



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



GP1A75E

Small Size OPIC Photointerrupter with Connector

■ Features

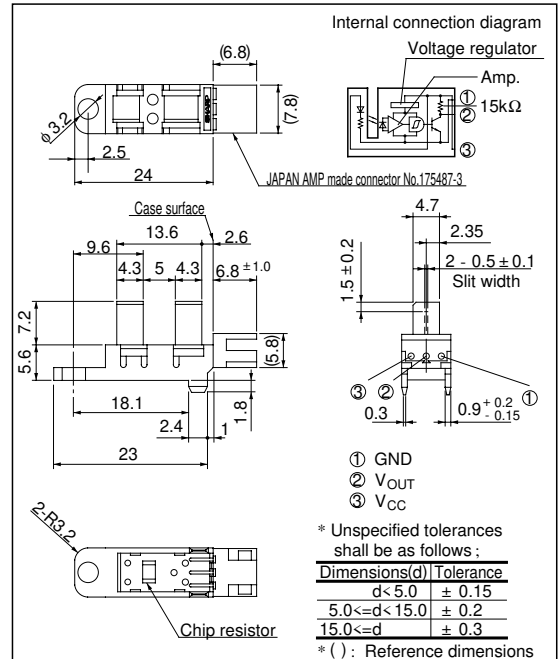
1. 3-pin connector terminal
2. High sensing accuracy
(Slit width: 0.5mm)
3. Wide gap between light emitter and detector (5mm)

■ Applications

1. Copiers
2. Laser beam 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.

■ Absolute Maximum Ratings (T_a= 25°C)

Parameter	Symbol	Rating	Unit
Supply voltage	V _{CC}	- 0.5 to + 10	V
*1 Low level output current	I _{OL}	50	mA
*2 Operating temperature	T _{opr}	- 20 to + 75	°C
*2 Storage temperature	T _{stg}	- 30 to + 85	°C

*1 Collector current of output transistor

*2 The connector should be plugged in/out and the unit's hook should be used at normal temperature.

■ 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 interrupted	-	-	20	mA
Low level output voltage		V_{OL}	Light beam interrupted, $I_{OL} = 16mA$	-	-	0.35	V
High level supply current		I_{CCH}	Light beam uninterrupted	-	-	20	mA
High level output voltage		V_{OH}	Light beam uninterrupted	$V_{CC} \times 0.9$	-	-	V
Response characteristics	Minimum interruption time	t_H	-	166	-	-	μs
	Minimum sensing time	t_L	-	166	-	-	μs

Fig. 1 Low Level Output Current vs. Ambient Temperature

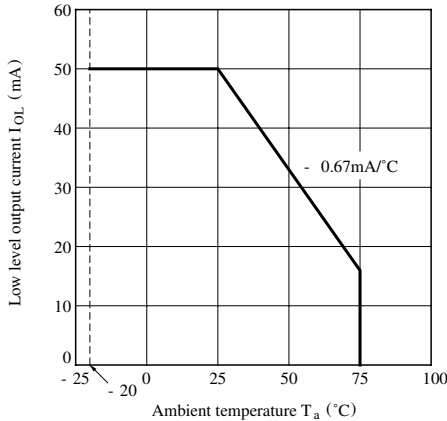


Fig. 2 Low Level Output Voltage vs. Low Level Output Current

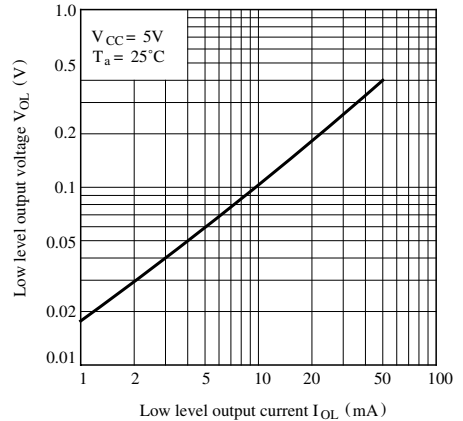


Fig. 3 Low Level Output Voltage vs. Ambient Temperature

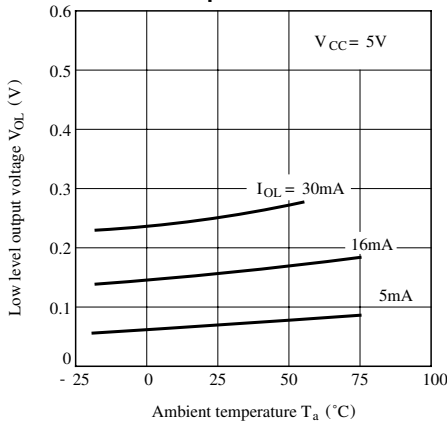


Fig. 4 Supply Current vs. Supply Voltage

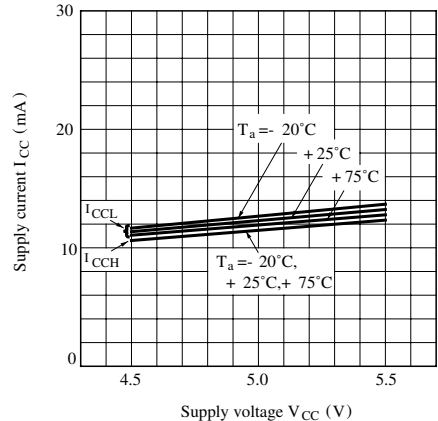


Fig. 5 Detecting Position Characteristics (1)

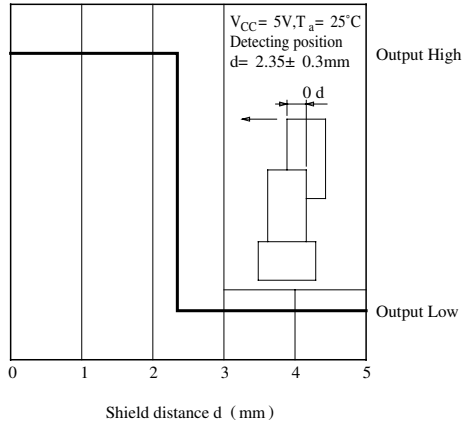
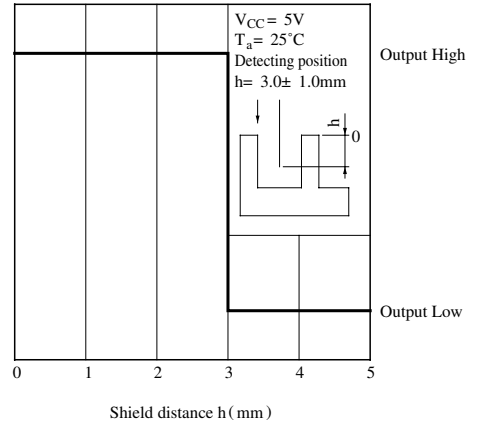
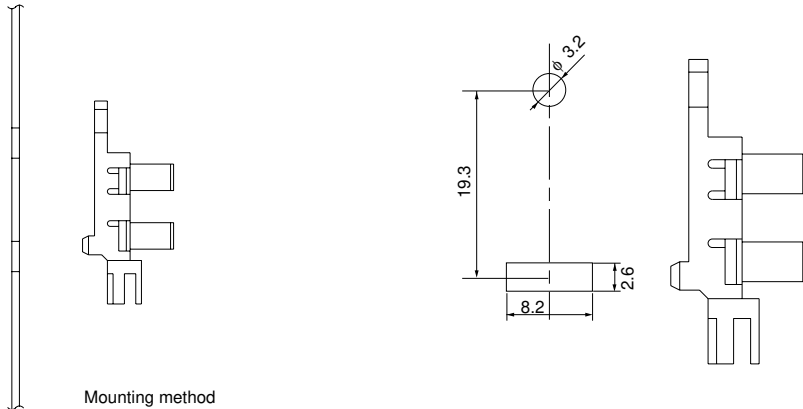


Fig. 6 Detecting Position Characteristics (2)



■ Recommended Mounting Holes (Unit : mm)



■ Precautions for Use

- (1) In this product, the PWB is fixed with a hook, and cleaning solvent may remain inside the case; therefore, dip cleaning or ultrasonic cleaning are prohibited.
- (2) Remove dust or stains, using an air blower or a soft cloth moistened in cleaning solvent. 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 except for specified materials are used, please consult us.
- (3) In order to stabilize power supply line, connect a by-pass capacitor of more than $0.01\mu\text{F}$ between V_{cc} and GND near the device.
- (4) As for other general cautions, refer to the chapter“Precautions for Use”.

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 - Industrial control
 - Audio visual equipment
 - Consumer electronics
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 - Gas leakage sensor breakers
 - Alarm equipment
 - Various safety devices, etc.
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