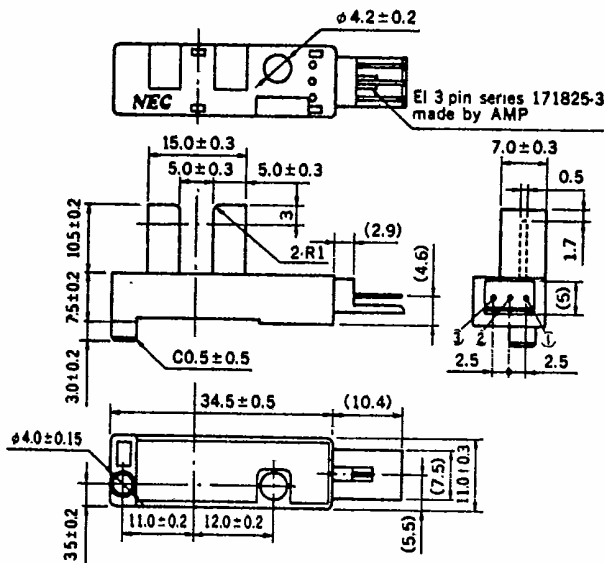


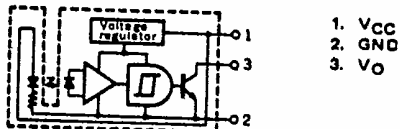
PHOTO INTERRUPTER PS5501HC-1

PHOTO IC INTERRUPTER

PACKAGE DIMENSIONS (Unit : mm)



CONNECTION DIAGRAM



DESCRIPTION

The PS5501HC-1 photo interrupter module is a GaAs Light Emitting Diode coupled to a Si monolithic integrated circuit including a Photo Diode in a plastic housing with a connector.

The output incorporates a Schmitt Trigger circuit which provides hysteresis for noise immunity and pulse shaping.

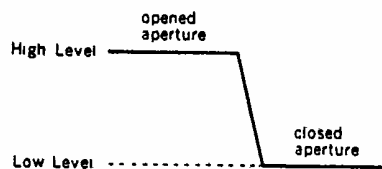
FEATURES

- Built-in Schmitt Trigger circuit
- Housing with a connector (EI 3pin series 171825-3 made by AMP)
- TTL, LSTTL, CMOS compatible
- High On/Off resolution (Slit width: 0.5 mm)
- High frequency response ($f = 3\ 000\ \text{Hz MIN.}$)
- Wide slot between Emitter and Detector (Slot width: 5 mm)
- Active "High"
- Open collector output

APPLICATIONS

- PPC
- FACSIMILE
- PRINTER
- FDD

OUTPUT PATTERN



ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

Supply Voltage	V_{CC}	8	V
Output Voltage	V_O	28	V
Low Level Output Current	I_{OL}	50	mA
Storage Temperature	T_{stg}	-40 to +100	$^\circ\text{C}$
Operating Temperature	T_{opt}	-30 to +85	$^\circ\text{C}$

RECOMMENDED OPERATING CONDITIONS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT
Operating Temperature	T_{opt}	-10		+60	$^\circ\text{C}$
Supply Voltage	V_{CC}	4.5	5	6	V
Low Level Output Current	I_{OL}			16	mA
Frequency Response	f			3000	Hz

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Operating Supply Voltage	V_{CC}	4.5	5	8	V	
Low Level Supply Current	I_{CCL}			30	mA	closed aperture
Low Level Supply Voltage	V_{OL}			0.4	V	closed aperture, $I_{OL} = 16\text{ mA}$
High Level Supply Current	I_{CCH}			30	mA	opened aperture
High Level Supply Voltage	V_{OH}	$V_{CC} \times 0.8$			V	opened aperture, $R_L = 47\text{ k}\Omega$
Frequency Response	f	3000			Hz	$V_O = V_{CC} \times 0.8, R_L = 47\text{ k}\Omega$

* Test Method for Frequency Response

