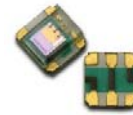


APDS-9008

Miniature Surface-Mount Ambient Light Photo Sensor



Data Sheet



Description

The APDS-9008 is a low cost analog-output ambient light photo sensor in miniature chipLED lead-free surface mount package. It consists of a spectrally suited photo sensor, which provides excellent responsivity that is close to the response of the human eyes, as show in figure 2. The APDS-9008 is ideal for applications in which the measurement of ambient light is used to control display backlighting. Mobile appliances such as the mobile phones and PDAs that draw heavy current from display backlighting will benefit from incorporating these photo sensor products in their designs by reducing power consumption significantly.

Application Support Information

The Application Engineering Group is available to assist you with the application design associated with APDS-9008 ambient light photo sensor module. You can contact them through your local sales representatives for additional details.

Features

- Excellent responsivity
 - Close responsivity to the human eye
- Miniature ChipLED Leadfree surface-mount package
 - Height – 0.55 mm
 - Width – 1.60 mm
 - Depth – 1.50 mm
- Low sensitivity variation across various light sources
- Operating temperature : -40°C to 85°C
- Vcc supply 1.6 to 5.5V
- Lead-free package, RoHS compliance
- Output linearity across wide illumination range
- High output saturation voltage

Applications

- Detection of ambient light to control display backlighting
 - Mobile devices – Mobile phones, PDAs
 - Computing devices – Notebooks, Webpads
 - Consumer devices – TVs, Video Cameras, Digital Still Camera
- Automatic Residential and Commercial Lighting Management
- Electronic Signs and Signals

Ordering Information

Part Number	Packaging Type	Package	Quantity
APDS-9008-020	Tape and Reel	6-pins Chipped package	2500

Typical Application Circuit

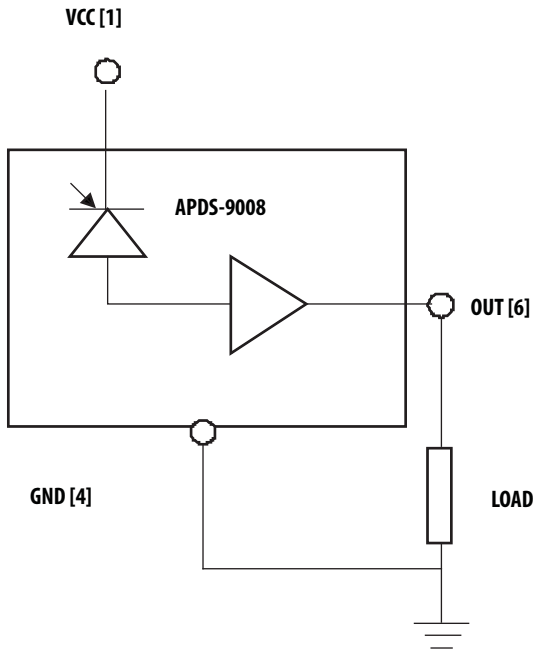


Figure 1. Typical application circuit for APDS-9008

I/O Pins Configuration Table

Pin	Symbol	Description
1	VCC	VCC
2	NC	No Connect
3	NC	No Connect
4	GND	Ground
5	NC	No Connect
6	Iout	Out

Absolute Maximum Ratings

For implementations where case to ambient thermal resistance is ≤ 50 °C/W

Parameter	Symbol	Min.	Max.	Units
Storage Temperature	T _S	-40	85	°C
Supply Voltage	V _{CC}	0	6	V

Recommended Operating Conditions

Parameter	Symbol	Min.	Max.	Units	Conditions
Operating Temperature	T _A	-40	85	°C	
Supply Voltage	V _{CC}	1.6	5.5	V	

CAUTION: It is advised that normal static precautions be taken in handling and assembly of this component to prevent damage and/or degradation which may be induced by ESD.