

# Visible Radiant Optical Sensor /Data Sheet

# BCS2015G1

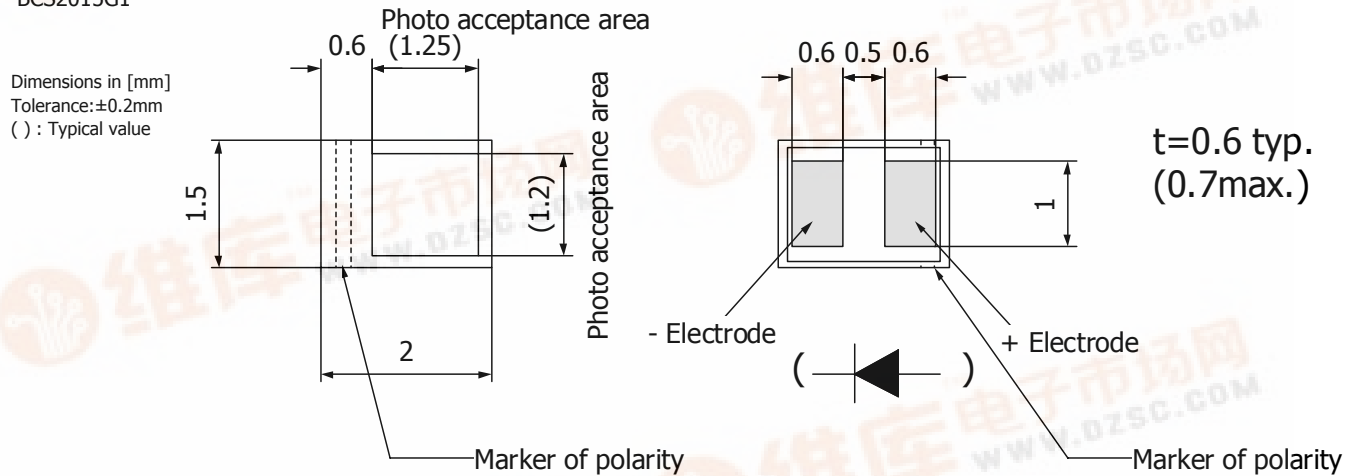
BCS2015G1 is the photodiode which uses an amorphous silicone semiconductor on the glass substrate. It is the most suitable for Brightness Adjustment, Control of the Lighting systems. BCS2015G1 is for surface mounthing.

### Features

- Highly receptive to visible light but not receptive to infrared light (close to Human eye visibility).
- Accurate illumination measurement can be taken without the use of an infrared filter.  
( Phototransistors and photodiodes that use crystal- silicon semiconductors typically require this filtering.)
- Surface mounting can be used in lead- free reflow soldering.
- Lead- free, Cadmium-free

### Shapes and dimension

Glass Substrate  
BCS2015G1



### Electrical Characteristic

Item	Temperature= 25deg.C			
	Units	Min.	Typ.	Max.
Output current 100Lux*1 VR=0V (Short Circuit Current)	μA	0.07	0.10	0.13
Output current 100Lux*1 VR=5V	μA	0.08	0.12	0.16
Dark current VR=0.05V	pA	---	---	10

\*Initial value

### Absolute Maximum Ratings

Item	Temperature= 25deg.C	
	Units	Value
Reverse bias voltage: VR	V	10
Non-reverse bias current	mA	2

### Optical Characteristic

Item	Temperature= 25deg.C	
	Units	Value
Spectral sensivty area	nm	350 to 750
Peak of sensivity	nm	580±20

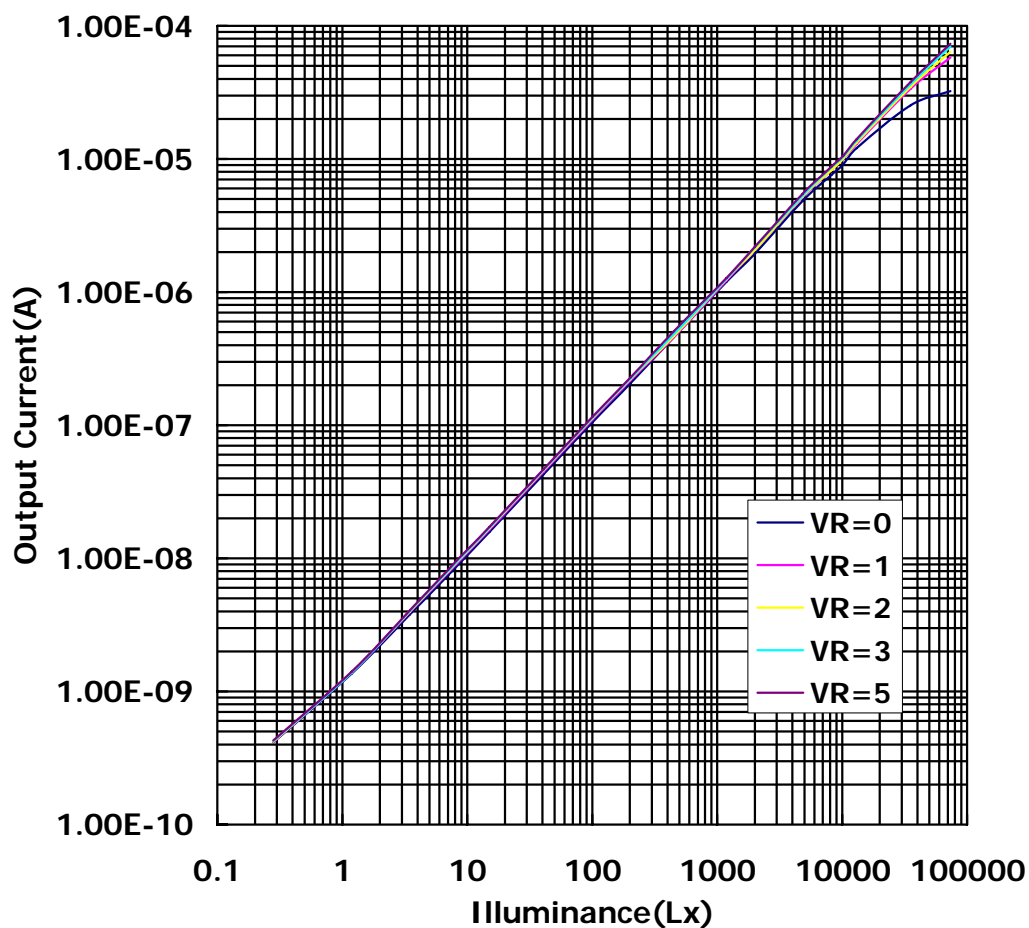
### Others

Item	Value	
	Units	Value
Operating temperature	deg. C	-20 to 85
Keep and transfer temperature	deg. C	-40 to 85
Dimensions	mm	2.0×1.5×0.6t
Weight	g	0.004

\*1 White Fluor Light (color temperature=4200K)

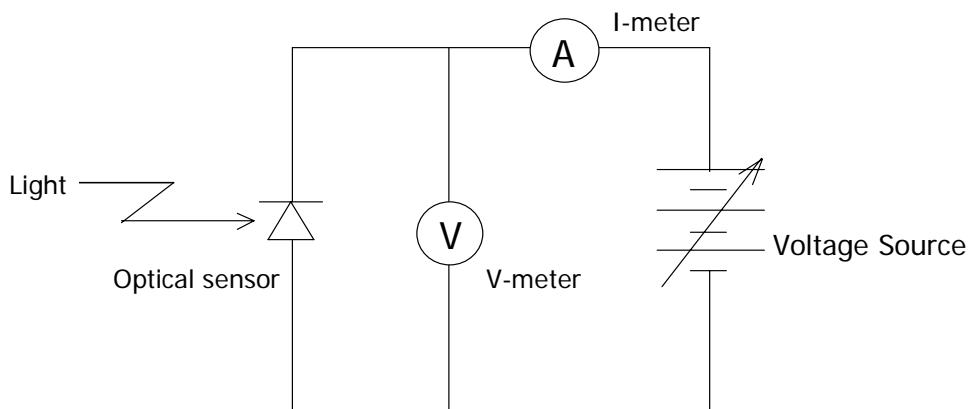


### Output characteristic(typical):BCS2015G1

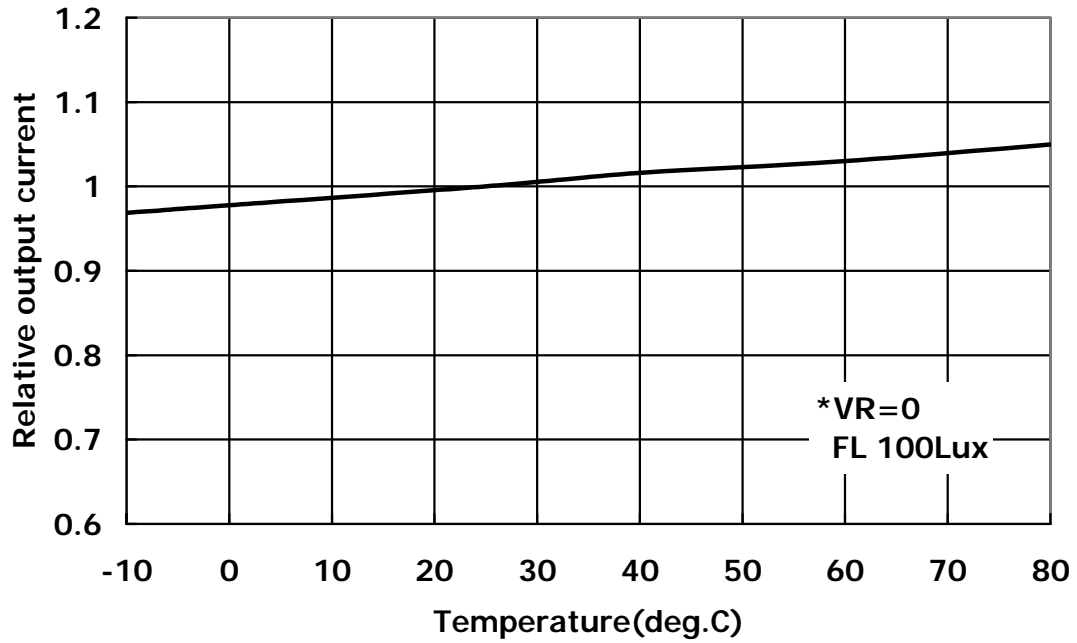


\*VR:Reverse bias voltage

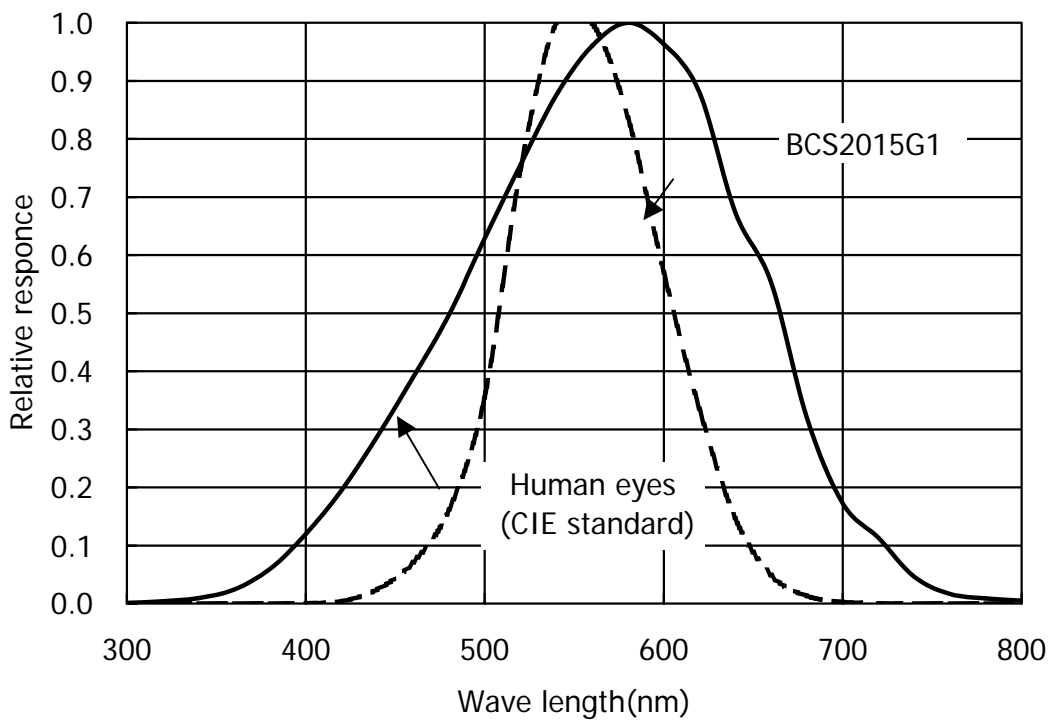
### Measuring circuit diagram



Temperature stability of output current:BCS2015G1 (typical)

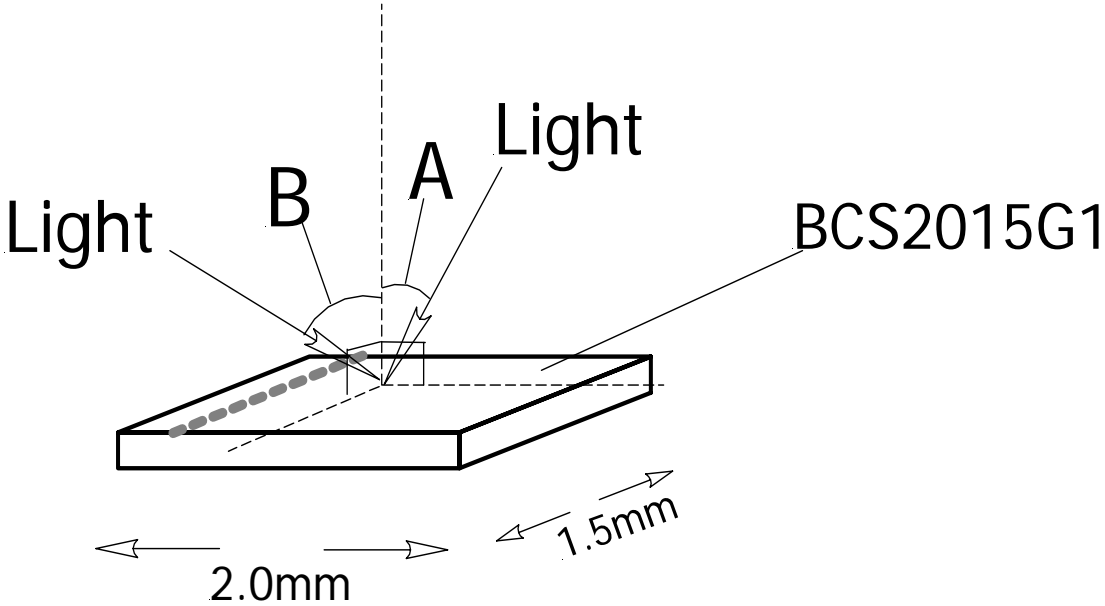
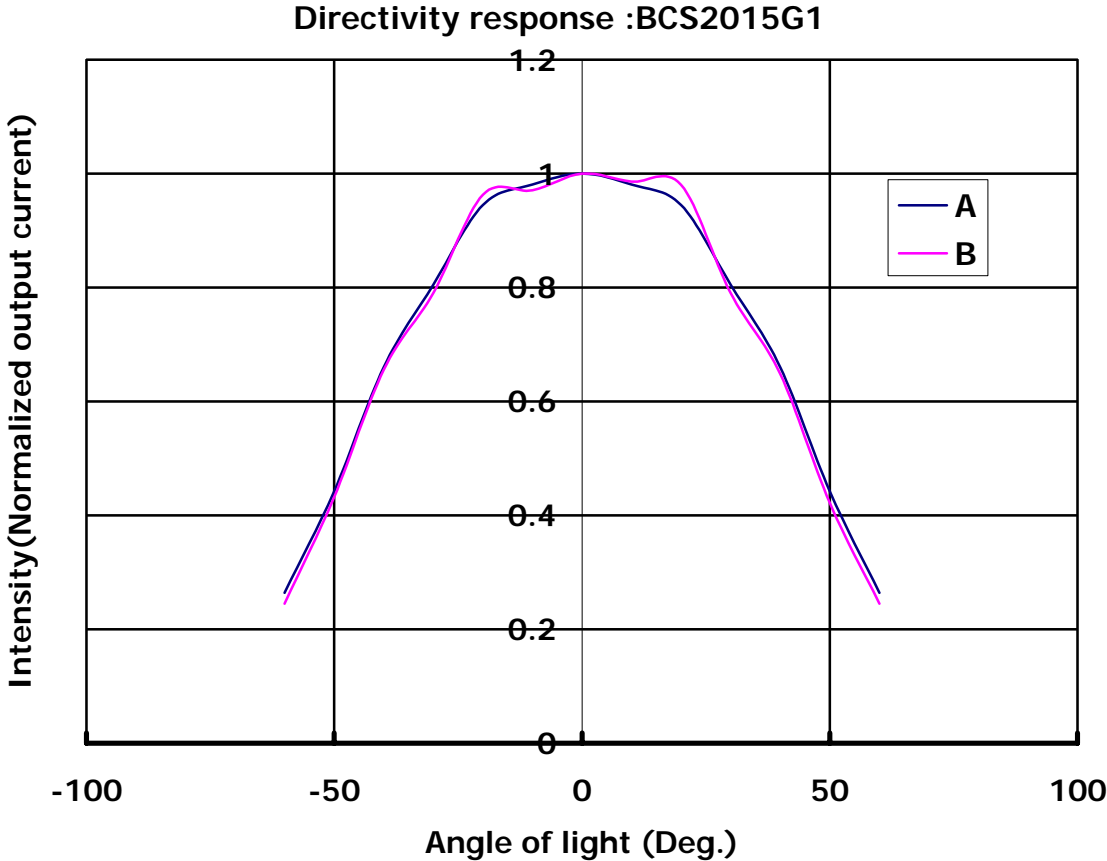


Spectral response:BCS2015G1 (typical)



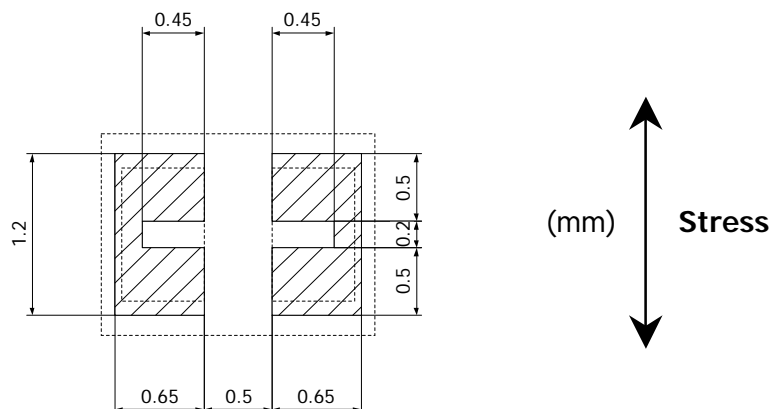
# Light directivity response : BCS2015G1

Light source/ White fluor lamp  
Distance of light source/ 60cm

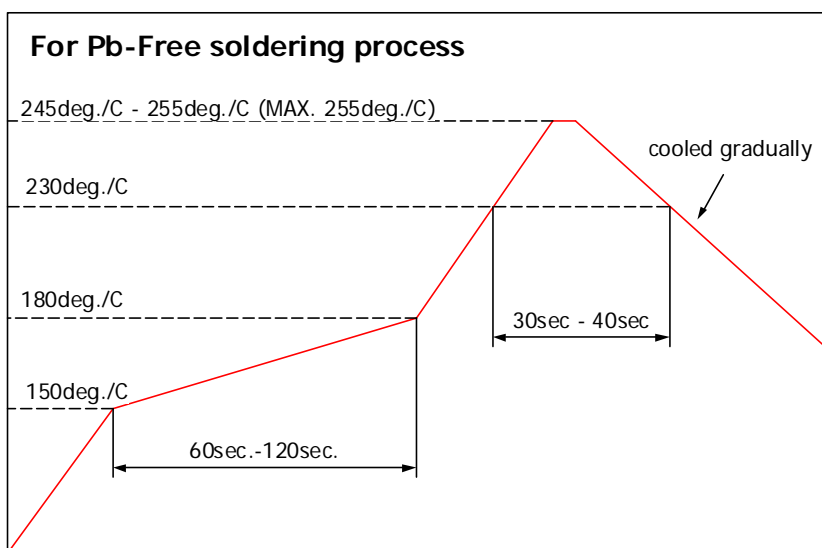


## Recommended land pattern

Recommended land pattern is shown in Fig. Please arrange a land in the direction as shown in Fig. to the direction of curvature as the result of heat stress by reflow and/or physical stress.



## Recommended reflow heat condition



\*Pb Free Solder is SnAgCu.

