GP1AQ36L

High Temperature Operation Type OPIC Photointerrupter with Connector

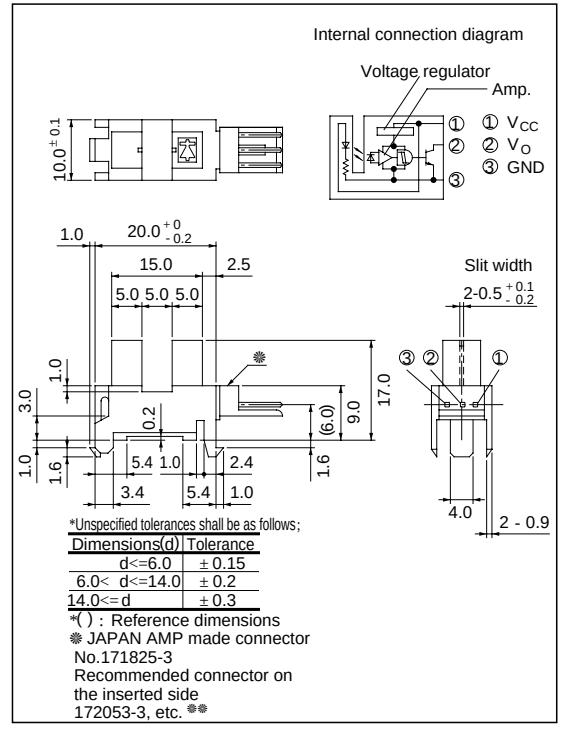
■ Features

1. Capable of operation at high temperature (Operating temperature: 90˚C MAX.)
2. Snap-in mounting type
3. Can be mounted on 2 different thickness boards (1.0mm, 1.2mm)
4. Uses 3-pin connector terminal

■ Applications

1. Copiers, laser beam printers
2. Facsimiles
3. FA equipment

■ Outline Dimensions (Unit : mm)



❋❋ Recommended connecters on the inserted side are shown on the page after next

*" 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.

■ Absolute Maximum Ratings (Ta = 25˚C)

Parameter	Symbol	Rating	Unit
Supply voltage	V_{CC}	- 0.5 to + 10	V
*1Output voltage	V_O	- 0.5 to + 28	V
*2Low level output current	I_{OL}	50	mA
*3Operating temperature	T_{opr}	- 25 to + 90	˚C
*3Storage temperature	T_{stg}	- 40 to + 90	˚C

*1 Collector-emitter voltage of output transistor
*2 Collector current of output transistor
*3 The connector should be plugged in/out and the unit's hook should be used at normal temperature.

■ Electro-optical Characteristics

(Ta = 25˚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	-	-	16.5	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	-	-	16.5	mA
High level output voltage		V_{OH}	Light beam interrupted, R_L= 47kΩ	V_{CC} x 0.9	-	-	V
Response characteristics	Minimum light interrupt time	t_H	R_L= 4.7kΩ	166	-	-	µs
	Minimum light uninterrupt time	t_L		166	-	-	µs

Fig. 1 Low Level Output Current vs. Ambient Temperature

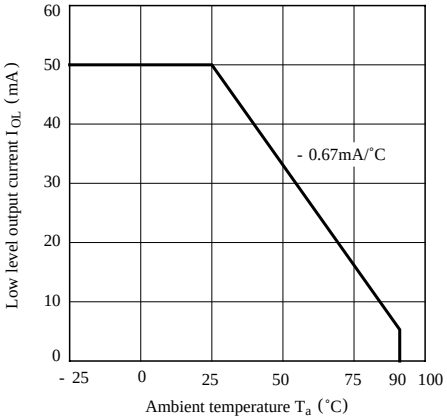


Fig. 2 Low Level Output Voltage vs. Low Level Output Current

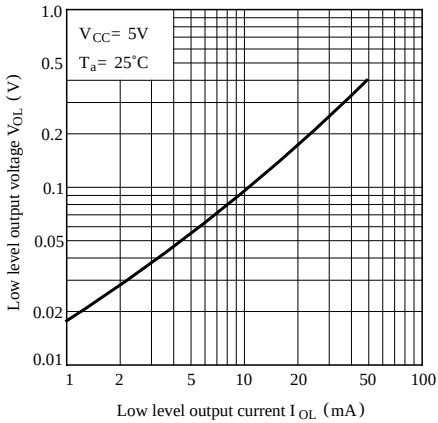


Fig. 3 Low Level Output Voltage vs. Ambient Temperature

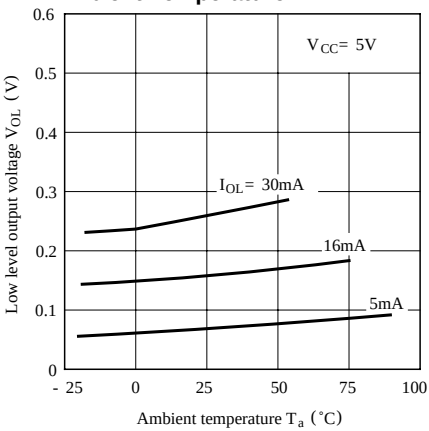


Fig. 4 Supply Current vs. Supply Voltage

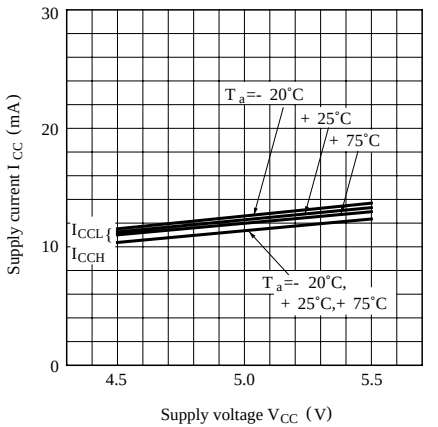
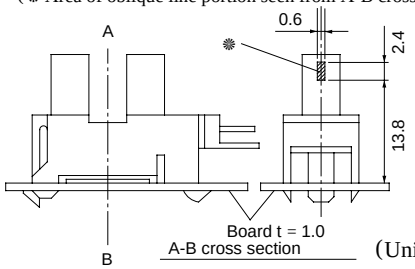


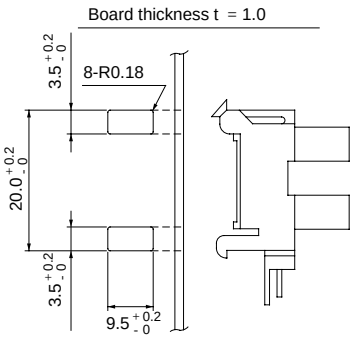
Fig. 5 Detection Area

(✵ Area of oblique line portion seen from A-B cross section)

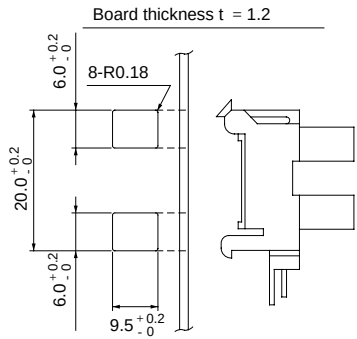


(Unit : mm)

■ Recommended Mounting Holes



Recommended mounting holes　　Mounting method



Recommended mounting holes　　Mounting method

■ Recommended Connectors on the Inserted Side

● JAPAN AMP made EI series connectors (standard type)

Housing color	Natural color	Black	Blue	Green	Red
Housing Model No.	171822-3	2-171822-3	4-171822-3	6-171822-3	8-171822-3

	AWG size	Product shape	Material	Model No.
Special terminal Model. No.	AWG 26 to 20	Bulk	Brass	170204-1
			Copper phosphide	170204-2
		Chain	Brass	170262-1
			Copper phosphide	170262-2
	AWG 30 to 26	Bulk	Brass	170205-1
			Copper phosphide	170205-2
		Chain	Brass	170263-1
			Copper phosphide	170263-2

● JAPAN AMP made EI series connectors (low profile type)

Housing color	Natural color	Black	Blue	Green	Red
Housing Model No.	172142-3	2-172142-3	4-172142-3	6-172142-3	8-172142-3

	AWG size	Product shape	Model No.
Special terminal Model. No. (Material : Copper phosphide)	AWG 26 to 22	Bulk	170369-1
		Chain	170354-1
	AWG 30 to 26	Bulk	170370-1
		Chain	170355-1

● JAPAN AMP made EI series connectors (amp mass termination)

Housing-terminal united type connector	AWG28 (Green)	AWG26 (Natural color)	AWG24 (Black)	AWG22 (Red)
	172054-3	172053-3	172052-3	172051-3

✵ Terminal Material : Copper phosphide

■ Precautions for Use

(1) In oredr to stabilize power supply line, connect a by-pass capacitor of more than 0.01μF between V_{CC} and GND near device.

(2) As for other cautions, refer to the chapter " Precaution for Use".