

## OPIC Photointerrupter with Connector

### ■ Features

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

### ■ Applications

1. Copiers, Printers
2. Facsimiles

### ■ Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Unit
Suppl voltagey	V <sub>CC</sub>	-0.5 to +8	V
Output voltage	V <sub>OUT</sub>	-0.5 to +28	V
Low level output current	I <sub>OL</sub>	50	mA
Operating temperature	T <sub>opr</sub>	-20 to +75	°C
Storage temperature	T <sub>stg</sub>	-40 to +85	°C

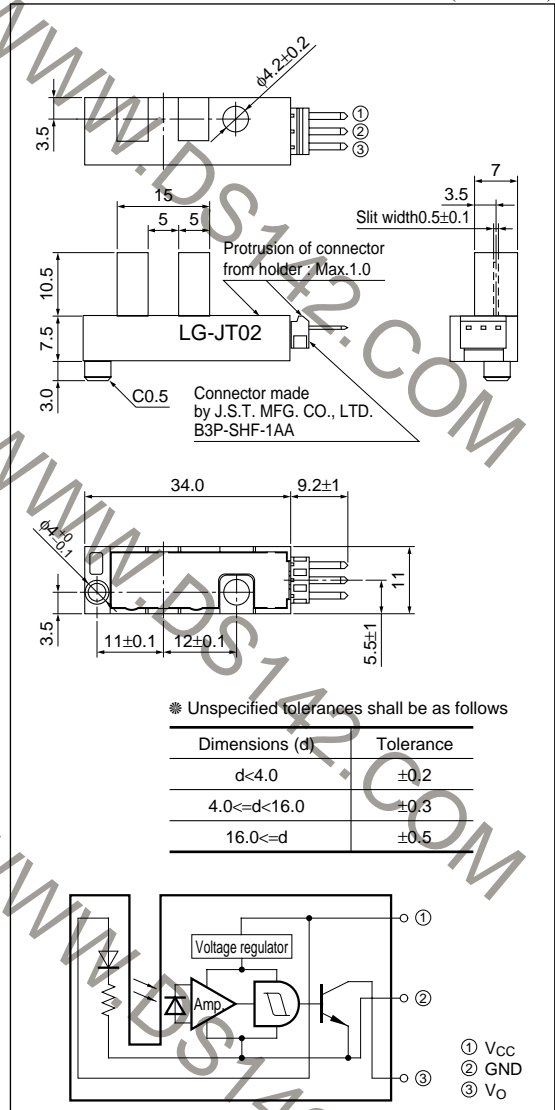
\*1 Collector-emitter voltage of output transistor.

\*2 Collector current of output transistor.

\*3 The connector should be plugged in/out at normal temperature.

### ■ 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.

# LG-JT02

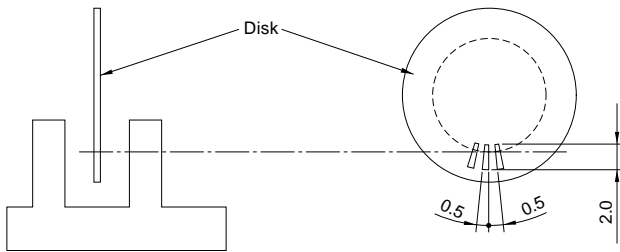
## ■ Electro-optical Characteristics

(Unless otherwise specified,  $V_{CC}=5V$ ,  $T_a=25^\circ C$ )

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 uninterrupted	—	—	30	mA
Low level output voltage	$V_{OL}$	Light beam uninterrupted, $I_{OL}=16mA$	—	—	0.35	V
High level supply current	$I_{CCH}$	Light beam interrupted	—	—	30	mA
High level output voltage	$V_{OH}$	Light beam interrupted, $R_L=47k\Omega$	$V_{CC}\times 0.9$	—	—	V
*4 Response frequency	f	No DC output is allowed, $R_L=47k\Omega$	—	—	3 000	Hz

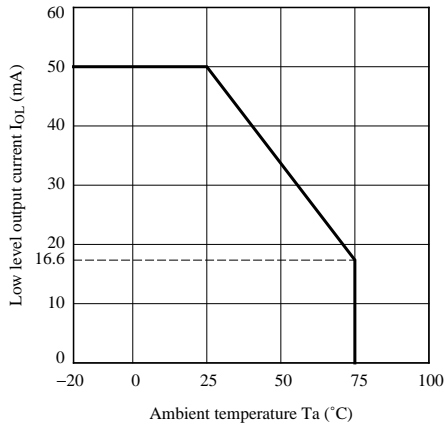
\*4 Refer to Fig.1

**Fig.1 Response Frequency**

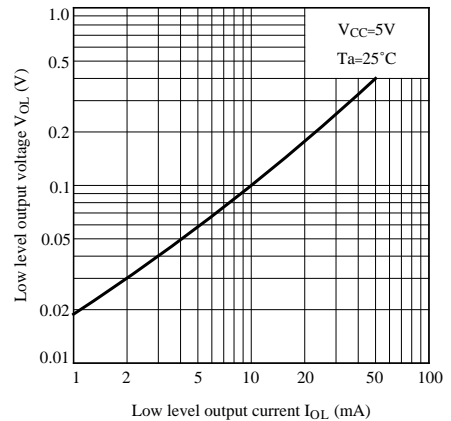


Response frequency is measured with the disk shown below being rotated. (Unit : mm)

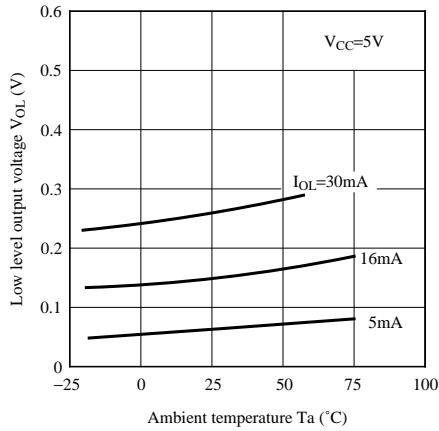
**Fig.2 Low Level Output Current vs. Ambient Temperature**



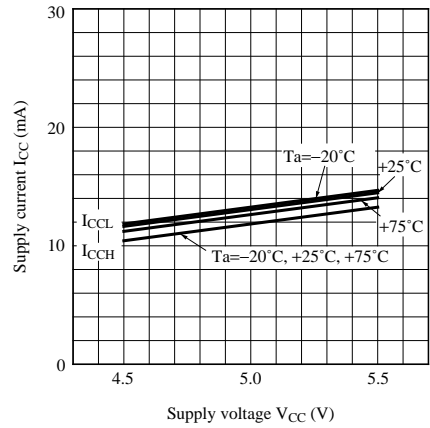
**Fig.3 Low Level Output Voltage vs. Low Level Output Current**



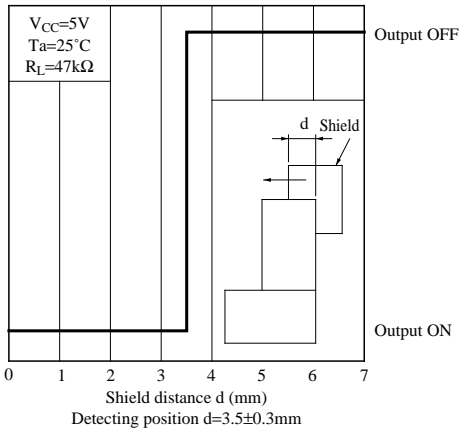
**Fig.4 Low Level Output Voltage vs. Ambient Temperature**



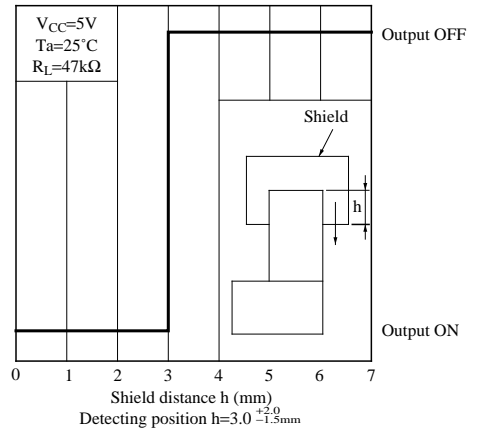
**Fig.5 Supply Current vs. Supply Voltage**



**Fig.6 Detecting Position Characteristics (1)**



**Fig.7 Detecting Position Characteristics (2)**



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## ■ Recommended Connectors on the Inserted Side

### ◆ JAPAN SOLDERLESS TERMINAL MFG. CO., LTD. made

(Natural color • bulk)

Housing Model No.	H3P-SHF-AA			S3P-SHF-1		
Special terminal Model. No.	AWG size	Material	Model No.	AWG size	Material	Model No.
	AWG 28 to 22	Brass	SHF-001T-0.8SS	AWG 27 to 22	Brass	SHF-001T-0.8P
		Copper phosphide	SHF-001T-0.8BS		Copper phosphide	–
	AWG 30 to 28	Brass	SHF-002T-0.8SS	AWG 30 to 28	Brass	SHF-002T-0.8P
		Copper phosphide	SHF-002T-0.8BS		Copper phosphide	–