

Honeywell



SDP8406-002

SDP Series Silicon PhotoTransistor, Side-looking Plastic Package

Features

- Side-looking plastic package
- 50 ° (nominal) acceptance angle
- Wide sensitivity ranges
- Mechanically and spectrally matched to SEP8506 and SEP8706 infrared emitting diodes

Description

The SDP8406 is an NPN silicon phototransistor molded in a side-looking clear plastic package. The chip is positioned to accept radiation through a plastic lens from the side of the package.

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.

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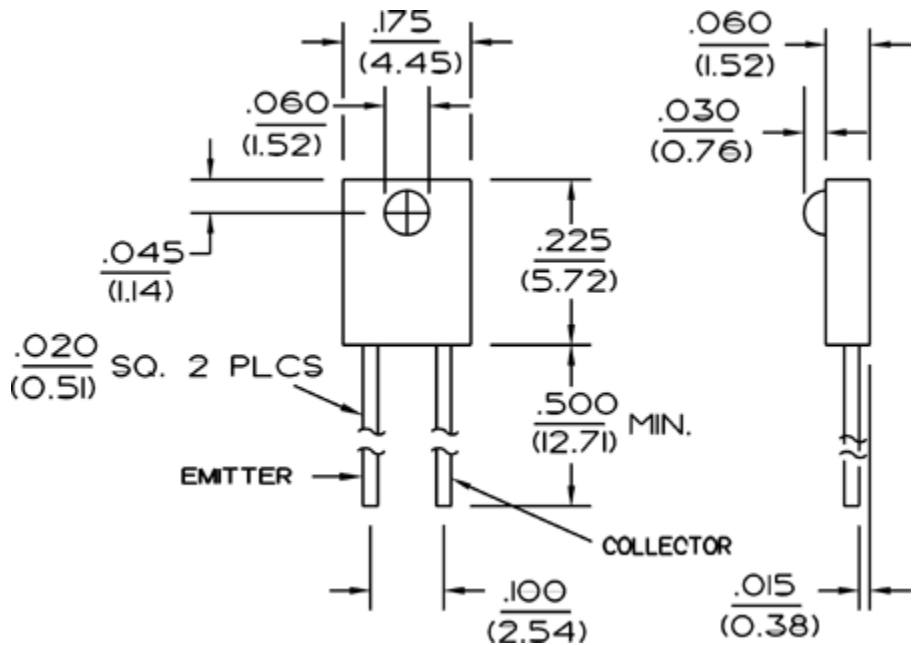
SDP Series Silicon PhotoTransistor, Side-looking Plastic Package

Product Specifications	
Product Type	IR Component
Angular Response (Degree)	50
Light Current Minimum	1.80 mA
Light Current Maximum	3.60 mA
Package Style	Side-Looking
Package Components	Plastic
Package Color	Clear
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-Emitter Breakdown Voltage	30 V
Emitter-Collector Breakdown Voltage	5 V
Collector-Emitter Saturation Voltage	0.4 V
Comment	The radiation source is a tungsten lamp operating at a color temperature of 2870°K.
Availability	Global
Product Name	Phototransistor

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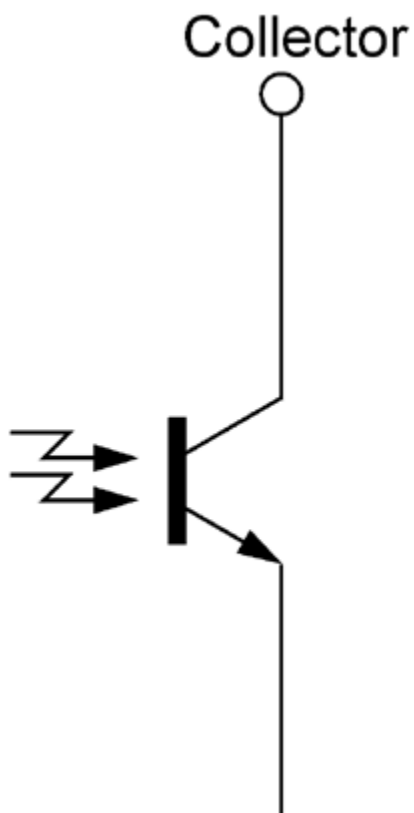
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Emitter

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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.

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SDP8406

Silicon Phototransistor

SWITCHING TIME TEST CIRCUIT

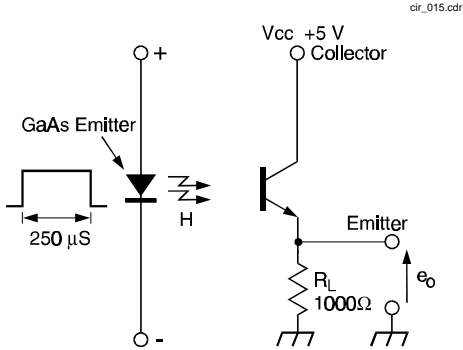


Fig. 1 Responsivity vs Angular Displacement

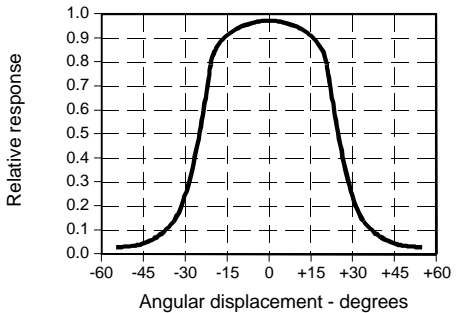
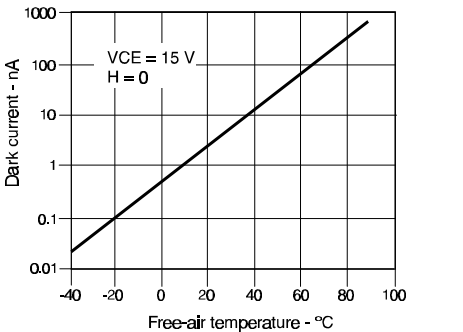


Fig. 3 Dark Current vs Temperature



SWITCHING WAVEFORM

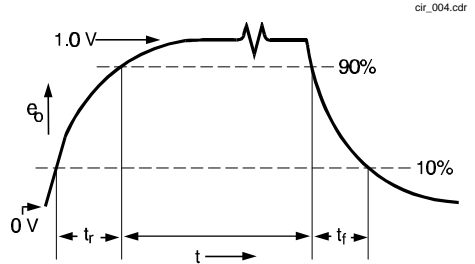


Fig. 2 Collector Current vs Ambient Temperature

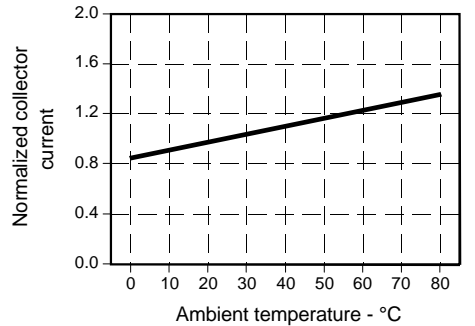
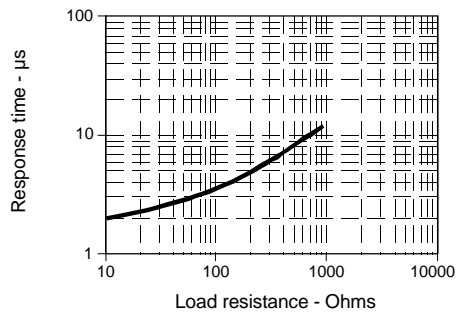


Fig. 4 Non-Saturated Switching Time vs Load Resistance



SDP8406

Silicon Phototransistor

Fig. 5 Spectral Responsivity

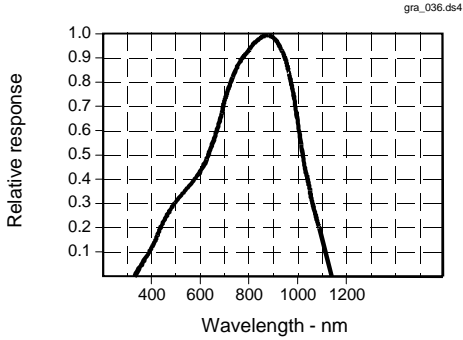
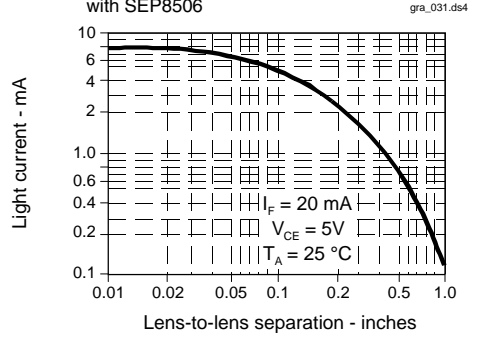


Fig. 6 Coupling Characteristics with SEP8506



All Performance Curves Show Typical Values