

ON2530

- ・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.

■ 概要

ON2530シリーズは光変調タイプの集積化受光素子、発光素子を内蔵した小型、軽量、高精度、高信頼性の反射型ホトセンサユニットです。

■ 特長

- 外乱光に強い (Max. 3000ルクス)
- 検出範囲を限定できる
- 高速応答 (Max. 0.5 ms)
- オープンコレクタ出力 (物体検知時 OFF)

■ 用途

- 複写機の紙検知、サイズ検出
- ファクシミリ紙検知
- プリンタの紙検知
- 制御機器の物体検出

Outline

ON2530 Series are small light weight, high reliability photo sensor unit composed of a modulated phot IC and a modulated light-emitting device.

Features

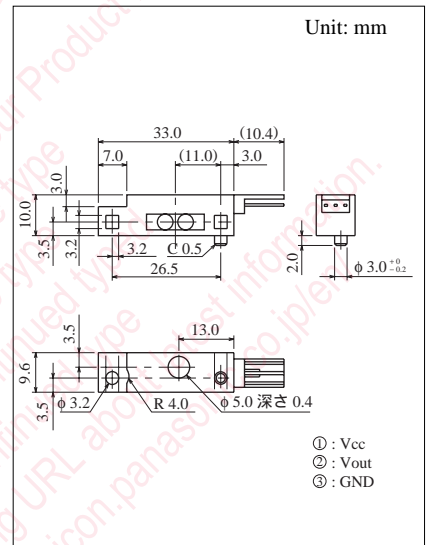
- Not affected by external light interference (Max. 3000lx)
- Adjustable detecting Area.
- High Speed Response (Max. 0.5 ms)
- Open-Collector output (Object at Detection OFF)

Use

- Paper detection of copying machine, size detection.
- Paper detection of facsimile
- Paper detection of printer
- Detection of control systems

■ 絶対最大定格 Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Item	symbol	Value	Unit	
電源電圧	Supply Voltage	V_{CC}	14	V
出力電圧	Output Voltage	P_C	14	V
出力電流	Output Current	I_O	30	mA
動作周囲温度	Operating Ambient Temperature	T_{opr}	-10 ~ +60	$^\circ\text{C}$
保存温度	Storage Temperature	T_{stg}	-20 ~ +80	$^\circ\text{C}$



■ 電気的特性 Electrical Characteristics ($T_a = 25^\circ\text{C}$)

Item	symbol	Condition	Min	typ	Max	Unit
電源電圧	Supply Voltage	V_{CC}	4.5	5.0	5.5	V
消費電流	Current Consumption	I_{CC}			40	mA
		I_{CCP}	* 1 Pulse Current Peak			150
ハイレベル出力電圧	Hi Level Output Voltage	V_{OH}	$V_{CC} = 5\text{ V } R_L = 4.7\text{ k}\Omega$	4.0		V
ローレベル出力電圧	Low Level Output Voltage	V_{OL}	$V_{CC} = 5\text{ V } I_{OL} = 10\text{ mA}$		0.4	V
H-L伝達時間	H-L Coupled time	t_{PHL}	* 2 $V_{CC} = 5\text{ V } R_L = 4.7\text{ k}\Omega$		0.5	ms
L-H伝達時間	L-H Coupled time	t_{PLH}			0.5	ms
外乱光許容照度	Maximum permissible Ambient illuminance	E_{VO}	* 3 A Light source		3,000	lx
検出距離	Detection Distance	$d1$	* 4 Kodak 18% ,Brack Paper	2	5	mm
		$d1$	* 4 Kodak 90% ,white Paper	1	6	mm
非検出距離	Non Detection Distance	$d2$	* 4 Kodak 90% ,white Paper	15		mm

■ ご使用上の注意 Handling caution

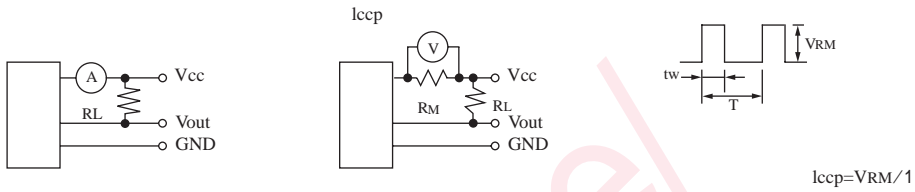
- 1 洗浄の際、薬品の使用は避けて下さい。/ Chemicals should be avoided when washing.
- 2 取付の時のビス締め強度は6kg/cm以下にして下さい。/ Screw crasping intensity of fixing is less than 6 kg/cm.

ホトセンサユニット(反射形)

Photosensor Units (Reflective Type)

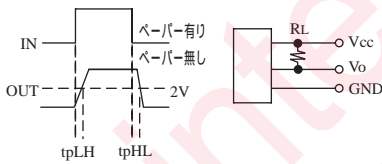
* 消費電流測定条件

Current Consumption test condition



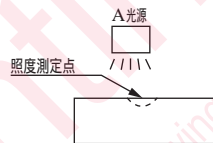
* 2 伝達時間測定条件

Coupled time test condition



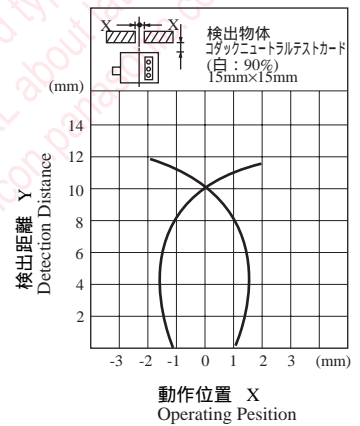
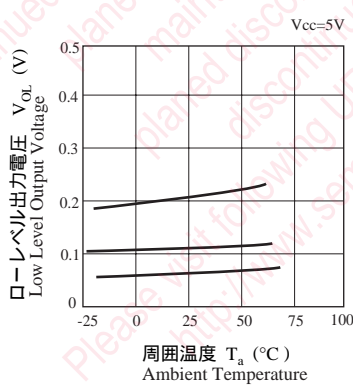
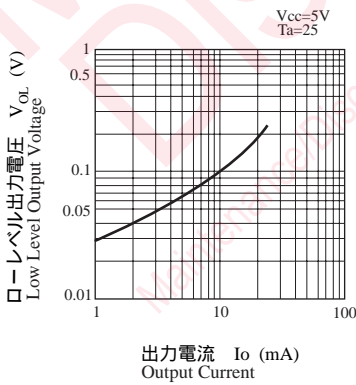
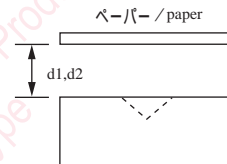
* 3 外乱光許容照度測定条件

Maximum Permissible Ambient illuminance test condition



* 4 検出距離特性測定条件

Detection Distance test condition



Caution for Safety

 **DANGER**

■ 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.

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