ホトセンサユニット(反射形)

ON2528

■概 要

ON2528は、ハイブリッド技術により、反射形ホトセン サにアンプを内蔵した小型、軽量、高精度、高信頼性のホト センサユニットです。

物体検知用、無接点スイッチとして特に密着紙検知用 のホトセンサとして最適です。

■特 長

- アンプ内蔵形で小形、高信頼性。
- オープンコレクタ出力。
- 小型コネクタを使用。

■用 途

- 複写機の紙検知
- プリンタの紙検知
- ファクシミリの紙検知

Photosensor Units (Reflective Type)

・本資料に記載の品番は、従来品番です。

• The part number mentioned in this datasheet is conventional part number.

Outline

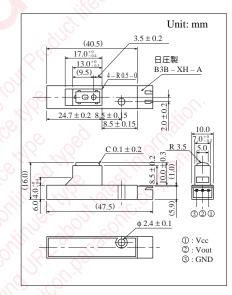
The ON2528 is a small, light weight, highly precise and reliable photo sensor unit incorporating amplifier in the re-flective photo sensor by hybrid technique. Widely applied for object detection, contactless switch and especially for paper detection.

Features

- Small size and reliability
- Open-collector output
- Power supply, output connection with small connector

Use

- Paper detection of copying machine
- Paper detection of printer
- Paper detection of facsimile



■絶対最大定格 Absolute Maximum Ratings (T_a = 25°C)

| Item | symbol | Value | Unit | |
|--------------------------------------|----------------------|---------|------|--|
| 電源電圧 Supply Voltage | V _{CC} | 9 | V | |
| コレクタ損失 Collector Power Dissipation | P _C | 360 | mW | |
| 出力電圧 Output Voltage | V _{O (Max)} | 24 | V | |
| 動作周囲温度 Operating Ambient Temperature | T _{opr} | -10~+60 | °C | |
| 保存温度 Storage Temperature | T _{stg} | -20~+75 | °C | |

■電気的特性 Electrical Characteristics (T_a = 25°C)

| | Item | symbol | Condition | Min | typ | Max | Unit |
|-----------|---------------------------------|-------------------------------|--|------|------|------|------|
| 電源電圧 | Supply Voltage | V _{CC} | 401 13 | 4.75 | 5.00 | 5.25 | V |
| 電源電流 | Supply Current | I _{CC} *1 | 物体検知時, $R_L = \infty$ Object at Detection, $R_L = \infty$ | | | 40 | mA |
| 出力吸込電流 | Output Sink Current | I _{SINK} *2 | 物体検知時, $V_0 = 1.5 V$ Object at Non Detection, $V_0 = 1.5 V$ | 6 | | | mA |
| " L "出力電圧 | "L "Output Voltage | V _{OL} *3 | 物体検知時,V _{CC} = 5 V, I _{SINK} = 3 mA Object at Non Detection, V _{CC} = 5 V, I _{SINK} = 3 mA | | 0.2 | 0.4 | V |
| " H '出力電圧 | "H "Output Voltage | V _{OH} ^{*4} | 物体検知時, $R_L = 10 \text{ k}\Omega$ $V_{CC} = 5 \text{ V}, V_O = 5 \text{ V}$ Object at Detection, $R_L = 10 \text{ k}\Omega$ $V_{CC} = 5 \text{ V}, V_O = 5 \text{ V}$ | 4.7 | 4.9 | | V |
| 検知機能 | Response Characteristics | d*5 | $V_{CC} = 5 V$ | | 0~2 | | mm |

■ご使用上の注意 Handing caution

- 1 洗浄の際 薬品の使用は避けて下さい。/ Chemicals should be avoided when washing.
- 2 取付の時のビス締め強度は6kg/cm以下にして下さい。/ Screw crasping intensity of fixing is less than 6 kg/ cm.

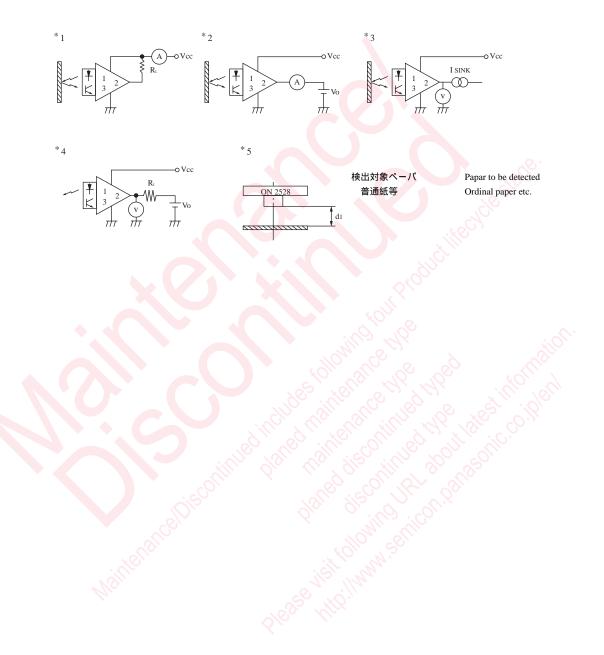
Panasonic

ホトセンサユニット(反射形)

Photosensor Units (Reflective Type)

試験回路

Test circuit



▲Caution for Safety

This product contains Gallium Arsenide (GaAs).

GaAs powder and vapor are hazardous to human health if inhaled or ingested. Do not burn, destroy, cut, cleave off, or chemically dissolve the product. Follow related laws and ordinances for disposal. The product should be excluded from general industrial waste or household garbage.

Request for your special attention and precautions in using the technical information and semiconductors described in this book

- (1) If any of the products or technical information described in this book is to be exported or provided to non-residents, the laws and regulations of the exporting country, especially, those with regard to security export control, must be observed.
- (2) The technical information described in this book is intended only to show the main characteristics and application circuit examples of the products, and no license is granted under any intellectual property right or other right owned by our company or any other company. Therefore, no responsibility is assumed by our company as to the infringement upon any such right owned by any other company which may arise as a result of the use of technical information described in this book.
- (3) The products described in this book are intended to be used for standard applications or general electronic equipment (such as office equipment, communications equipment, measuring instruments and household appliances). Consult our sales staff in advance for information on the following applications:
 - Special applications (such as for airplanes, aerospace, automobiles, traffic control equipment, combustion equipment, life support systems and safety devices) in which exceptional quality and reliability are required, or if the failure or malfunction of the products may directly jeopardize life or harm the human body.
 - Any applications other than the standard applications intended.
- (4) The products and product specifications described in this book are subject to change without notice for modification and/or improvement. At the final stage of your design, purchasing, or use of the products, therefore, ask for the most up-to-date Product Standards in advance to make sure that the latest specifications satisfy your requirements.
- (5) When designing your equipment, comply with the range of absolute maximum rating and the guaranteed operating conditions (operating power supply voltage and operating environment etc.). Especially, please be careful not to exceed the range of absolute maximum rating on the transient state, such as power-on, power-off and mode-switching. Otherwise, we will not be liable for any defect which may arise later in your equipment.

Even when the products are used within the guaranteed values, take into the consideration of incidence of break down and failure mode, possible to occur to semiconductor products. Measures on the systems such as redundant design, arresting the spread of fire or preventing glitch are recommended in order to prevent physical injury, fire, social damages, for example, by using the products.

- (6) Comply with the instructions for use in order to prevent breakdown and characteristics change due to external factors (ESD, EOS, thermal stress and mechanical stress) at the time of handling, mounting or at customer's process. When using products for which damp-proof packing is required, satisfy the conditions, such as shelf life and the elapsed time since first opening the packages.
- (7) This book may be not reprinted or reproduced whether wholly or partially, without the prior written permission of Matsushita Electric Industrial Co., Ltd.

If you have any inquiries or questions about this book or our semiconductor products, please contact one of our sales offices listed on the back or Semiconductor Company's Department.