

Compact low voltage thick film thermal printhead (8dots / mm)

KF2004-GF50A

A world first, ROHM offers the KF2004-GF50A of thermal printheads that allow operation using a single standard lithium ion battery: required voltage has been reduced to just 2.7V. Compact and lightweight they are ideal printheads for handheld printers and PDAs (personal digital assistants).

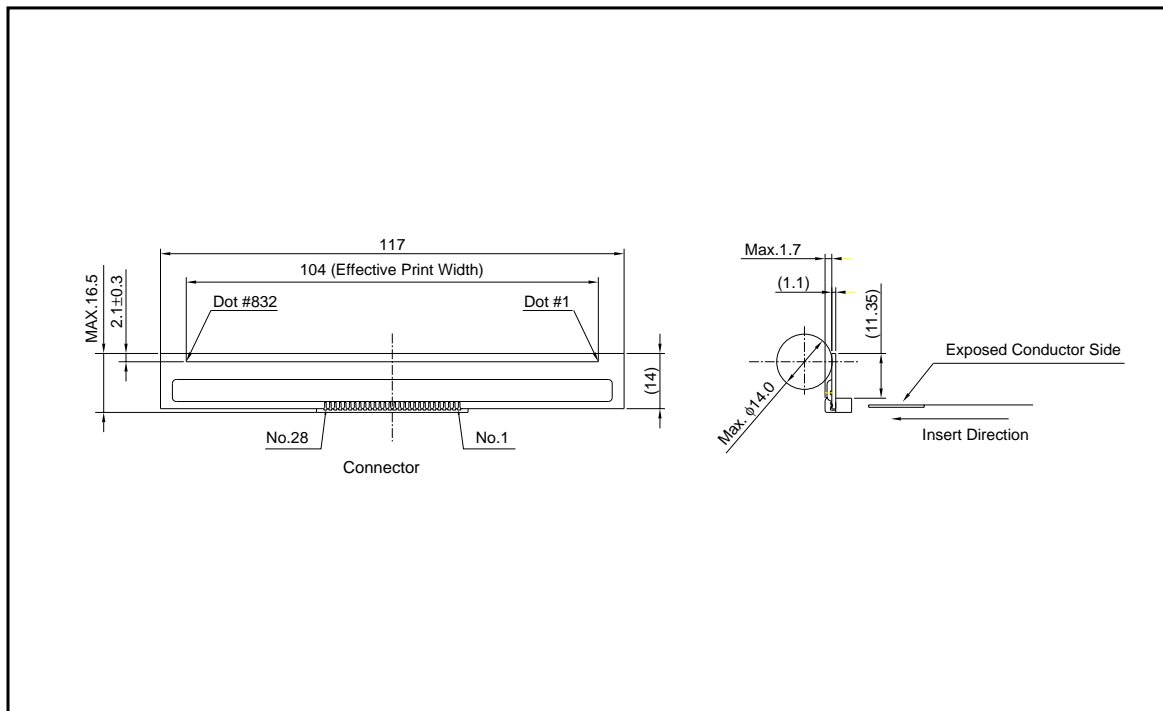
●Applications

Mobile printers
FET-POS printers
Hand-held printers
Debit printers

●Features

- 1) Using advanced LSI technology, ROHM has developed a dedicated low voltage driver chip. Compared with previous products, power consumption has been reduced by more than 30%. Because the print head circuits draw just 2.7 volts, the printer can be driven using a single lithium ion battery.
- 2) One rank resistance value of $123\Omega \pm 4\%$ eliminates the inconvenience of rank selection.
- 3) The GP10 series has a resistance value of 123Ω and can be used in devices designed to operate with a single 3V lithium ion battery.

●External dimensions (Units : mm)



Printheads

●Timing chart

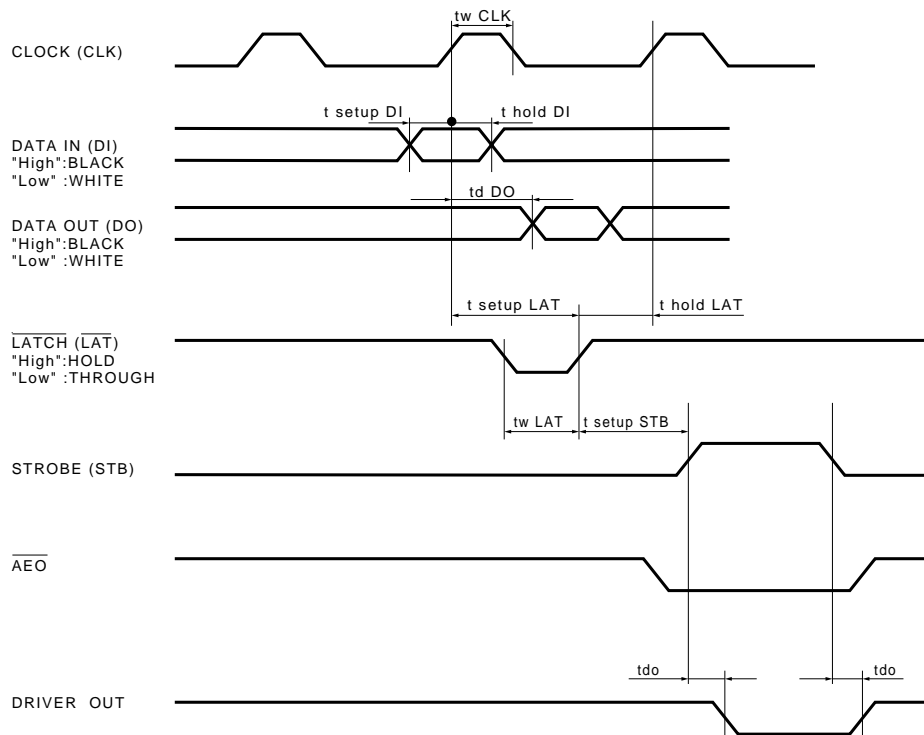


Fig.2

●Characteristics

Parameter	Symbol	Typical	Unit
Effective printing width	—	104	mm
Dot pitch	—	0.125	mm
Total dot number	—	832	dots
Average resistance value	Rave	123	Ω
Applied voltage	V_H	3.6	V
Applied power	P_o	0.07	W/dot
Print cycle	SLT	2.50	ms
Pulse width	T_{ON}	2.02	ms
Maximum number of dots energized simultaneously	—	64	dots
Maximum clock frequency	—	8	MHz
Maximum roller diameter	—	$\phi 14.0$	mm
Running life / pulse life	—	$50/1 \times 10^8$	km/pulses
Operating temperature	—	0–50	$^{\circ}\text{C}$

Printheads

● Electrical characteristic curves

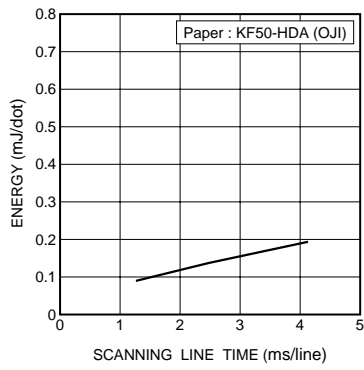


Fig.3 Adaptive speed chart

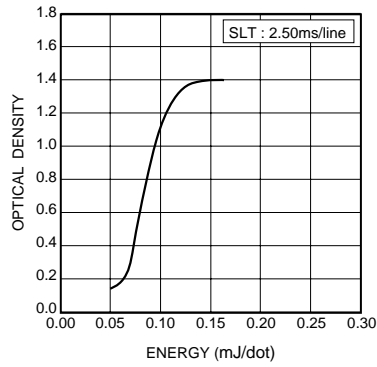


Fig.4 Representative density curve

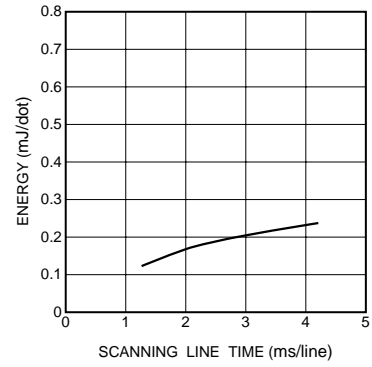


Fig.5 Maximum energy curve

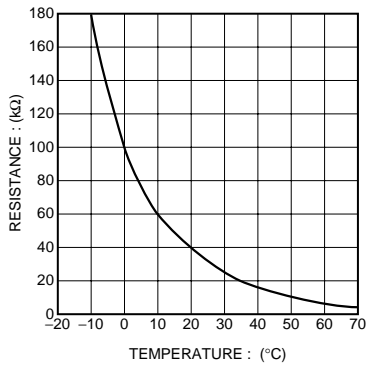


Fig.6 Thermistor curve