



HOA1870-031



Actual product appearance may vary.

HOA Series Transmissive Sensor, Transistor Output, Metal Can Packaged Components

Features

- Choice of phototransistor or photodarlington output
- Accurate position sensing
- 0.070 in [1.78 mm] slot width
- 18.0 in [457 mm] min. 22 AWG UL 1007 wire leads

Description

The HOA1870 series consists of an infrared emitting diode facing an NPN silicon phototransistor (HOA1870-031) or photodarlington (HOA1870-033) encased in a black thermoplastic housing. Detector switching takes place whenever an opaque object passes through the slot between emitter and detector. A minimum of 18.0 in (457 mm) lead wires provides alternate electrical connection when PC board mounting is not possible. This device is ideal for use in applications in which maximum position resolution is desired. Both emitter and detector have a 0.006 in (0.152 mm) x 0.040 in (1.02 mm) vertical aperture. The HOA1870 series employs plastic molded components. For additional component information see SEP8506, SDP8406 and SDP8106.

Housing material is polycarbonate. Housings are soluble in chlorinated hydrocarbons and ketones. Recommended cleaning agents are methanol and isopropanol.

Wire color code and functions are:

- Orange - IRED anode
- White - Detector Collector
- Green - IRED Cathode
- Blue - Detector Emitter

Product Specifications	
Series Name	Transmissive Sensor
Product Type	IR Switch
On-State Collector Current	0.30 mA
Output	Transistor
Package Components	Plastic
Package Color	Black
Forward Current	20 mA
Continuous Forward Current	50 mA
Forward Voltage	1.6 V
Reverse Breakdown Voltage	3 V
Reverse Current	10 μ A
Housing Material	Polycarbonate
Rise and Fall Time	15 μ s
Power Dissipation	100 mW
Operating Temperature Range	-40 °C to 85 °C [-40 °F to 185 °F]
Dark Current	100 nA
Collector DC Current	30 mA
Collector-Emitter Breakdown Voltage	30 V
Emitter-Collector Breakdown Voltage	5 V
Collector-Emitter Saturation Voltage	0.4 V
Detector Color	White
IRED Anode Color	Orange
IRED Cathode Color	Green
Detector Emitter Color	Blue
Availability	Global
Sensor Aperture	1,02 mm x 0,15 mm [0.040 in x 0.006 in]
Slot Width	1,78 mm [0.070 in]