



Representative photograph, actual product appearance may vary.

Due to regional agency approval requirements, some products may not be available in your area. Please contact your regional Honeywell office regarding your product of choice.

SDP8600-001

SDP Series Optoschmitt Detector, Side-looking Plastic Package

Features

- Side-looking plastic package
- 55 ° (nominal) acceptance angle
- Wide sensitivity ranges
- TTL/LSTTL/CMOS compatible
- Buffer (SDP8600/8601/8602) or inverting (SDP8610/8611/8612) logic available
- Three different lead spacing arrangements
- Mechanically and spectrally matched to SEP8506 and SEP8706 infrared emitting diodes

Description

The SDP86XX series is a family of single chip Optoschmitt IC detectors molded in a side-looking black plastic package to minimize the effect of visible ambient light. The photodetector consists of a photodiode, amplifier, voltage regulator, Schmitt trigger and an NPN output transistor with a 10 kOhm (nominal) pull-up resistor. Output rise and fall times are independent of the rate of change of incident light. Detector sensitivity has been internally temperature compensated. Flexibility of use is enhanced by a choice of three different lead configurations; in-line (SDP8601/8611), 0.05 in (1.27 mm) offset pin circle (SDP8600/8610) and 0.10 in (2.54 mm) offset center lead (SDP8602/8612).

Device Polarity:

Buffer - Output is HI when incident light intensity is above the turn-on threshold level.

Inverter - Output is LO when incident light intensity is above the turn-on threshold level.



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Product Specifications	
Product Type	IR Component
Angular Response (Degree)	50
Turn-on Threshold Irradiance	2.5 mW/cm ² maximum
Output	10 kOhm Pull-up
Output Logic	Buffer
Package Style	Side-Looking
Package Components	Plastic
Package Color	Black
Power Dissipation	100 mW
Operating Temperature Range	-40 °C to 85 °C [-40 °F to 185 °F]
Hysteresis (H)	5% to 30%
Supply Voltage	12.0 Vdc
High Level Output Voltage	2.4 V minimum
Low Level Output Voltage	0.4 V maximum
Short Circuit Output Current	-20 mA to -100 mA
Internal Pull-up Resistor	5.0 kOhm min., 10.0 kOhm typ., 20.0 kOhm max.
Output Rise Time	60 ns
Output Fall Time	15 ns
Propagation Delay, Low-High,High-Low	5.0 μs
Clock Frequency	100 kHz
Irradiance	25 mW/cm ²
Comment	Output is HI when incident light intensity is above the turn-on threshold level.
Availability	Global
Product Name	Optoschmitt Detector
Supply Current max.	12 mA @ 25 °C
Operate Point	62 μW/cm ² @ 25 °C
Output Current max.	18 mA



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WARNING

PERSONAL INJURY

DO NOT USE these products as safety or emergency stop devices, or in any other application where failure of the product could result in personal injury.

Failure to comply with these instructions could result in death or serious injury.

WARNING

MISUSE OF DOCUMENTATION

- The information presented in this product sheet (or catalog) is for reference only. DO NOT USE this document as product installation information.
- Complete installation, operation and maintenance information is provided in the instructions supplied with each product.

Failure to comply with these instructions could result in death or serious injury.