

GP2A28

Photointerrupter

Modulated Light System, Reflective Type Photointerrupter

■ Features

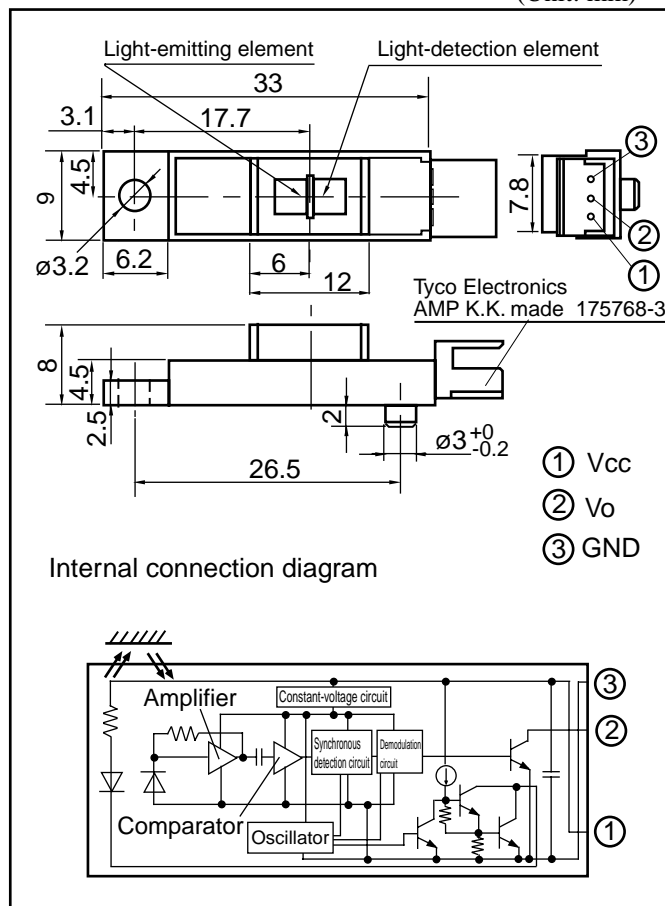
- (1) Uses a modulated light system that is resistant to interference by other light
- (2) With a visible light cutoff filter
- (3) Long focal distance
(Optimum detection distance: 3 to 7 mm)
- (4) Can be connected directly to TTL devices.

■ Applications

- (1) Copy machines
- (2) Facsimiles
- (3) LBP's

■ Outline Dimensions

(Unit: mm)



■ Absolute Maximum Ratings

(Ta=25°C)

| Parameter | Symbol | Rating | Unit | Remarks |
|-----------------------|------------------|--------------|------|---|
| Supply voltage | Vcc | -0.5 to +7.0 | V | — |
| Output voltage | Vo | 30 | V | — |
| Output current | I _{OL} | 50 | mA | Drawing current *1 |
| Operating temperature | T _{opr} | -10 to +70 | °C | Connectors should only be plugged or unplugged at room temperature. |
| Storage temperature | T _{stg} | -20 to +80 | °C | |

*1 The output current derating curve is shown in Fig. 1.

(Notice)

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(Internet)

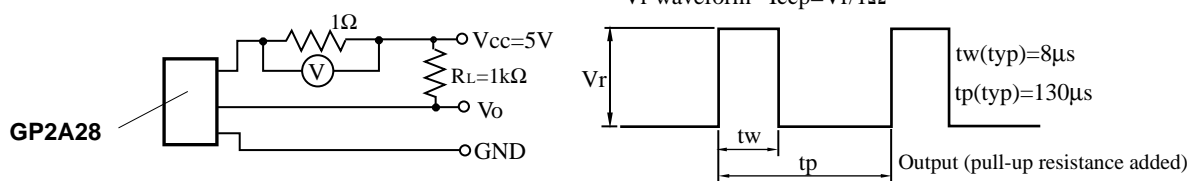
•Data for Sharp's optoelectronic/power devices is provided on internet. (Address <http://www.sharp.co.jp/ecg/>)

Electro-optical Characteristics

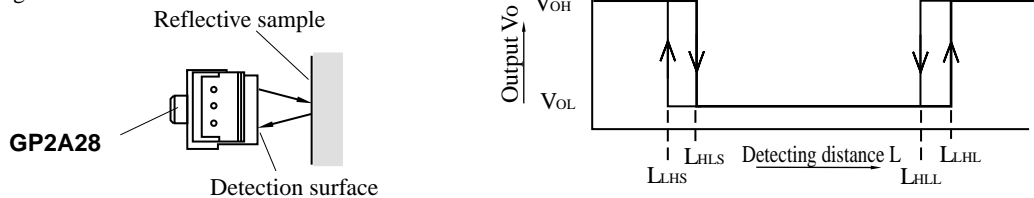
(Ta=25°C)

| Parameter | Symbol | Conditions | MIN. | TYP. | MAX. | Unit |
|---------------------------|--------|---|------|------|------|------|
| Supply voltage | Vcc | — | 4.75 | — | 5.25 | V |
| Dissipation current | Icc | Vcc=5V, RL=∞, When smoothed | — | — | 30 | mA |
| Dissipation current | Iccp | Vcc=5V, Peak pulse value, *1 | — | — | 150 | mA |
| Low level output voltage | VOL | Vcc=5 V, IOL=16 mA, When light is detected | — | — | 0.4 | V |
| High level output voltage | VOH | Vcc=5 V, RL=1kΩ, When light is not detected | 4.5 | — | — | V |
| Non-detecting distance | LLHL | Kodak 90% reflectivity paper, Vcc=5V, *2 | — | — | 27.0 | mm |
| Detecting distance | LHLS | Kodak 90% reflectivity paper, Vcc=5V, *2 | — | — | 1.0 | mm |
| | | Black paper, Vcc=5V, *2 | — | — | 3.0 | mm |
| | LHLL | Kodak 90% reflectivity paper, Vcc=5V, *2 | 9.0 | — | — | mm |
| | | Black paper, Vcc=5V, *2 | 7.0 | — | — | mm |
| Response time | tPLH | Vcc=5V, *3 | — | — | 1.0 | ms |
| | tPHL | | — | — | 1.0 | ms |

*1 Measuring method for the peak pulse value(Iccp)



*2 Measuring method for distance characteristics



*3 Measuring method for response time

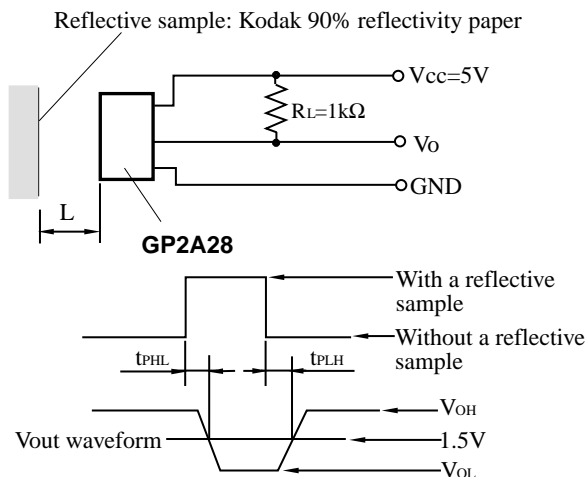
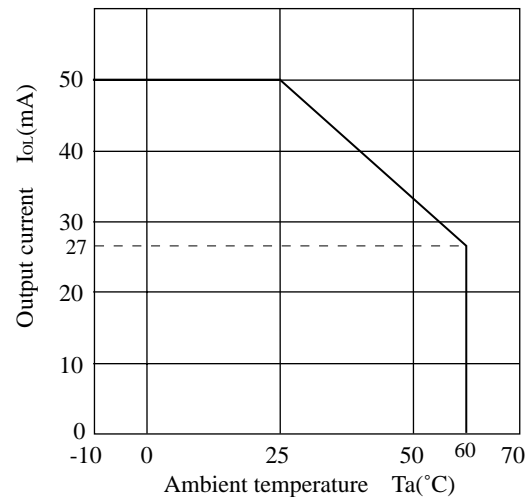


Fig. 1 Output Current vs. Ambient Temperature



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 - Test and measurement equipment
 - Industrial control
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 - Consumer electronics
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