GP1A05HR/GP1A22HR

OPIC Photointerrupter with Connector

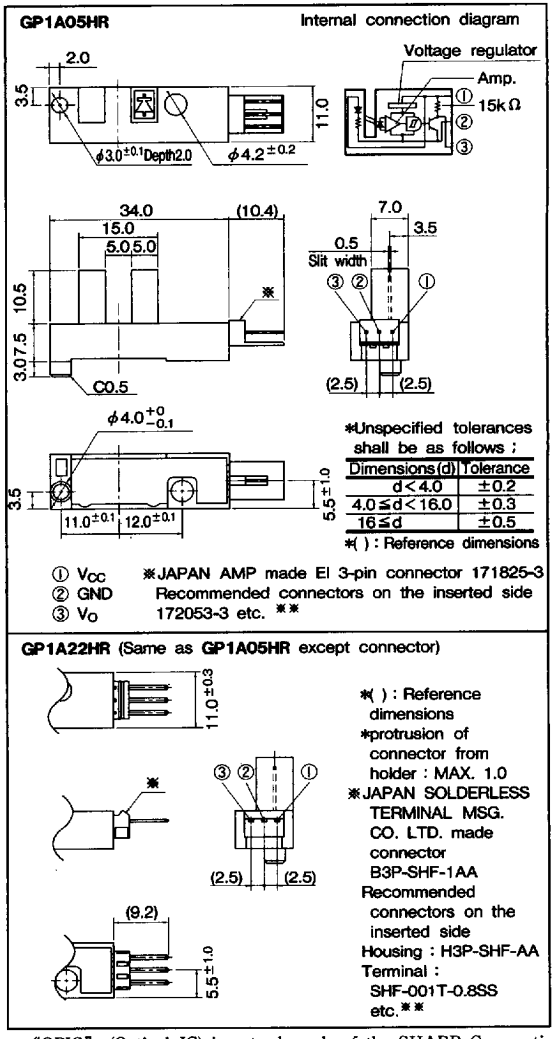
■ Features

1. 3-pin connector-terminal
2. High sensing accuracy (Slit width : 0.5mm)
3. Wide gap between light emitter and detector (5mm)

■ Applications

1. Copiers
2. Printers
3. Facsimiles

■ Outline Dimensions (Unit : mm)



* "OPIC" (Optical IC) is a trademark of the SHARP Corporation. An OPIC consists of a light-detecting element and signal-processing circuit integrated onto a single chip.

** Recommended connectors on the inserted side are shown on the page after next.

■ Absolute Maximum Ratings (Ta=25℃)

Parameter	Symbol	Rating	Unit
Supply voltage	V_{CC}	−0.5 to 8	V
*1Low level output current	I_{OL}	50	mA
*2Operating temperature	T_{opr}	−20 to +75	℃
*2Storage temperature	T_{stg}	−40 to +85	℃

*1 Collector current of output transistor
*2 The connector should be plugged in/out at normal temperature.

■ Electro-optical Characteristics (V_{CC}=5V, Ta=25℃)

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Operating supply voltage	V_{CC}		4.5	−	5.5	V
Low level supply current	I_{CCL}	Light beam interrupted	−	−	30	mA
Low level output voltage	V_{OL}	Light beam interrupted, I_{OL}=16mA	−	−	0.4	V
High level supply current	I_{CCH}	Light bem uninterrupted	−	−	30	mA
High level output voltage	V_{OH}	Light beam uninterrupted	V_{CC}×0.9	−	−	V
*4Responxe Frequency	f	*3	−	−	3 000	Hz

*3 NO DC output is allowed.
*4 Response frequency is measured with the disk shown below being rotated. (Unit : mm)

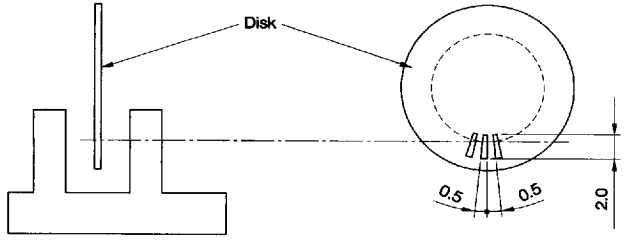


Fig.1 Low Level Output Current vs. Ambient Temperature

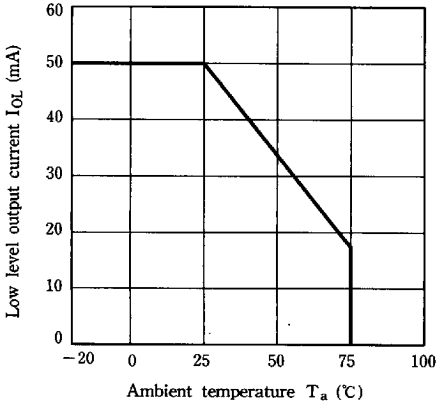


Fig.2 Low Level Output Voltage vs. Low Level Output Current

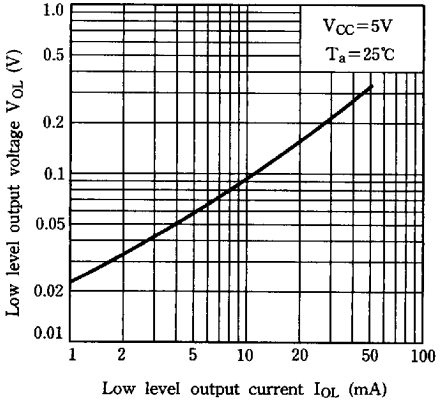


Fig. 3 Low Level Output Voltage vs. Ambient Temperature

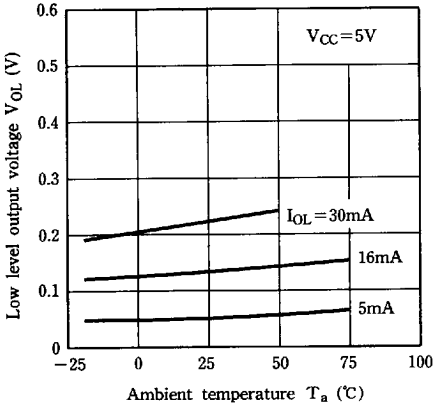


Fig. 4 Supply Current vs. Supply Voltage

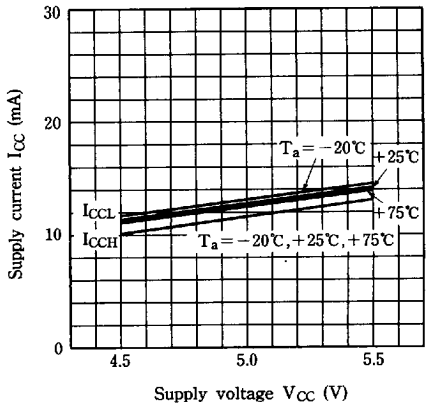


Fig. 5 Detecting Position Characteristics (1)

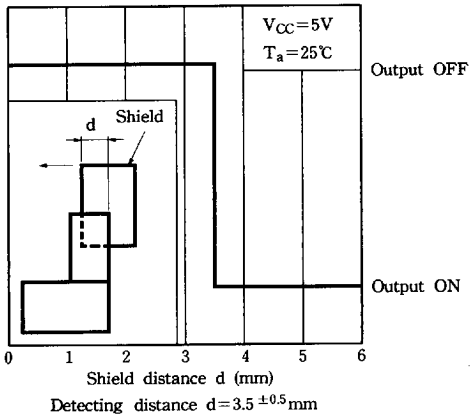
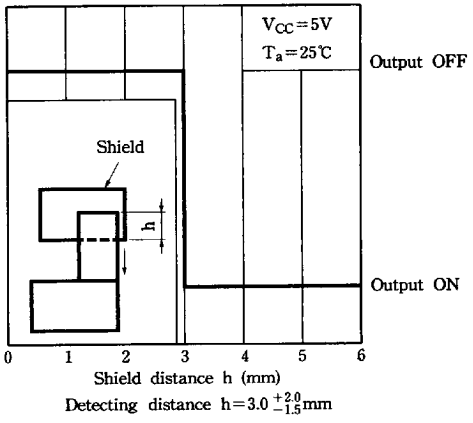


Fig. 6 Detecting Position Characteristics (2)



■ Recommended Connectors on the Inserted Side

Recommended connector for **GP1A05HR** is same as **GP1A05**'s.
Recommended connector for **GP1A22HR** is same as **GP1A23LC**'s.
(Refer to page 667.)

■ Precautions for Use

(1) It is recommended that a by-pass capacitor of more than 0.01 μF be added between V_{CC} and GND near the device in order to stabilize power supply line.
(2) In this product, the PWB is fixed with a resin cover, and cleaning solvent may remain inside the case ; therefore, dip cleaning or ultrasonic cleaning is prohibted.
(3) Remove dust or stains, using an air blower or a soft cloth moistened in cleaning solvent. However, do not perform the above cleaning using a soft cloth with cleaning solvent in the marking portion.
In this case, use only the following type of cleaning solvent used for wiping off:
Ethyl alcohol, Methyl alcohol, Isopropyl alcohol
When the cleaning solvents expect for specifeid materials are used, please consalt us.
(4) As for other general cautions, refer to the chapter "Precautions for Use" . (Page 78 to 93)