Compact medium speed thick film thermal printhead (8dots / mm)

KF2003-GR40A

The KF2003-GR40A is ideal for applications that require compact, lightweight thermal printheads, such as POS and label printer applications. The 2-, 3-, and 4-inch sizes have a resolution of 203dpi. This series is suitable for a wide range of applications.

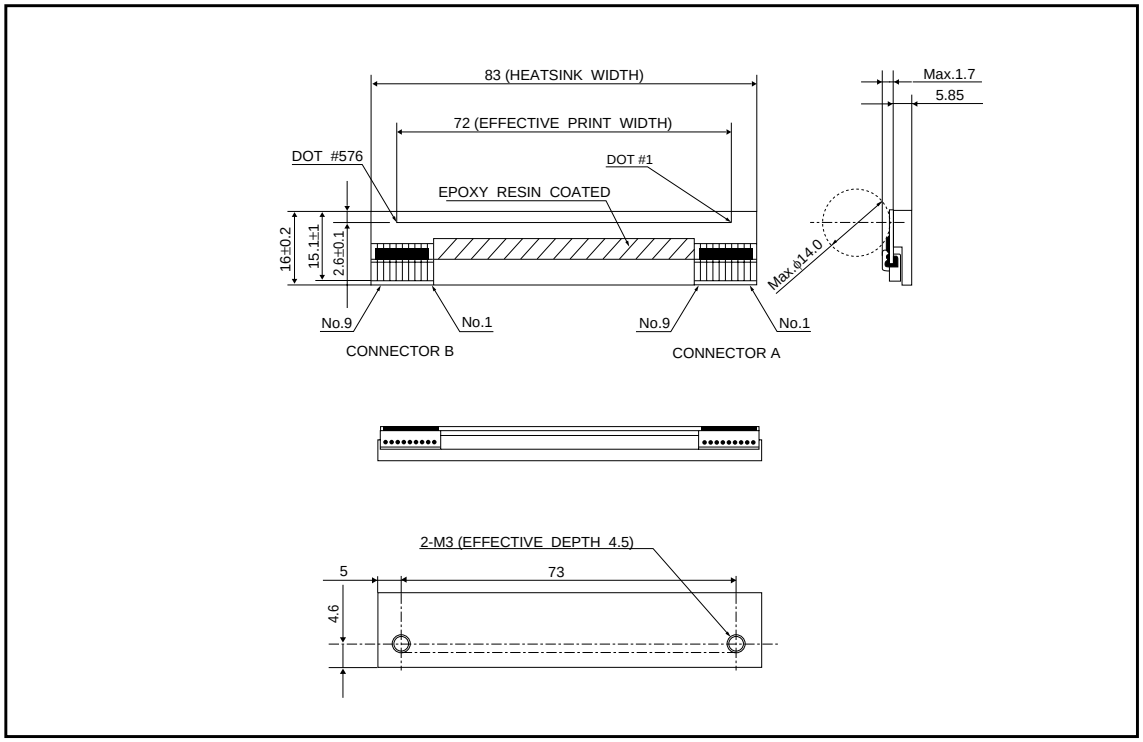
●Applications

POS printers
Label printers
Receipt printers
General purpose compact printers

●Features

1) Both ROHM's advanced LSI technology and proprietary partial glaze are used to realize higher printing efficiency. With a high print speed of 100mm/s, this series is also suitable for thermal transfer printing.
2) Besides the fact that harness-type direct connectors at either end allow wring to be fitted as convenient, the thermal printheads can be applied directly to the substrate without a heat sink. Both these features give engineers greater freedom when designing the printer mechanism.
3) One rank resistance value of 800Ω ± 3% eliminates the inconvenience of rank selection.

●External dimensions (Units : mm)



●**Equivalent circuit**

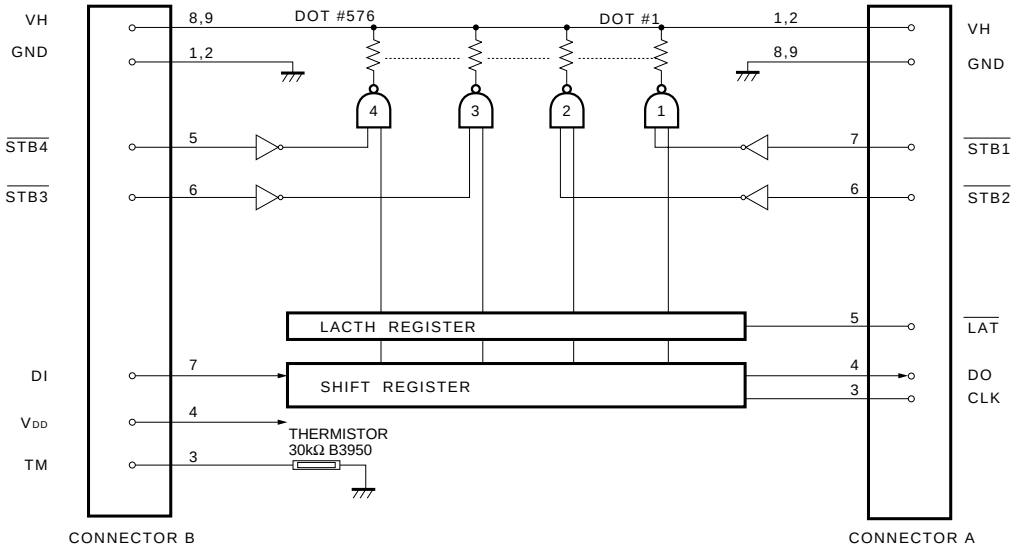


Fig.1

●**Pin assignments**

CONNECTOR B

No.	Circuit
1	GND
2	GND
3	TM
4	V_{DD}
5	$\overline{STB4}$
6	$\overline{STB3}$
7	DI
8	VH
9	VH

CONNECTOR A

No.	Circuit
1	VH
2	VH
3	DO
4	CLK
5	$\overline{LAT}$
6	$\overline{STB2}$
7	$\overline{STB1}$
8	GND
9	GND

●**Timing chart**

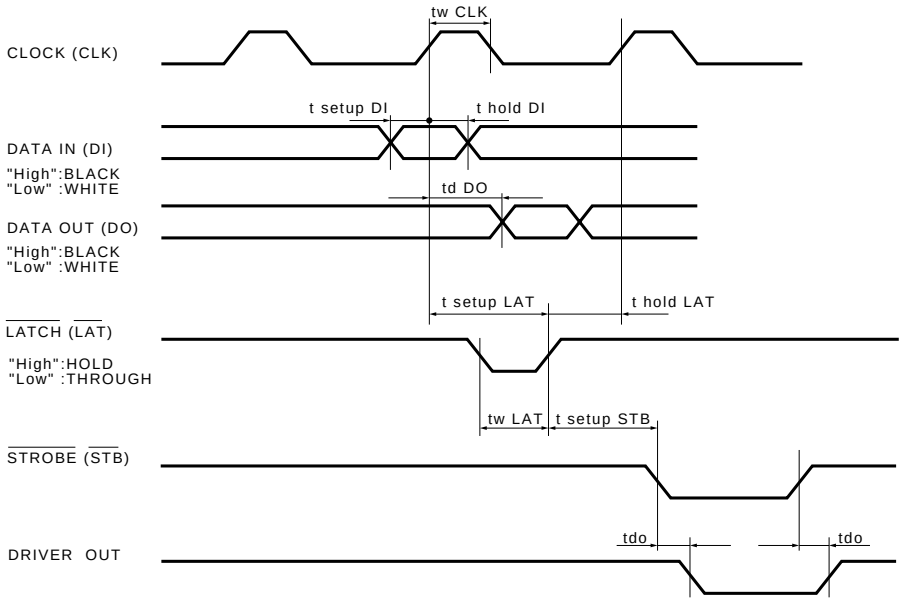


Fig.2

●**Characteristics**

Parameter	Symbol	Typical	Unit
Effective printing width	–	72.0	mm
Dot pitch	–	0.125	mm
Total dot number	–	576	dots
Average resistance value	Rave	800	Ω
Applied voltage	V_H	24.0	V
Applied power	P_O	0.64	W/dot
Print cycle	SLT	1.25	ms
Pulse width	T_{ON}	0.28	ms
Maximum number of dots energized simultaneously	–	288	dots
Maximum clock frequency	–	4	MHz
Maximum roller diameter	–	ϕ14.0	mm
Running life / pulse life	–	$50/5\times10^7$	km/pulses
Operating temperature	–	5~45	°C

●**Electrical characteristic curves**

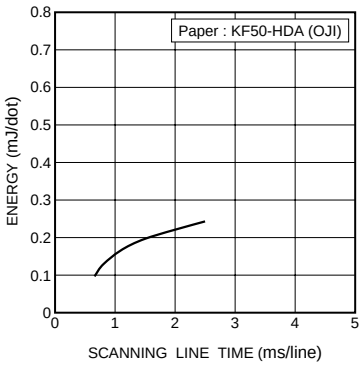


Fig.3 Adaptive speed chart

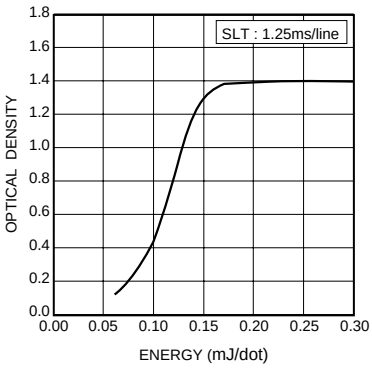


Fig.4 Representative density curve

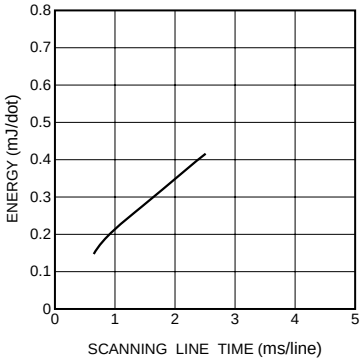


Fig.5 Maximum energy curve

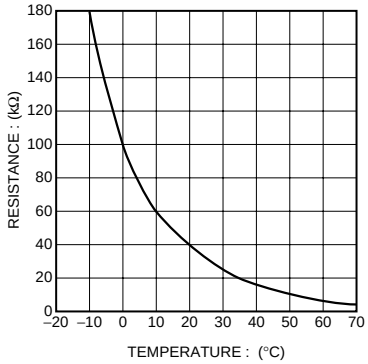


Fig.6 Thermistor curve

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