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HOA6961-N55



Actual product appearance may vary.

HOA Series IR Transmissive Optoschmitt Sensor, Transistor Output, No Mounting Tab, Plastic Package

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	Open - Collector
Output Logic	Buffer
Mounting Configuration	No Mounting Tab
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, IR Transmissive
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 12.0 V
Supply Voltage	12.0 Vdc
High Level Output Current	100 μ A maximum
High Level Supply Current	15 mA
Low Level Output Voltage	0.4 V maximum
Low Level Supply Current	15 mA
Applied Output Voltage	35 V
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
IREDD Trigger Current	15 mA
Comment	Output is LO when incident light intensity is above the turn - on threshold level.
Availability	Global
Sensor Aperture	1.52 mm x 1.27 mm [0.060 in x 0.050 in]
Slot Width	3.18 mm [0.125 in]

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