Visible Radiant Optical Sensor /Data Sheet

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

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



Electrical Characterisic			Temperature= 25deg.C				
Item			Value				
			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		pА			10	
						*Initia	l valı

Absolute Maximum Ratings Temperatur			eg.C
Item	Value		
	Units		
Reverse biass voltage: VR	V	10	
Non-reverse biass current	mA	2	

Optical Characteristic		Temperature= 25d	leg.C
Item	Item Value		1
	Units		1
Spectral sensivty area	nm	350 to 750	1
Peak of sensivity	nm	580±20	1

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		

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

51101



⊘TDK₀

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 and/or physical stress.



Recommanded reflow heat condition



*Pb Flee Solder is SnAgCu.

