

# Sun sensor



S8369

## Sunlight sensor suitable for automotive use

The S8369 is a sun sensor assembled with a snap-in connector. The light input section is fitted with a cover having a wide angle directivity needed in sunlight sensors for automobile air conditioners. The S8369 is also suitable for inexpensive devices for measuring sunlight level.

### Features

- High reliability for automotive applications
- Wide angle directivity suitable as a sunlight sensor for automotive air conditioners
- Cover shape was designed for easy installation on the dash board.
- Connector and holder integrated into one piece

### Applications

- Sunlight sensor for vehicle air conditioners
- Vehicle automatic lighting sensors
- Sunlight level measurement

### Absolute maximum ratings (Ta=25 °C unless otherwise noted)

Parameter	Symbol	Value	Unit
Reverse voltage	V <sub>R</sub> max	35	V
Operating temperature*	T <sub>opr</sub>	-30 to +80	°C
Storage temperature*	T <sub>stg</sub>	-40 to +110	°C

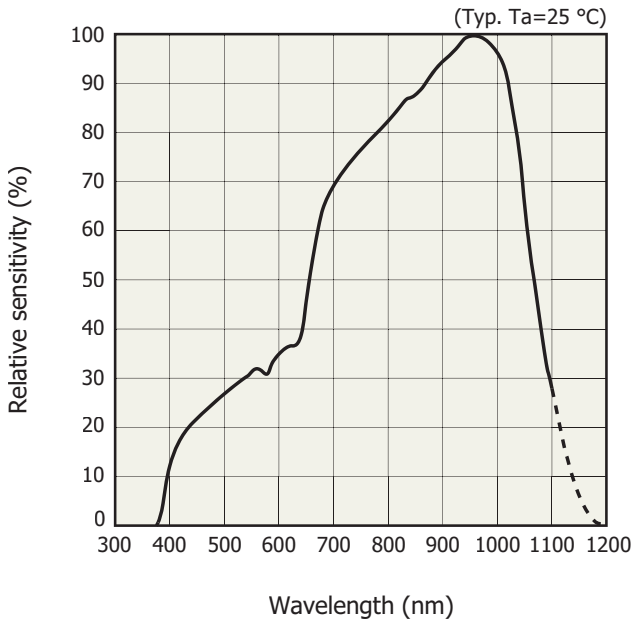
\* No dew condensation

When there is a temperature difference between a product and the surrounding area in high humidity environment, dew condensation may occur on the product surface. Dew condensation on the product may cause deterioration in characteristics and reliability.  
Note: Exceeding the absolute maximum ratings even momentarily may cause a drop in product quality. Always be sure to use the product within the absolute maximum ratings.

### Electrical and optical characteristics (Ta=25 °C)

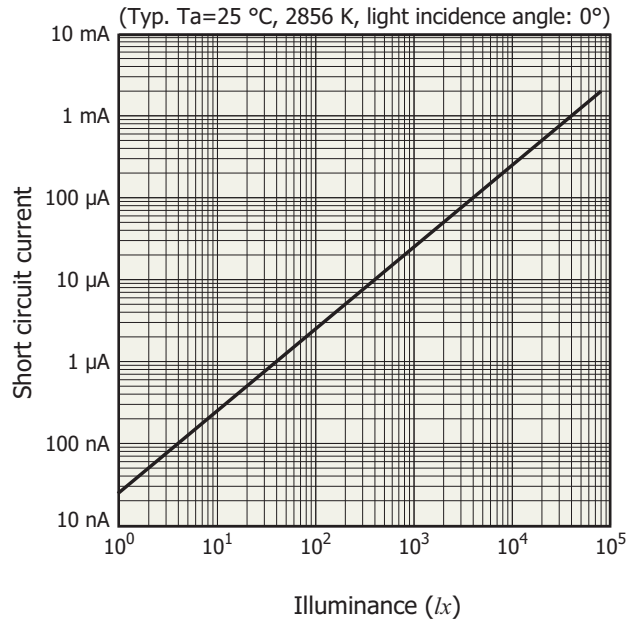
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Spectral response range	$\lambda$		-	380 to 1100	-	nm
Peak sensitivity wavelength	$\lambda_p$		-	960	-	nm
Short circuit current	I <sub>sc</sub>	2856 K, 100 lx	2.0	2.5	3.0	$\mu$ A
Dark current	I <sub>D</sub>	V <sub>R</sub> =5 V	-	-	1	$\mu$ A

**Spectral response**



KSPDB0361EA

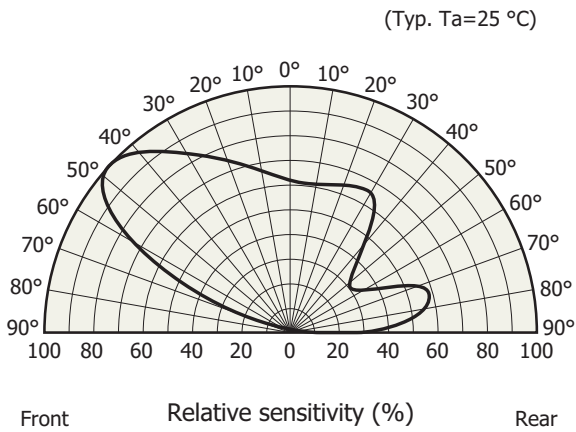
**Short circuit current vs. illuminance**



KSPDB0334EA

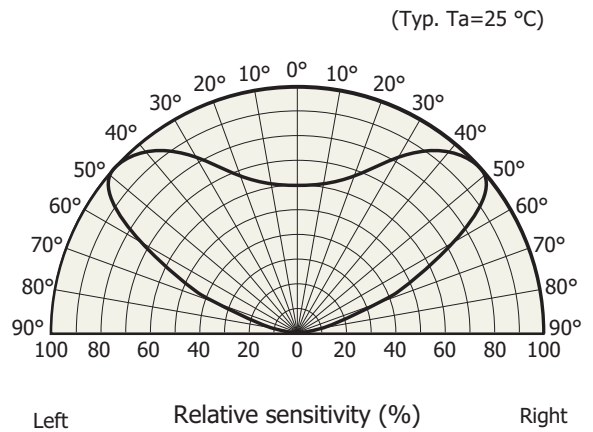
**Directivity**

Front and rear axes



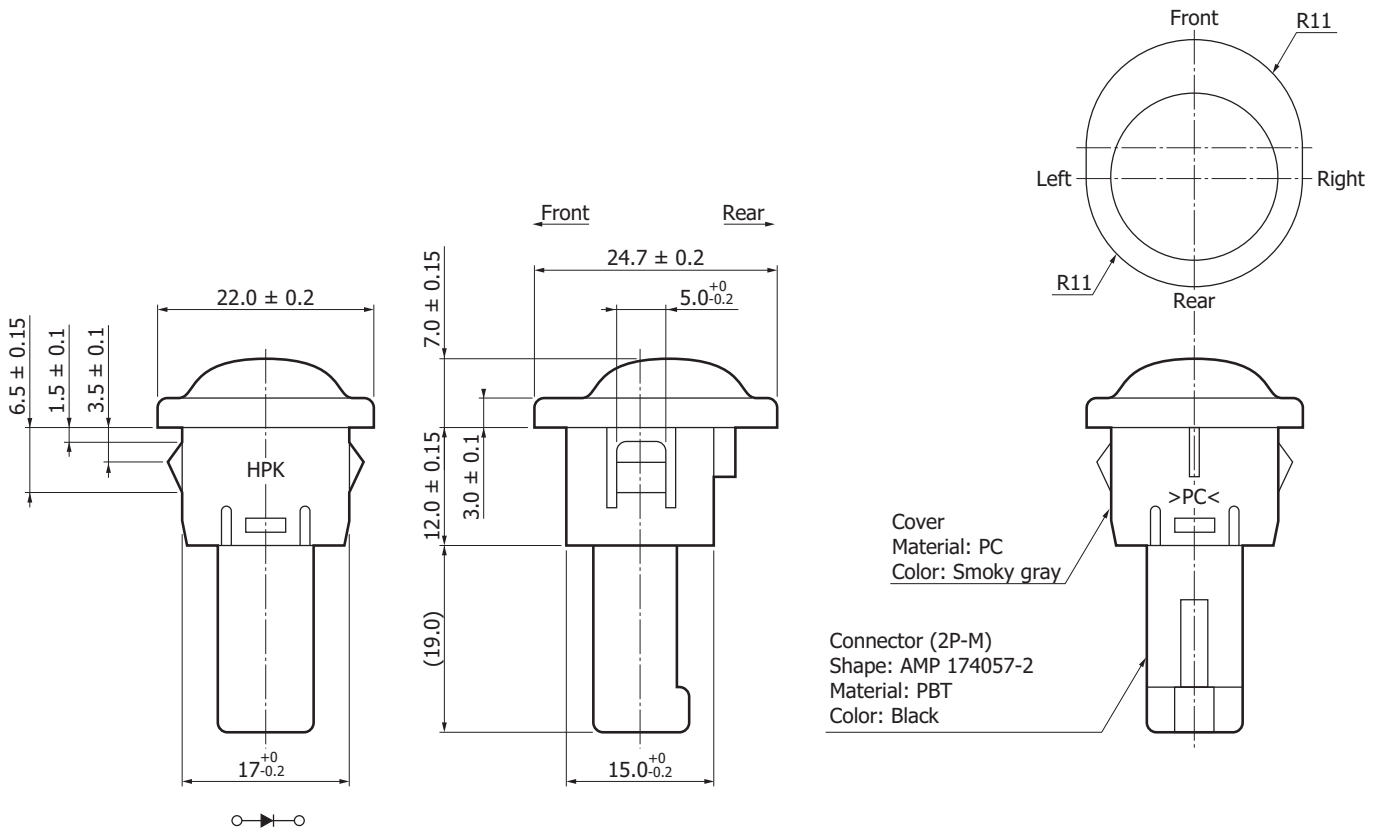
KSPDB0209EB

Left and right axes



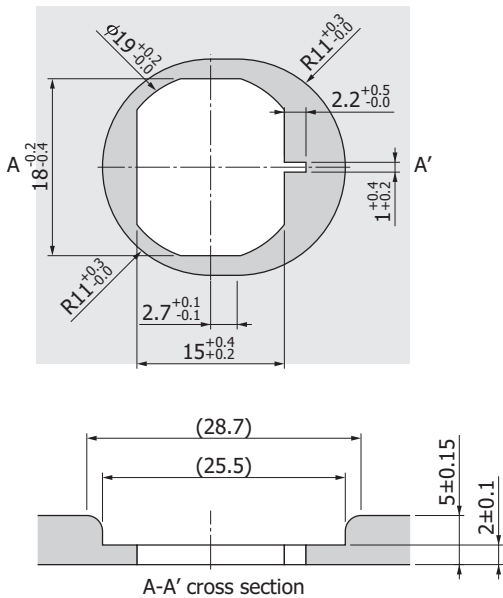
KSPDB0210EB

Dimensional outline (unit: mm)



KSPDA0150EB

Recommended installation panel (unit: mm)



KSPDA0208EA

## Related information

[www.hamamatsu.com/sp/ssd/doc\\_en.html](http://www.hamamatsu.com/sp/ssd/doc_en.html)

- Precautions
- Disclaimer

Information described in this material is current as of November 2016.

Product specifications are subject to change without prior notice due to improvements or other reasons. This document has been carefully prepared and the information contained is believed to be accurate. In rare cases, however, there may be inaccuracies such as text errors. Before using these products, always contact us for the delivery specification sheet to check the latest specifications.

The product warranty is valid for one year after delivery and is limited to product repair or replacement for defects discovered and reported to us within that one year period. However, even if within the warranty period we accept absolutely no liability for any loss caused by natural disasters or improper product use. Copying or reprinting the contents described in this material in whole or in part is prohibited without our prior permission.

# HAMAMATSU

[www.hamamatsu.com](http://www.hamamatsu.com)

HAMAMATSU PHOTONICS K.K., Solid State Division

1126-1 Ichino-cho, Higashi-ku, Hamamatsu City, 435-8558 Japan, Telephone: (81) 53-434-3311, Fax: (81) 53-434-5184

U.S.A.: Hamamatsu Corporation: 360 Foothill Road, Bridgewater, N.J. 08807, U.S.A., Telephone: (1) 908-231-0960, Fax: (1) 908-231-1218

Germany: Hamamatsu Photonics Deutschland GmbH: Arzbergerstr. 10, D-82211 Herrsching am Ammersee, Germany, Telephone: (49) 8152-375-0, Fax: (49) 8152-265-8

France: Hamamatsu Photonics France S.A.R.L.: 19, Rue du Saule Trapu, Parc du Moulin de Massy, 91882 Massy Cedex, France, Telephone: 33-(1) 69 53 71 00, Fax: 33-(1) 69 53 71 10

United Kingdom: Hamamatsu Photonics UK Limited: 2 Howard Court, 10 Tewin Road, Welwyn Garden City, Hertfordshire AL7 1BW, United Kingdom, Telephone: (44) 1707-294888, Fax: (44) 1707-325777

North Europe: Hamamatsu Photonics Norden AB: Torshamnsgatan 35 16440 Kista, Sweden, Telephone: (46) 8-509-031-00, Fax: (46) 8-509-031-01

Italy: Hamamatsu Photonics Italia S.r.l.: Strada della Moia, 1 int. 6, 20020 Arese (Milano), Italy, Telephone: (39) 02-93581733, Fax: (39) 02-93581741

China: Hamamatsu Photonics (China) Co., Ltd.: B1201, Jiaming Center, No.27 Dongsanhuan Beilu, Chaoyang District, Beijing 100020, China, Telephone: (86) 10-6586-6006, Fax: (86) 10-6586-2866