

Features:

- RoHS compliant and complete CdS replaceable
- High IR rejection
- Current output highly linear VS light level
- Near human eye photopic response
- Integrated high gain photo-current amplifier
- Dark-current cancellation
- Temperature stable

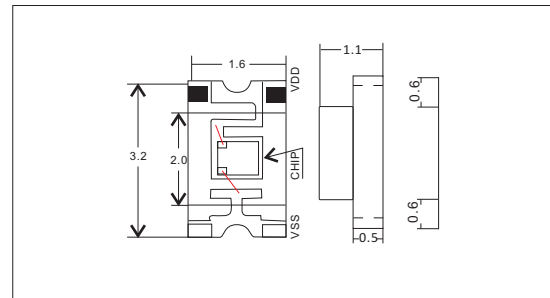
Applications:

- Dawn/dusk sensing
- Surveillance Camera
- Display backlighting in LCD monitors
- Street light

Absolute Maximum Ratings:

Parameter	Rating	Unit
Supply Input Voltage (Vdd)	-0.3 to 10	V
Supply Current	Internally Limited	mA
Operating Temperature, To	-40 to +85	°C
Storage Temperature, Ts	-40 to +100	°C

Package Outline in (mm)

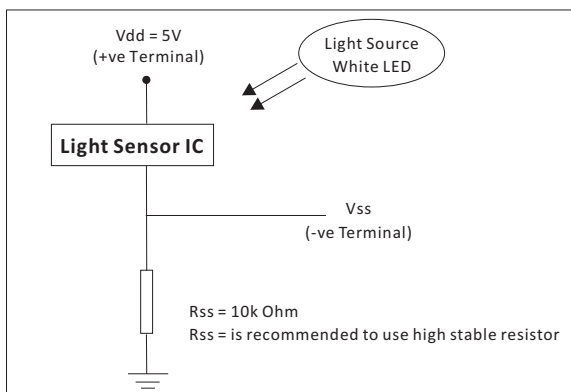


Electrical Specification:

The following parameters apply over the operating temperature -40°C to +85°C, and with Rss=10K Ohms, Vdd=5V, as per Figure 1

Parameter	Symbol	Min	Typ	Max	Units	Test Conditions
Infra Red Response			1	5	% of peak	900 nm
Minimum Operational Voltage	Vdd-Vss		2.5		v	I _{ss} =250uA
			1.5		v	I _{ss} =50uA
Light Current +/- 50%	I _{ss}	150	300	450	uA	2000Lux
		75	150	225	uA	1000Lux
		7.5	15	22.5	uA	100Lux
Dark Current	I (dark)		<1		nA	0 Lux, Ta=25°C
			150		nA	0 Lux, Ta=85°C
Gain Linearity		-10		10	%	
Peak Spectral Response			520		nm	
Sensitive Area			0.054		mm ²	

Figure 1: Test Circuit



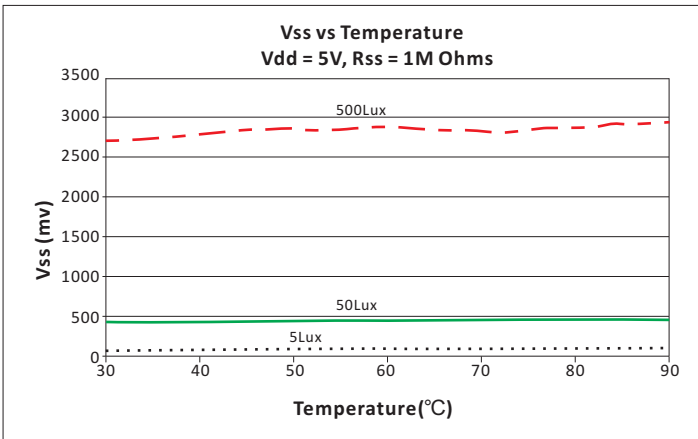
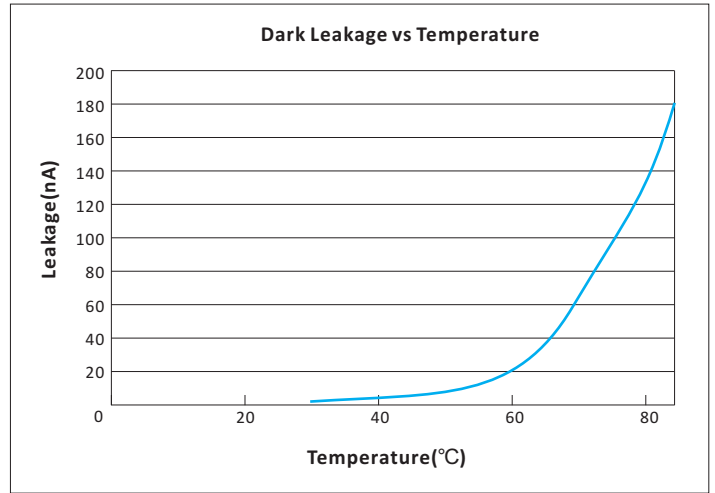
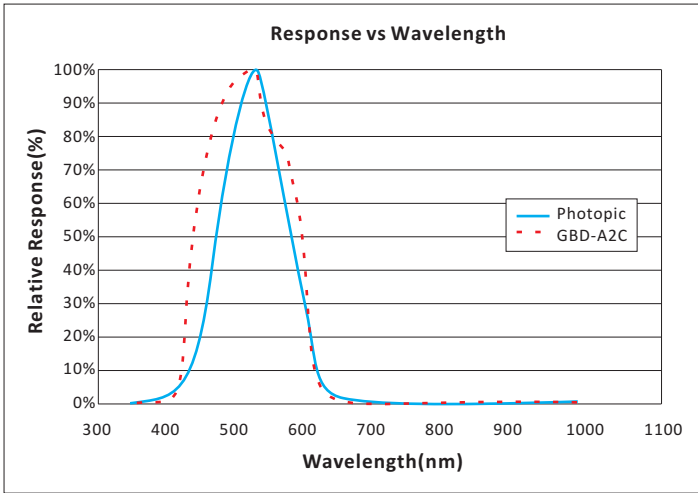


Visible Light Sensor

Usable light range 0 ~ 6000 Lux

Surface Mount
GBD-A2C
(0.15 uA per Lux)

Diagram:



Note that with a lower Rss resistance, the linear light response range can be greatly increased up to 6000 Lux.

