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).
- $\bullet$  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

#### **Application**

- Brightness control for LCD, EL and CRT
- Brightness control for Keypads (e. g. Mobile Phones)
- Positioning scanline for Rear Projecton TV
- Exposure adjust for Compact Camera
- Sub exposure adjust for Digital Camera

BCS2015G1	Photo acceptance ar 0.6 (1.25)	rea 0.6 0.5 0.6	
Dimensions in [mm] Tolerance:±0.2mm ( ): Typical value	Photo acceptance area	- Electrode + Electro	t=0.6 typ. (0.7max.)
	└──Marker of po	plarity	—Marker of polarity

Electrical Characterisic			Temperatu	re= 25deg.	С	
Item		Value				
			Units	Min.	Тур.	Max.
Output current	100Lux*1	VR=0V (Short Circuit Current)	μΑ	0.07	0.10	0.13
Output current	100Lux*1	VR=5V	μΑ	0.08	0.12	0.16
Dark current	VR=0.05V		pА			10

\*Initial value

Absolute Maximum Ratings Temperature= 25deg.C

Absolute waximum katings		remperature= 250	.eg
Item	Value		
	Units		
Reverse biass voltage: VR	V	10	
Non-reverse biass current	mA	2	

 Optical Characteristic
 Temperature= 25deg.C

 Item
 Value

 Units
 Units

 Spectral sensivty area
 nm
 350 to 750

nm

580±20

Ωŧ	h	Δ	r

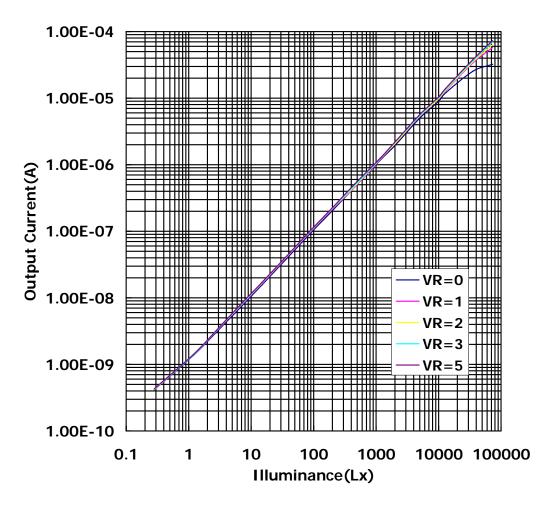
Peak of sensivity

Others				
Item		Value		
	Units			
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		

<sup>\*1</sup> White Fluor Light (color temperature=4200K)

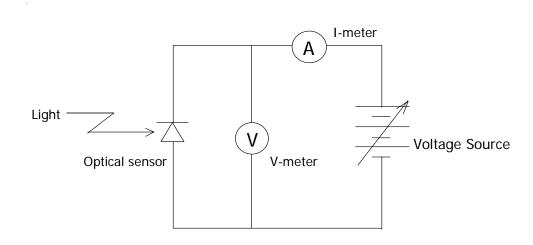


## Output characteristic(typical):BCS2015G1



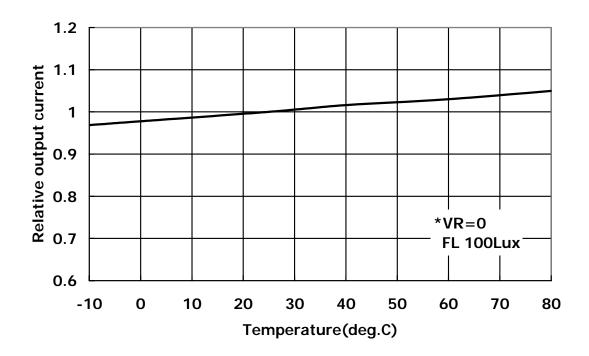
\*VR:Reverse biass voltage

#### Measuring circuit diagram

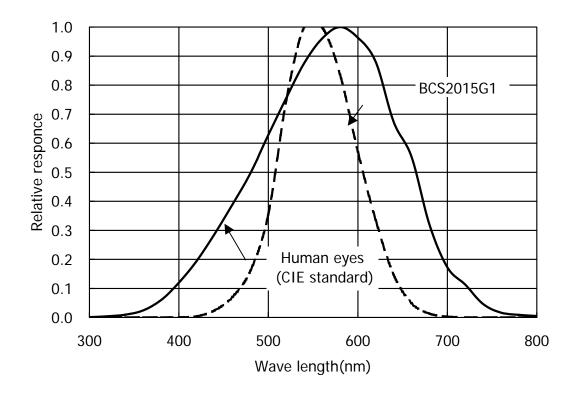




## Temperature stability of output current:BCS2015G1 (typical)



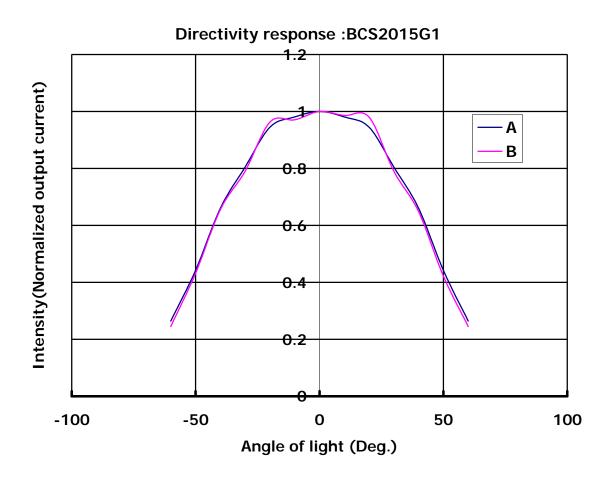
# Spectral response:BCS2015G1 (typical)

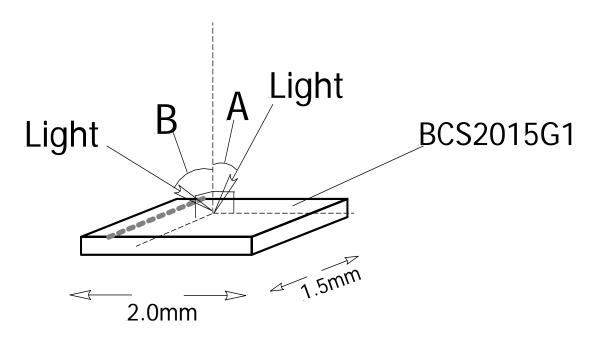




## Light directivity response: BCS2015G1

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

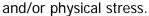


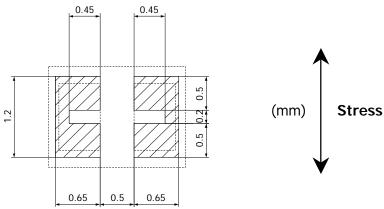




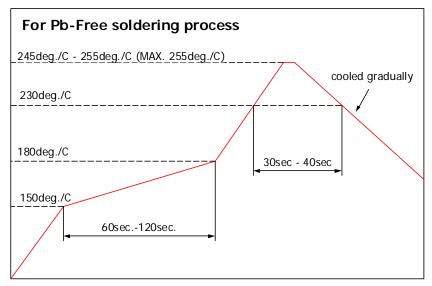
### Recommended land pattern

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





### **Recommanded reflow heat condition**



\*Pb Flee Solder is SnAgCu.

