

Monochrome image sensor heads for multi-function IA3008-MB30A

Using our highly efficient White Frame, ROHM's monochrome image sensor heads achieve even faster scanning times. 300 dpi compact monochrome image sensor head is available for high speed application such as laser printers.

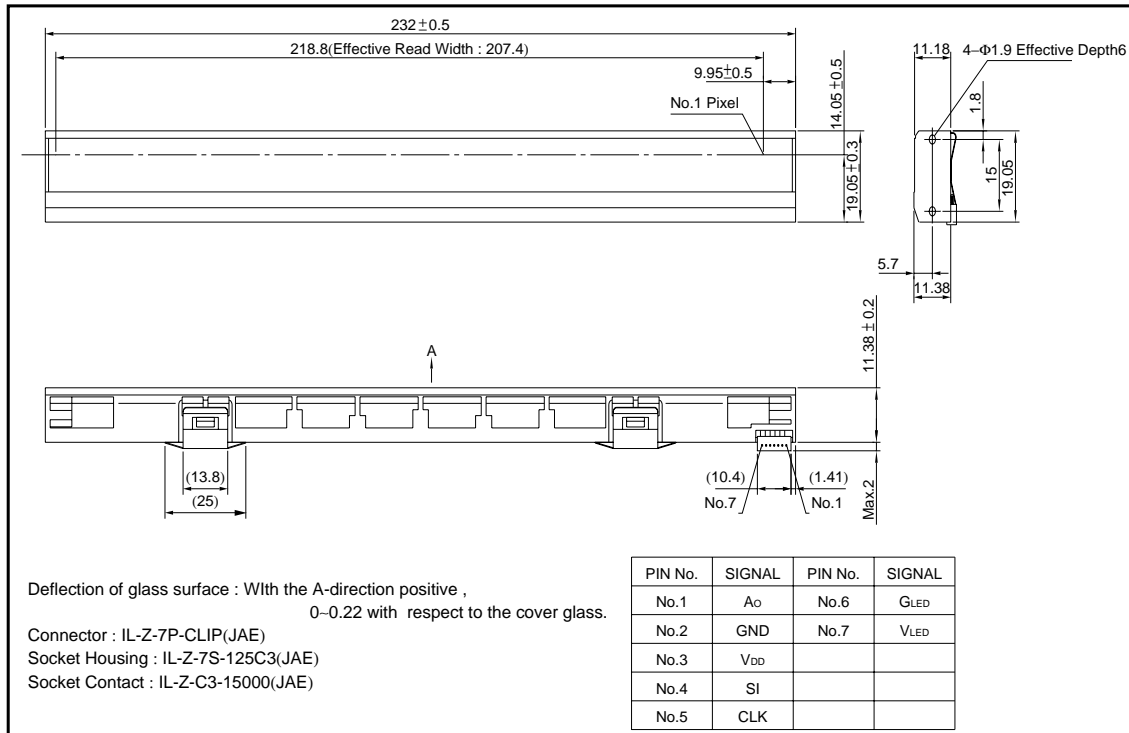
●Applications

Image input device for multiple function facsimiles such as scanner and multiple function printer.

●Features

- 1) Signal amplifier built in to the image sensor IC in order to increase immunity to external noise.
- 2) The LED light source is mounted on the same substrate as the sensor chip which makes it possible to package the device with lighter weight and an extremely small size.
- 3) 5 volts single power supply is needed for the CIS which will simplify the power supply requirement.
- 4) The ceramic substrate is used for excellent dimensional accuracy and thermal stability.
- 5) Using a special highly reflective frame that is achieved high speed scanning.

●External dimensions (Unit : mm)



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●Characteristics

Parameter	Symbol	Typ.	Unit
Effective scanning width	–	214	mm
Primary scan dot density	–	300	dpi
Total dot number	–	2584	dots
Power supply voltage	V _{DD}	5	V
Scanning speed	SLT	1.25	ms / line
Clock frequency	CLK	2.5	MHz
Maximum dynamic range	VRMax.	1.0	V
Minimum dynamic range	VRMin.	0.5	V
Dark output	V _{od}	1.0±0.3	V
Operating temperature	–	5 to 45	°C

●Pin assignments

No.	Circuit	I / O	Function
1	A _o	O	Analog output
2	GND	I	Ground
3	V _{DD}	I	Power supply
4	SI	I	Serial-in
5	CLK	I	Clock
6	G-LED	I	LED ground
7	V-LED	I	LED power supply

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●Timing chart

(a) CLK Timing Chart

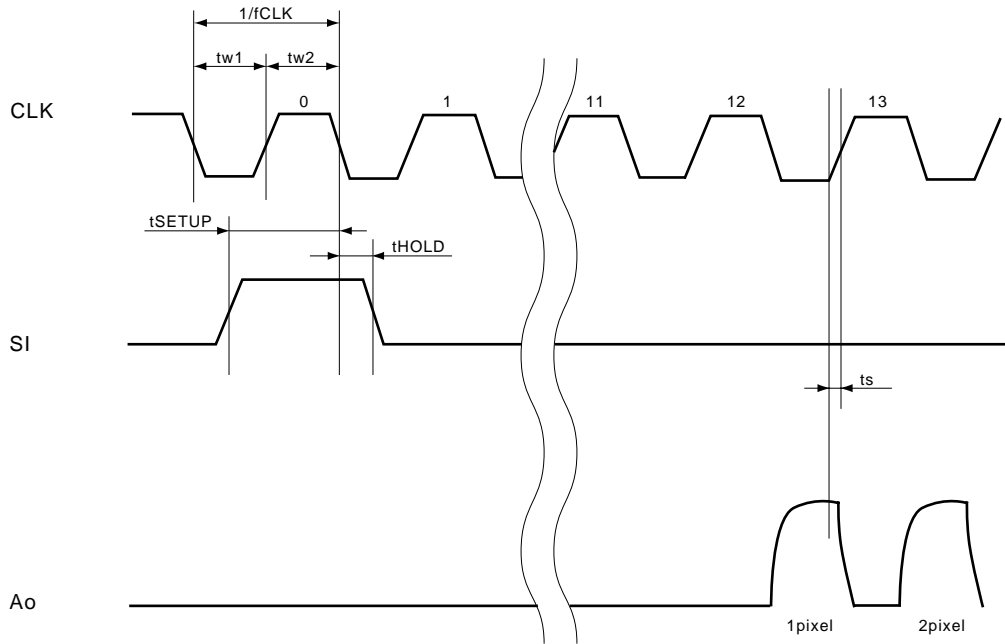
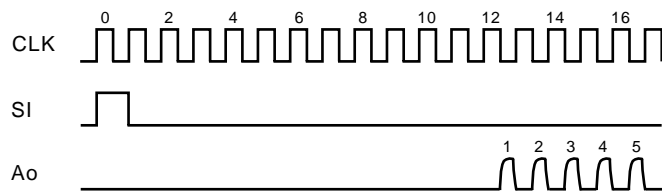


Fig.1

(b) Data Output Timing Chart

After turning on the SI pulse, the analog output starts from the setting up point of 12CLK pulse.



Note) The CLK section area which is over the effective pixel numbers (Output blank part) cannot be used as the analog Output standard level.

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●Equivalent circuit

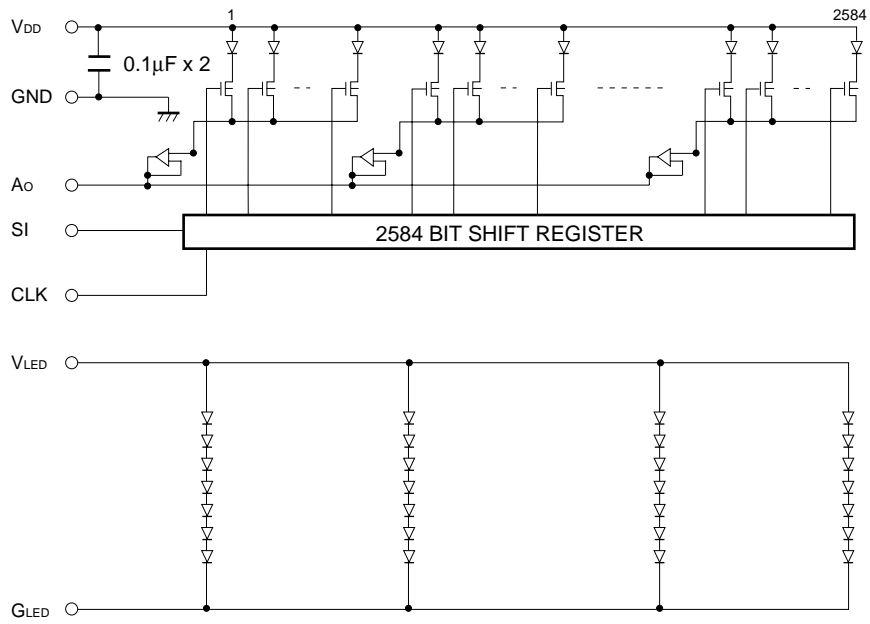


Fig.2

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