

Ambient Light Sensor: AC-488

Usable Light range ~900lux*



Features

- RoHS compliant and complete CdS replaceable
- Current output highly linear V.S. Light Level
- Dark-current cancellation
- Temperature stable
- Compliant RoHS Directine 2002/95/EC

*vdd 5V, Rss 1K : 900lux



Product Summary



Usable Light Range	Typ I_{PSS} (μ A)	ϕ (deg)	λ 0.5(nm)
0~900Lux	250 ($R_{ss}=10K$)	120	400 to 1,100

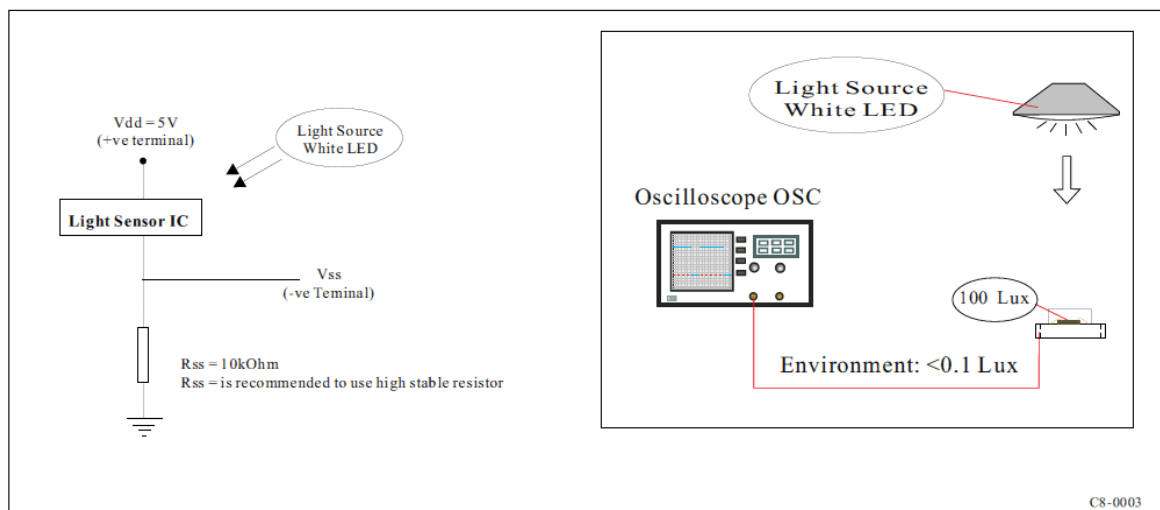
Ordering Information

Packaging	Each Bulk	MOQ	Package Form
Bulk	1,000pcs	1,000pcs	5mm (T 1 3/4)

Absolute Maximum Ratings ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Rating	Unit
Permissible Power Dissipation	P	Internally limited	mW
Operating Temperature	T_o	-20 ~ +65	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40 ~ +100	$^\circ\text{C}$

Test Circuit



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Type Dedicated Characteristics

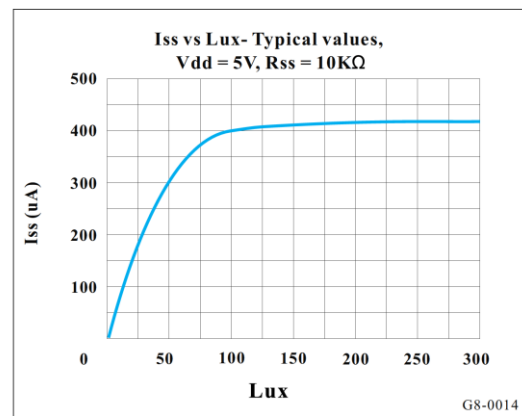
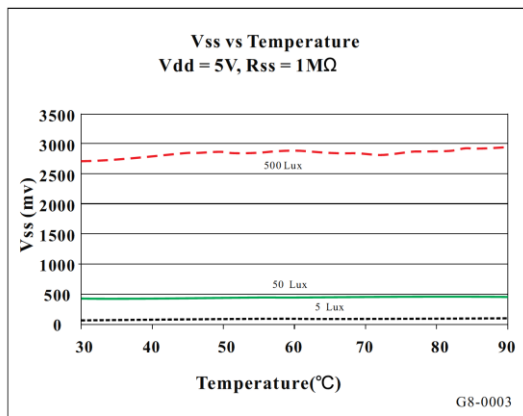
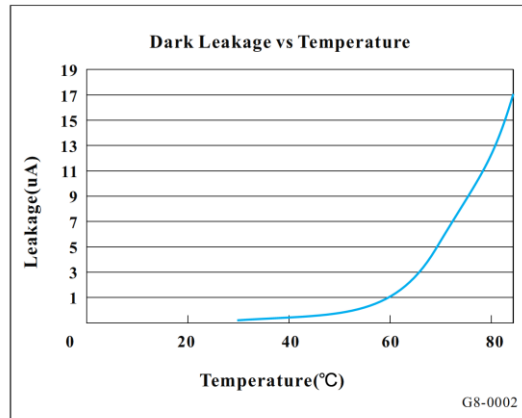
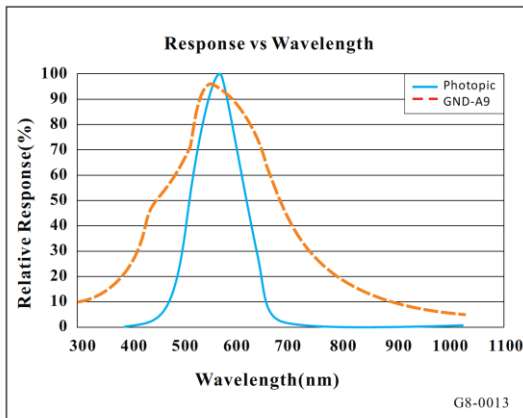
Parameter	Test Condition	Symbol	Typ	Unit
Light Current	White LED 100 Lux	I_{SS}	400	μA

Electrical Specification

The following parameters apply over the operating temperature -40°C to +85°C, and with $R_{SS}=10K$ Ohms, $V_{dd}=5V$, as per C8-0003

Parameter	Symbol	Type	Unit	Test Conditions
Supply Input Voltage	V_{dd}	2.4~12	V	
Peak Spectral Response	λ_{PR}	520	nm	* $V_{DD}=5V$, $E_V = 5Lux$
Light Current (+/-50%)	I_{SS}	400	μA	$V_{DD}=5V$, $E_V = 100Lux$
Dark Current	$I_{ceo}(\text{dark})$	1.5	μA	0Lux, $T_a=65^\circ C$
Switching Time	Rise Time	T_r	15	$V_{ce}=2V$, $I_c=2mA$, $R_{SS}=100k\Omega$
	Fall Time	T_f	15	

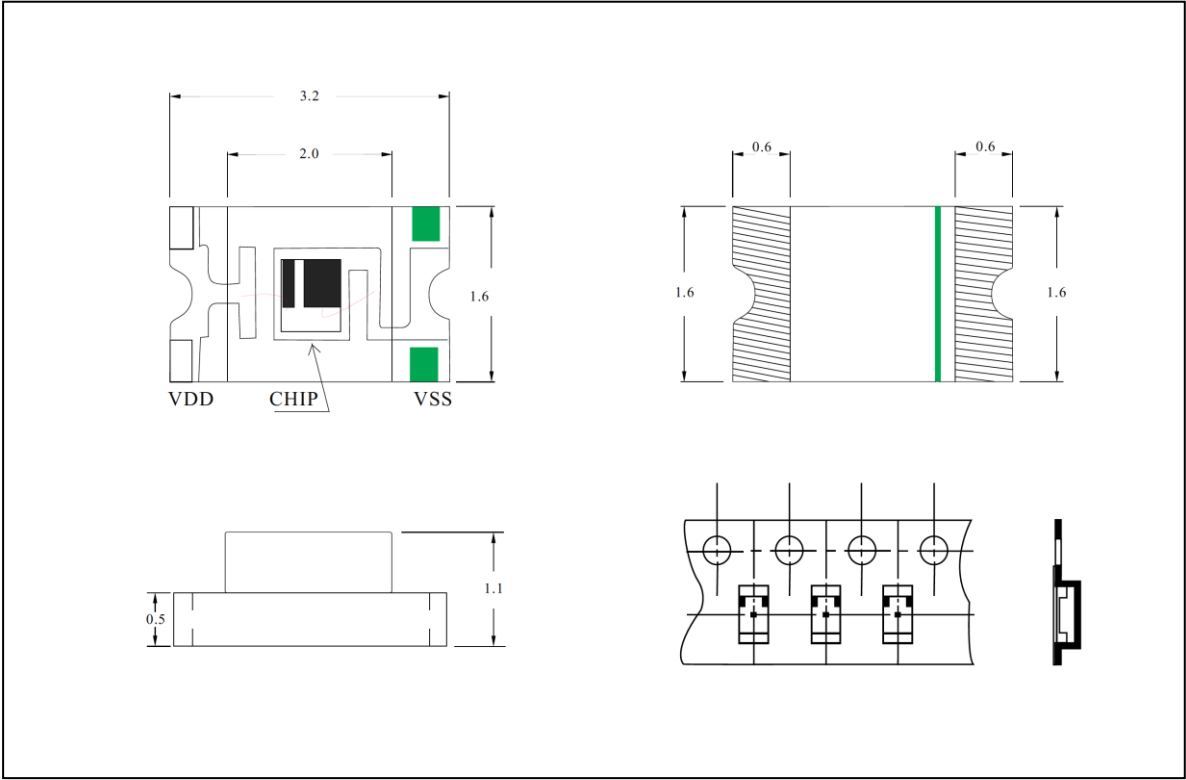
Charts



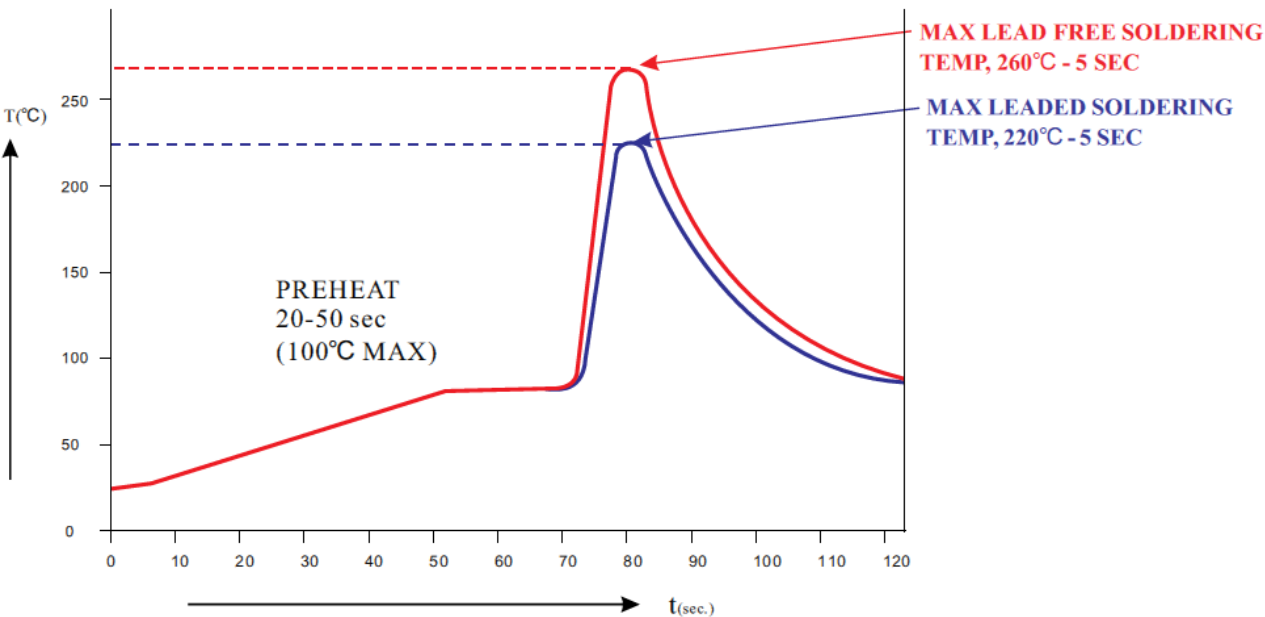
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■ Dimensions



■ Wave Solder



G8-0007

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Recommended Lead Free Wave Soldering Profile

Preheat Temperature: 100°C Max

Peak Temperature: 260°C Max.

Preheat Time: 20~50 Seconds

Solder Time Above 217°C: 5 Seconds Max.

Note: Turn Off top heater at preheat to prevent the lamp body directly exposed to the heat source.

■ Material Category Policy

We declare that this part is RoHS 2002/95/EC compliant, based on our understanding of the directive.

This part is manufactured where the banned substances would not be used during processing.