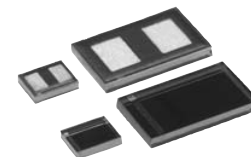


Visible Radiant Optical Sensors

Photo-diode Type BCS2015G1/5030G1 Series

Conformity to RoHS Directive

The surface-mount type optical sensor that is highly sensitive only to ambient light with an amorphous silicone semiconductor photo-diode on the glass substrate.



FEATURES

- Highly sensitive to visible light and very little sensitivity to infrared. A fewer photometry error by different light sources is available.
- The stabler temperature coefficient than photo-transistor. It is a RoHS directive conformity product and doesn't contain Cd and other hazardous products.
- A surface mount with lead-free solder is possible.

APPLICATIONS

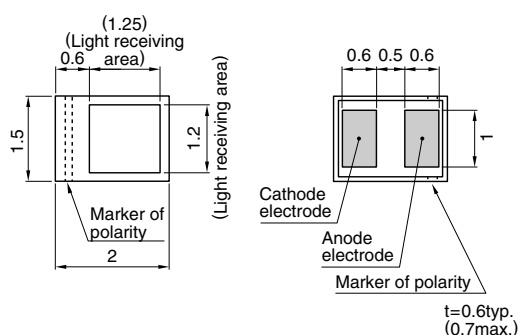
- Brightness adjustment of LCD, CRT
- Camera AE sensor (Replace for CdS cell.)
- Lighting control

ORDERING PROCESS

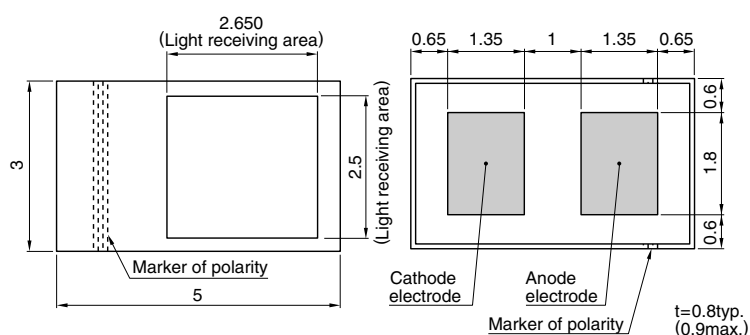
Standard part samples are available. Please contact your sales representatives for customized specification.
Regular production leadtime is about 6 weeks. Please contact your sales representatives for further details.

SHAPES AND DIMENSIONS

BCS2015G1



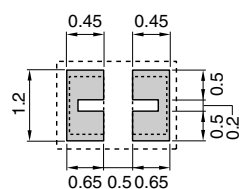
BCS5030G1



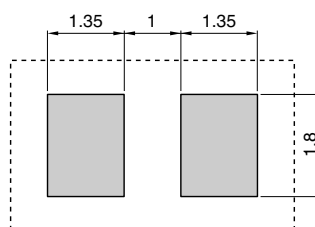
Dimensions in mm

RECOMMENDED PC BOARD PATTERN

BCS2015G1



BCS5030G1



Dimensions in mm

- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

- All specifications are subject to change without notice.

ELECTRICAL CHARACTERISTICS

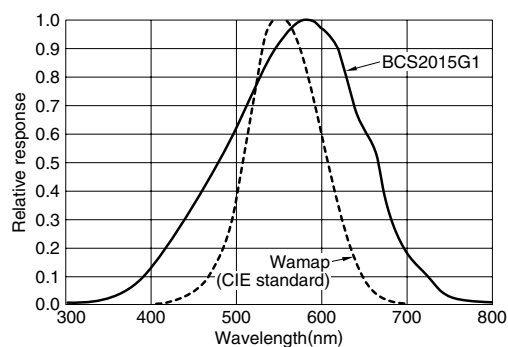
Item		BCS2015G1	BCS5030G1
Short circuit current [100Lux* Vr=0V] (μ A)	min.	0.07	0.36
	typ.	0.1	0.42
	max.	0.13	0.48
Output current [100Lux* Vr=5V] (μ A)	min.	0.08	0.37
	typ.	0.12	0.46
	max.	0.16	0.55
Dark current (pA)max.		10 [Vr=0.05V]	100 [Vr=0.5V]
Inverse voltage [Vr] (V)		10	6
Forward current (mA)		2	1
Spectral sensitivity area (nm)		350 to 750	350 to 750
Peak of sensitivity (nm)		580 \pm 20	580 \pm 20
Operating temperature range ($^{\circ}$ C)		-20 to +85	-20 to +85
Storage temperature range ($^{\circ}$ C)		-40 to +85	-40 to +85
Dimensions(mm)		2.0 \times 1.5 \times 0.6t	5.0 \times 3.0 \times 0.8t(0.9t max.)
Weight(g)		0.01	0.03

• Element temperature: 25 $^{\circ}$ C

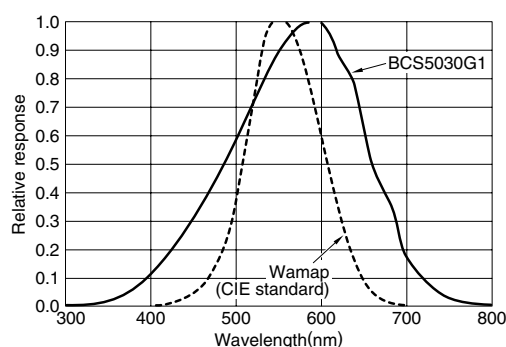
* Light source for measurement is white light fluorescent lamp.(Color temperature 4200K)

TYPICAL ELECTRICAL CHARACTERISTICS SPECTRAL RESPONSE CHARACTERISTICS

BCS2015G1

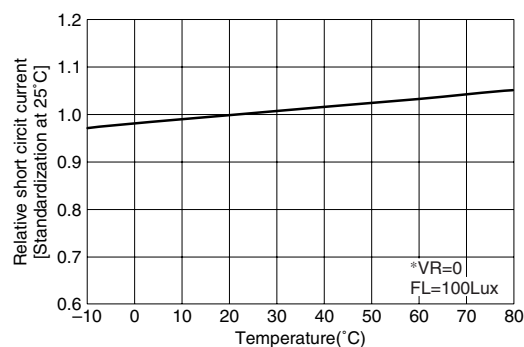


BCS5030G1

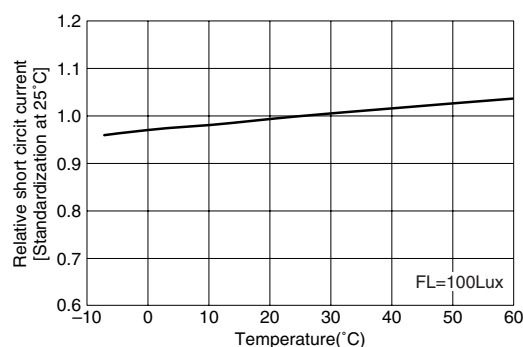


TEMPERATURE STABILITY OF SHORT CIRCUIT CURRENT

BCS2015G1



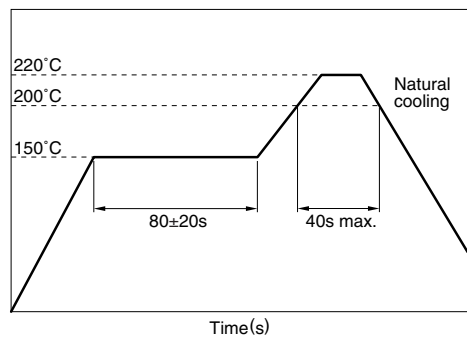
BCS5030G1



• All specifications are subject to change without notice.

RECOMMENDED SOLDERING CONDITIONS(REFLOW)

- A lead-free solder of the following diagrammatic chart; in the case of SnAg system. Lead-free solder has a TDK recommendation brand. In the details, please ask us.

EUTECTIC SOLDERING**LEAD-FREE**