

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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BCS2015H1 is the photodiode which uses an amorphous silicone semiconductor on the plastic substrate. It is the most suitable for Brightness Adjustment, Control of the Lighting systems, and some light sensing. BCS2015H1 is for conventional surface mounthing.

#### **Features**

- Ultra Low profile(Iless than 0.3mm thikness)
- 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.)

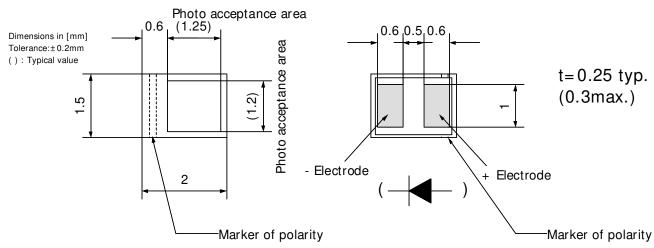
• Surface mounting can be used in lead- free reflow soldering.

### Shapes and dimension

Glass.Substrate BCS2015H1

#### **Application**

- · Brightness control for LCD, EL and CRT
- Brightness control for Keypads (e. g. Mobile Phones)
- Swich for IC card or other thin set.
- · Exposure adjust for Compact Camera
- Sub exposure adjust for Digital Camera



Electrical Characterisic			Temperature= 25deg.C				
Item			Value				
				Units	Min.	Тур.	Max.
Output current	100Lux* 1	VR= 0V (Short	Circuit Current)	μΑ	0.06	0.09	0.12
Output current	100Lux* 1	VR=5V		μΑ	0.07	0.10	0.13
Dark current	VR= 0.5V			pА			10

\* Initial value

Absolute Maximum Ratings Temperature= 25d			
Item		Value	ĺ
	Units		
Reverse biass voltage: VR	V	6	ĺ
Non-reverse biass current	mA	1	ĺ

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

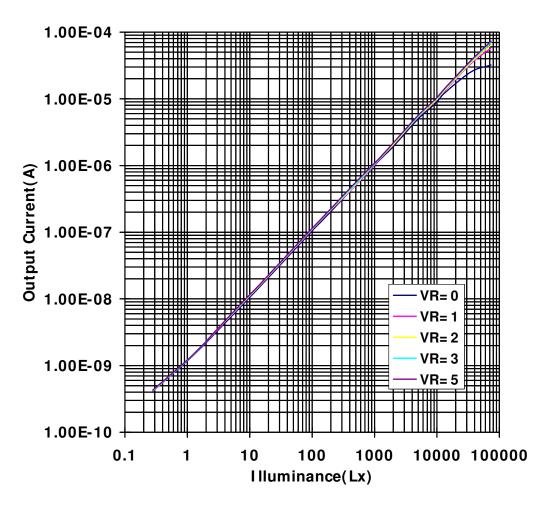
#### Others

Others				
Item		Value		
	Units	1		
Operating temperature	deg. C	-20 to 85		
Keep and transfer temperature	deg. C	-40 to 85		
Dimensions	mm	2.0×1.5×0.25t (0.3t Max.)		
Weight	g	0.004		

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

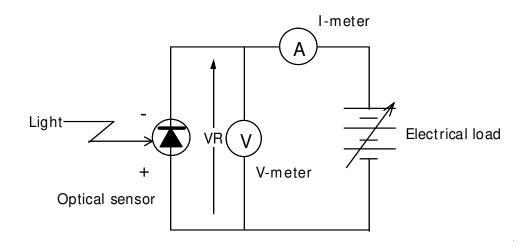


## Output characteristic(typical):BCS2015H1



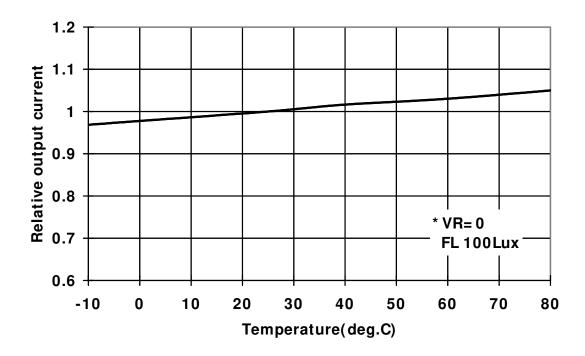
\* VR:Reverse biass voltage

### Measuring circuit diagram

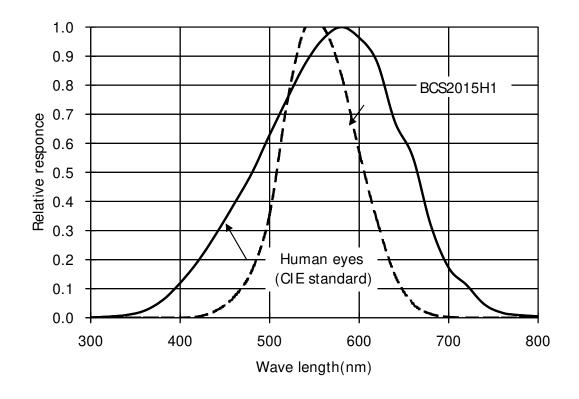




## Temperature stability of output current:BCS2015H1 (typical)



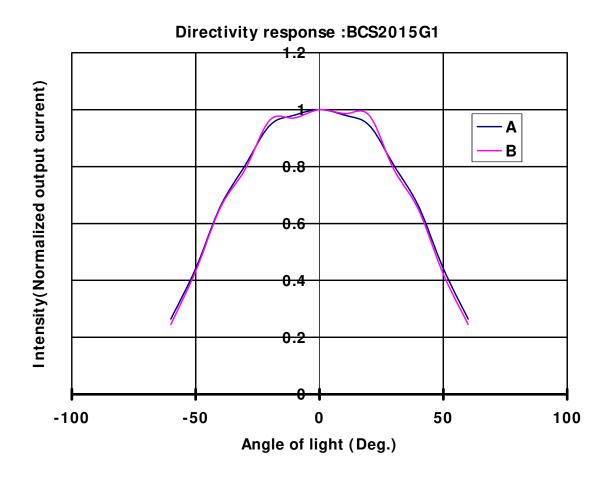
# Spectral response:BCS2015G1 (typical)

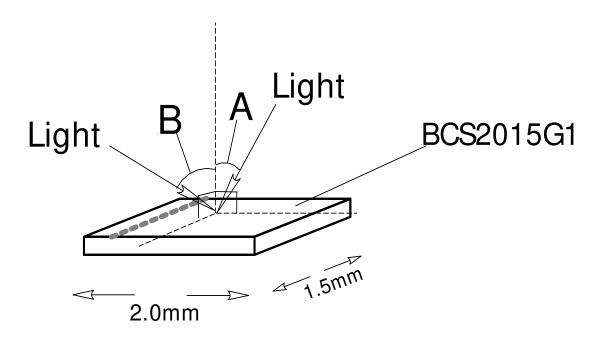




## Light directivity response: BCS2015G1

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

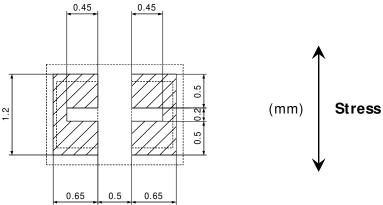




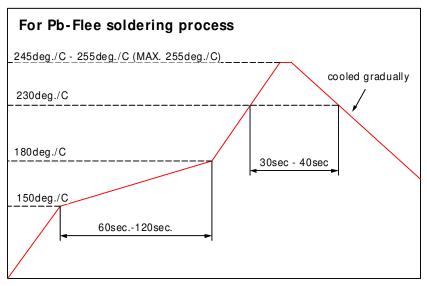


### Recommended land pattern

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.



### Recommanded reflow heat condition



\* Pb Flee Solder is SnAgCu.

