



### HOA1180-002



#### HOA Series Reflective Sensor, Transistor Output, Metal Can Packaged Components

*Actual product appearance may vary.*

#### Features

- Choice of phototransistor or photodarlington output
- High sensitivity
- Wide operating temperature range [-55 °C to 100 °C]
- 12.0 in [305 mm] min. 28 AWG PVC insulated wire leads

#### Description

The HOA1180 series consists of an infrared emitting diode and an NPN silicon phototransistor (HOA1180-001, -002) or photodarlington (HOA1180-003), encased side-by-side on converging optical axes in a black thermoplastic housing. The detector responds to radiation from the IRED only when a reflective object passes within its field of view. The HOA1180 series employs metal can packaged components. For additional component information see SE1450, SD1440, and SD1410.

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

Wire color code and functions are:

##### **All devices**

IRED anode - Red  
IRED cathode - Black

##### **HOA1180-001**

Collector - Brown  
Emitter - Black

##### **HOA1180-002**

Collector - Orange  
Emitter - Black

##### **HOA1180-003**

Collector - Yellow  
Emitter - Black

Product Specifications	
Series Name	Reflective Sensor
Product Type	IR Switch
On-State Collector Current	0.16 mA
Output	Transistor
Package Style	Side-Looking
Package Components	Plastic
Package Color	Black
Forward Current	30 mA
Continuous Forward Current	50 mA
Forward Voltage	1.6 V
Reverse Breakdown Voltage	3 V
Reverse Current	10 $\mu$ A
Housing Material	Polyester
Rise and Fall Time	15 $\mu$ s
Power Dissipation	75 mW
Operating Temperature Range	-55 °C to 100 °C [-67 °F to 212 °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
Availability	Global
Optimum Point of Response	6,35 mm [0.25 in]