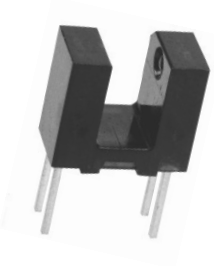
Slotted Optical Switch

OPB610, OPB611, OPB620, OPB621



Features:

- Non-contact switching
- Printed circuit board mounting
- Enhanced signal to noise ratio
- PIN photodiode sensor for high speed (OPB611, OPB621)
- Lead centers: 0.275: (OPB61_) / 0.320” (OPB62_)

Description:

The **OPB610** and **OPB620** slotted optical switches consist of an infrared emitting diode and an NPN silicon phototransistor with an enhanced low current roll-off to improve contrast ratio and immunity to background irradiance.

The **OPB611, OPB621** slotted optical switch consists of an infrared emitting diode and a PIN photodiode with a polysulfone housing that is opaque to visible light, but transmissive to infrared. The low t_r/t_f of the PIN photodiode is ideal for high-speed operation. The sensitivity to ambient radiation is minimized.

Custom electrical, wire and cabling and connectors are available. Contact your local representative or OPTEK for more information.

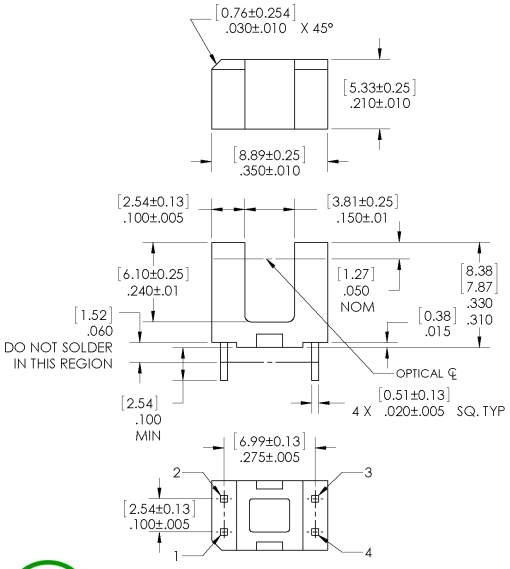
Applications:

- Non-contact reflective object sensor
- Assembly line automation
- Machine automation
- Machine safety
- End of travel sensor
- Door sensor

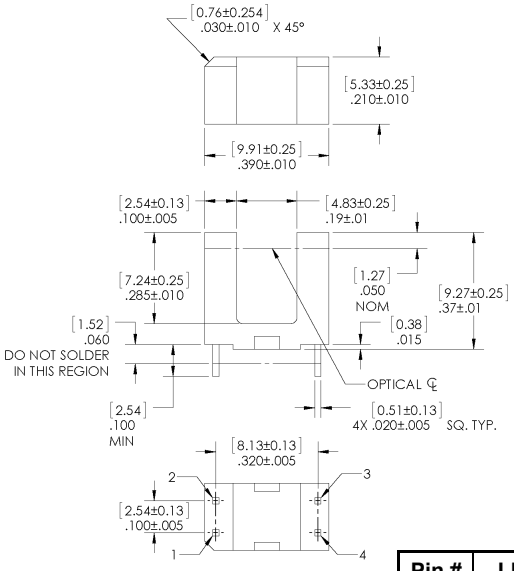
Ordering Information

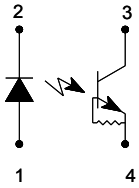
Part Number	LED Peak Wavelength	Sensor	Slot Width / Depth	Aperture Emitter / Sensor	Lead Length / Spacing
OPB610	890 nm	Rbe Transistor	0.150" / 0.240”	0.06” / 0.06”	0.100" / 0.275"
OPB611		Diode			
OPB620		Rbe Transistor	0.190" / 0.285”		0.100" / 0.320"
OPB621		Diode			

OPB610, OPB611

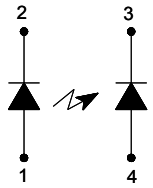


OPB620, OPB621





OPB610, OPB620



OPB611, OPB621

Pin #	LED	Pin #	Transistor / Diode
1	Anode	4	Emitter / Anode
2	Cathode	3	Collector / Cathode

DIMENSIONS ARE IN: [MILLIMETERS] INCHES

RoHS

General Note

TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics’ own data and is considered accurate at time of going to print.

TT Electronics | OPTEK Technology
1645 Wallace Drive, Carrollton, TX 75006|Ph: +1 972 323 2200
www.ttelectronics.com | www.optekinc.com

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Electrical Specifications

Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

Storage and Operating Temperature Range	-40°C to +100° C
Lead Soldering Temperature [1/16 inch (1.6mm) from the case for 5 sec. with soldering iron][1]	260° C

Input Diode

Forward DC Current	50 mA
Peak Forward Current (1 µs pulse width, 300 pps)	3 A
Reverse DC Voltage	3 V
Power Dissipation[2]	100 mW

Output Photodiode (OPB621)

Reverse Breakdown Voltage	60 V
Power Dissipation	100 mW

Output Phototransistor (OPB610, OPB620)

Collector-Emitter Voltage	24 V
Emitter-Reverse Current	10 mA
Collector DC Current	30 mA
Power Dissipation[3]	200 mW

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