Hight Speed Thermal Printhead (8dots / mm)

SE2002-DC90A

High speed, high quality, and high durability are achieved by using step free structure with high performance partial glaze and highly conductive overcoat layer. SE200*-DC90A series are lined up which can accommodate with all types of barcode labeling printers from Direct to Thermal Transfer, normal to high speed (over 300mm/s).

Applications

Bar code label printers

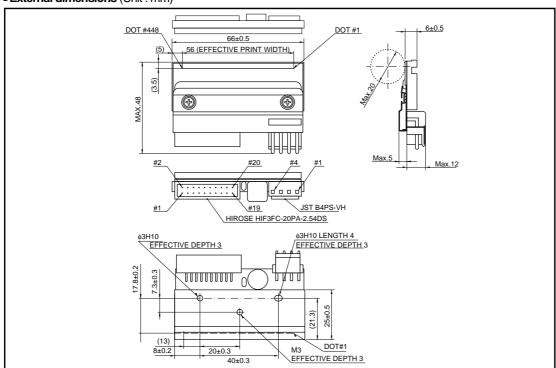
Ticket printers

General purpose compact printers

Features

- 1) ROHM new technology "STEP FREE" structure will provide, high corrosion resistance, better resistance against scratching damage, high efficiency.
- 2) Standard glazed components to accommodate thick paper.
- 3) High speed clock (10MHz) to facilitate external heat history control.
- 4) Using a hard conductive film as a protective film on the heating element offers excellent resistance to electrostatic damage.
- 5) Compatible with the SE3002-DC90A (300dpi) in mechanical specifications, to facilitate the making of a series of printers.

●External dimensions (Unit : mm)



Note: No heat history control function inside the thermal printhead. External heat history control is required for high speed printing.

●Equivalent circuit DOT #448 DOT #1 VH _ 220μF 35V GND BEO STB1 _ LA _ LATCH DI2 _ CLK _ V_{DD} 0.1μF 50V GND TM TM _

DI No.	DOT No.		
DI 2	448 to 193		
DI 1	192 to 1		

STB No.	DOT No.			
STB 2	448 to 193			
STB 1	192 to 1			

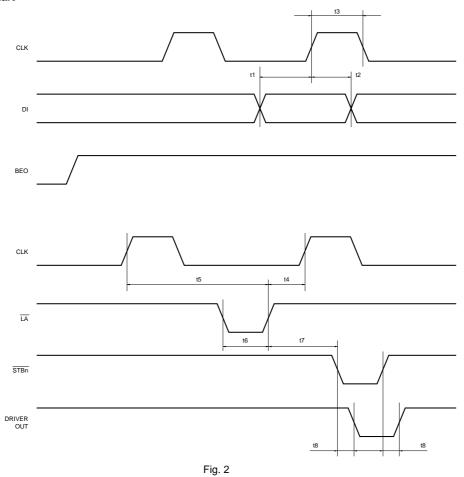
Fig. 1

●Pin configuration

HIROSE						
No.	Circuit	No.	Circuit			
1	V _{DD}	2	BEO			
3	GND	4	DI2			
5	N.C.	6	CLK			
7	LA	8	GND			
9	GND	10	DI1			
11	N.C.	12	GND			
13	V _{DD}	14	STB2			
15	STB1	16	TM			
17	TM	18	SENS1			
19	SENS2	20	SENS3			

Circuit
VH
VH
GND
GND

●Timing chart



Characteristics

Parameter	Symbol	Typical	Unit
Effective printing width	_	56	mm
Dot pitch	_	0.125	mm
Total dot number	_	448	dots
Average resistance value	Rave	550	Ω
Applied voltage	VH	24	V
Applied power	Po	0.923	W / dot
Print cycle	SLT	0.42	ms
Maximum number of dots energized simultaneously	_	448	dots
Maximum clock frequency	_	10	MHz
Maximum roller diameter	_	20	mm
Running life / pulse life	_	50 / 108	km / pulses
Operating temperature	_	5 to 45	°C

•Electrical characteristics curves

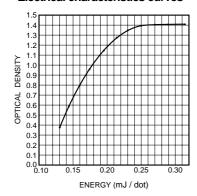


Fig. 3 Representative density curve

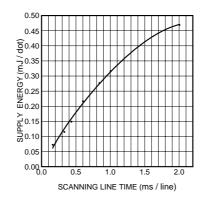


Fig. 4 Maximum energy curve

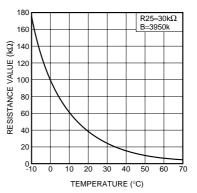


Fig. 5 Thermistor curve

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