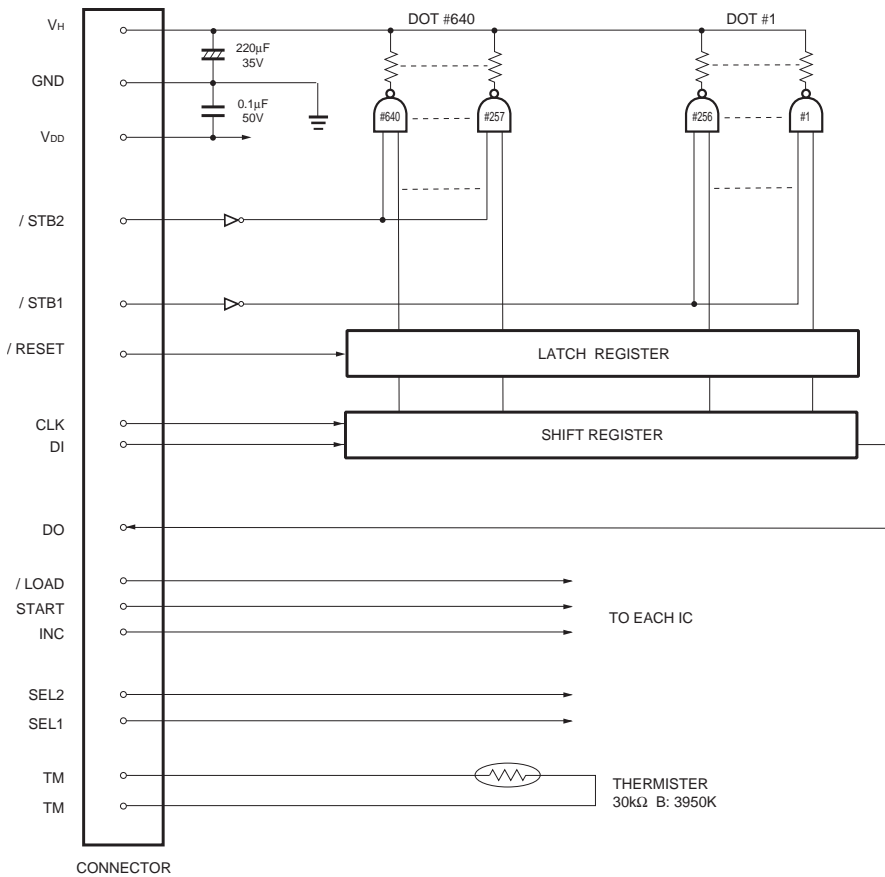
### ●Features

- 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.

### ●Dimensions (Unit : mm)



●Equivalent circuit



DI No.	DOT No.
DI	640 to 1

/ STB No.	DOT No.
/ STB2	640 to 257
/ STB1	256 to 1

●Pin assignments

CONNECTOR A			
No.	Circuit	No.	Circuit
1	V <sub>DD</sub>	11	/ RESET
2	V <sub>DD</sub>	12	START
3	SEL2	13	DO
4	SEL1	14	NC
5	CLK (CP)	15	TM
6	NC	16	TM
7	DI	17	/ STB2
8	NC	18	/ STB1
9	INC	19	NC
10	/ LOAD	20	NC

CONNECTOR B	
No.	Circuit
1	V <sub>H</sub> (COM)
2	V <sub>H</sub> (COM)
3	GND
4	GND

●Characteristics

Parameter	Symbol	Typical	Unit
Effective printing width	–	54.208	mm
Dot pitch	–	0.0847	mm
Total dot number	–	640	dots
Average resistance value	Rave	1250	Ω
Applied voltage	V <sub>H</sub>	24	V
Applied power	P <sub>o</sub>	0.55	W/dot
Print cycle	SLT	0.41	ms
Maximum number of dots energized simultaneously	–	640	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 to 45	°C

●Data sheets

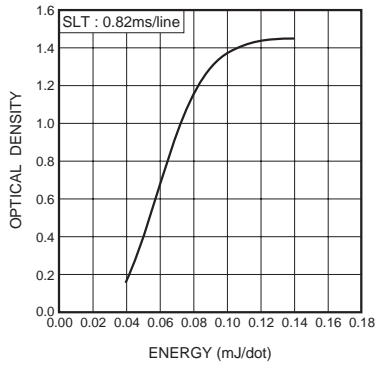


Fig.2 Representative density curve

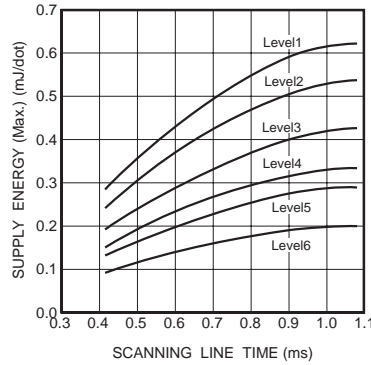


Fig.3 Maximum energy curve

### Notes

No copying or reproduction of this document, in part or in whole, is permitted without the consent of ROHM CO.,LTD.

The content specified herein is subject to change for improvement without notice.

The content specified herein is for the purpose of introducing ROHM's products (hereinafter "Products"). If you wish to use any such Product, please be sure to refer to the specifications, which can be obtained from ROHM upon request.

Examples of application circuits, circuit constants and any other information contained herein illustrate the standard usage and operations of the Products. The peripheral conditions must be taken into account when designing circuits for mass production.

Great care was taken in ensuring the accuracy of the information specified in this document. However, should you incur any damage arising from any inaccuracy or misprint of such information, ROHM shall bear no responsibility for such damage.

The technical information specified herein is intended only to show the typical functions of and examples of application circuits for the Products. ROHM does not grant you, explicitly or implicitly, any license to use or exercise intellectual property or other rights held by ROHM and other parties. ROHM shall bear no responsibility whatsoever for any dispute arising from the use of such technical information.

The Products specified in this document are intended to be used with general-use electronic equipment or devices (such as audio visual equipment, office-automation equipment, communication devices, electronic appliances and amusement devices).

The Products are not designed to be radiation tolerant.

While ROHM always makes efforts to enhance the quality and reliability of its Products, a Product may fail or malfunction for a variety of reasons.

Please be sure to implement in your equipment using the Products safety measures to guard against the possibility of physical injury, fire or any other damage caused in the event of the failure of any Product, such as derating, redundancy, fire control and fail-safe designs. ROHM shall bear no responsibility whatsoever for your use of any Product outside of the prescribed scope or not in accordance with the instruction manual.

The Products are not designed or manufactured to be used with any equipment, device or system which requires an extremely high level of reliability the failure or malfunction of which may result in a direct threat to human life or create a risk of human injury (such as a medical instrument, transportation equipment, aerospace machinery, nuclear-reactor controller, fuel-controller or other safety device). ROHM shall bear no responsibility in any way for use of any of the Products for the above special purposes. If a Product is intended to be used for any such special purpose, please contact a ROHM sales representative before purchasing.

If you intend to export or ship overseas any Product or technology specified herein that may be controlled under the Foreign Exchange and the Foreign Trade Law, you will be required to obtain a license or permit under the Law.

Thank you for your accessing to ROHM product informations.

More detail product informations and catalogs are available, please contact your nearest sales office.

**ROHM Customer Support System**

**THE AMERICAS / EUROPE / ASIA / JAPAN**

[www.rohm.com](http://www.rohm.com)

Contact us : [webmaster@rohm.co.jp](mailto:webmaster@rohm.co.jp)