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HOA6972-T51

Actual product appearance may vary.

HOA Series IR Opaque Optoschmitt Sensor, Transistor Output, Two Mounting Tabs, Plastic Package

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All Sensing and Contr

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Features

Direct TTL interface
Buffer or inverting logic available
Three device output options
Four mounting configurations
Choice of detector aperture
0.125 in [3.18 mm] slot width

Description

The HOA696X/697X series consists of an infrared emitting diode facing an Optoschmitt detector encased in a black thermoplastic housing. Detector switching takes place whenever an opaque object passes through the slot between emitter and detector. The photodetector consists of a photodiode, amplifier, voltage regulator, Schmitt trigger and various output configurations. The user can choose from available options:(1) detector aperture, (2) mounting tab configuration, (3) detector output configuration, and (4) housing material.
The HOA696X series utilizes an IR transmissive polysulfone housing which features smooth optical faces without external aperture openings; this feature is desirable when aperture blockage from airborne contaminants is a possibility.
The HOA697X series employs an opaque polysulfone housing with aperture openings for use in applications in which maximum rejection of ambient light is important, and situations in which maximum position resolution is desired. The HOA696X/697X series employs plastic molded components. For additional component information see SEP8506 and SDP8XX4.
Housing material is polysulfone. Housings are soluble in chlorinated hydrocarbons and ketones. Recommended cleaning agents are methanol and isopropanol.
Device Polarity:
Buffer - Output is LO when optical path is blocked.
Inverter - Output is HI when optical path is blocked.

Supporting Documentation

Dimensions
Schematics and Performance Charts
Engineering Drawing

Product Specifications	
Series Name	Optoschmitt Sensor
Product Type	IR Switch
Output	Totem - Pole
Output Logic	Inverter
Mounting Configuration	Two Mounting Tabs
Package Components	Plastic
Package Color	Black
Continuous Forward Current	50 mA
Forward Voltage	1.6 V
Reverse Breakdown Voltage	3 V
Reverse Current	10 µ A
Maximum Trigger Current	15 mA
Housing Material	Polysulfone, Opaque
Power Dissipation	100 mW
Operating Temperature Range	-40 °C to 70 °C [-40 °F to 158 °F]
Hysteresis (H)	0.05
Operating Supply Voltage	4.5 V to 7.0 V
Supply Voltage	7.0 Vdc
High Level Output Voltage	2.4 V minimum
High Level Supply Current	15 mA
Low Level Output Voltage	0.4 V maximum
Low Level Supply Current	15 mA
Short Circuit Output Current	-20 mA to -100 mA
Output Rise Time	70 ns
Output Fall Time	70 ns
Propagation Delay, Low -High,High -Low	5.0 µ s
Duration of Output Short Vcc or Ground	1.0 second
IRED Trigger Current	15 mA
Comment	Output is HI when incident light intensity is above the turn -on threshold level.
Availability	Global
Sensor Aperture	1,52 mm x 0,25 mm [0.060 in x 0.010 in]
Slot Width	3,18 mm [0.125 in]