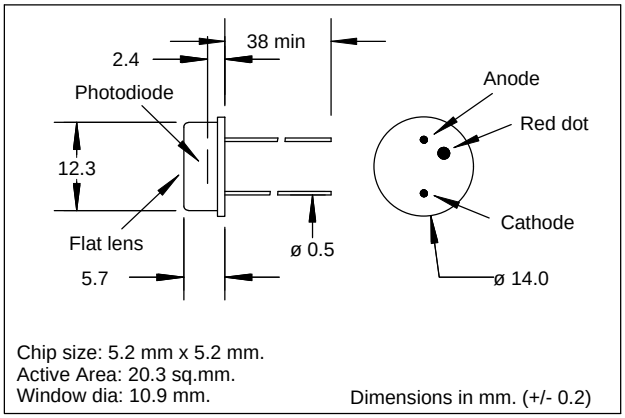
SLD-65HFBG1

Integral Infrared Rejection Filter
Silicon Planar Photodiode

Features

- Low dark leakage current
- High sensitivity
- Low Capacitance
- TO-8 Hermetic packaging
- Linear response vs irradiance
- High reliability
- IR blocking Filter
- Multiple dark current ranges available

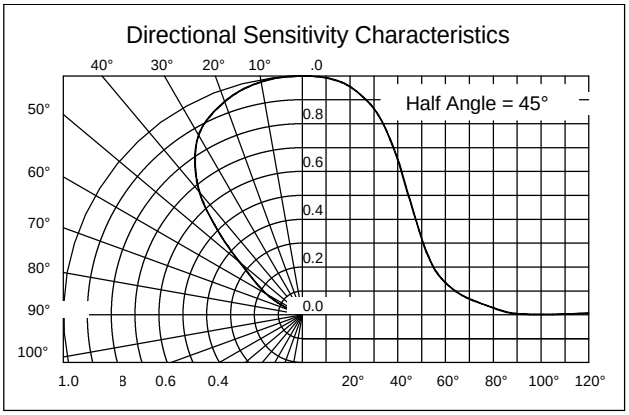


Chip size: 5.2 mm x 5.2 mm.
Active Area: 20.3 sq.mm.
Window dia: 10.9 mm.

Dimensions in mm. (+/- 0.2)

Description

This family of planar, passivated photodiodes is designed for photovoltaic and photoconductive applications. The high sensitivity and low dark currents make these devices ideal for low irradiance detection. As well, their low capacitance and high speed make them useful for fast rise time applications. These detectors are housed in a TO-8 package. Internal blue-green filter blocks infrared radiation.



Absolute Maximum Ratings

Storage Temperature	-25 to + 85°C
Operating Temperature	-25 to + 85°C
Soldering Temperature (1)	260°C

Notes: (1) >2 mm from case for <5 sec.
(2) Ee = source @ 2854 °K
(3) Ee = source @ λ=580 nm

Electrical Characteristics (T_A=25°C unless otherwise noted)

Symbol	Parameter	MIN	TYP	MAX	UNITS	TEST CONDITIONS
I_{SC}	Short Circuit Current	60	100		µA	Ee = 25mW/cm^2 (2)
V_{OC}	Open Circuit Voltage		0.41		V	Ee = 25mW/cm^2 (2)
I_D	Reverse Dark Current:					
	SLD-65HFBG1A			100	nA	V_R = 100 mV, Ee=0
	SLD-65HFBG1B			100	nA	V_R = 5 V, Ee=0
	SLD-65HFBG1C			20	nA	V_R = 5 V, Ee=0
	SLD-65HFBG1D			5	nA	V_R = 5 V, Ee=0
	SLD-65HFBG1E			1	nA	V_R = 5 V, Ee=0
C_J	Junction Capacitance		380		pf	V = 0V, Ee = 0, f = 1MHz
t_r	Rise time		10		µS	V_R=10V, R_L=1kΩ, (3)
t_f	Fall time		12		µS	V_R=10V, R_L=1kΩ, (3)
V_{BR}	Reverse Breakdown Voltage		50		V	I_R = 100 µA
λ_P	Maximum Sensitivity Wavelength		550		nm	
λ_R	Sensitivity Spectral Range	400		700	nm	
$\theta_{1/2}$	Acceptance Half Angle		45		deg	(off center-line)

Specifications subject to change without notice

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