

SLD-68HFBG1

Internal Infrared Rejection Filter Planar Photodiode

Features

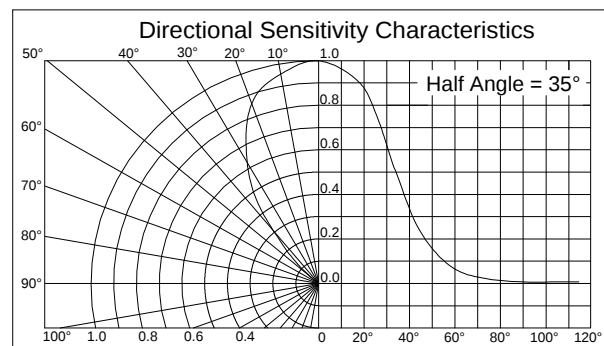
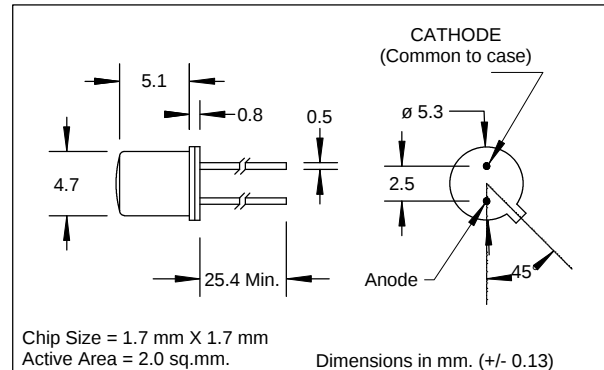
- Fast switching time, Low capacitance
- High responsivity
- Linear response vs irradiance
- IR Blocking Filter
- Hermetic TO-46 case with flat window
- Multiple dark current ranges available

Description

This small area planar, passivated silicon photodetector is designed to operate in either photovoltaic or reverse bias mode. It provides excellent linearity in output signal versus irradiance (Ee). Low dark current and low capacitance make it the ideal detector for fast rise time applications. Internal blue-green filter blocks infrared radiation.

Absolute Maximum Ratings

Storage Temperature	-20°C to +75°C
Operating Temperature	-20°C to +75°C
Soldering Temperature (1)	260°C



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

Symbol	Parameter	Min	Typ	Max	Units	Test Conditions
I _{SC}	Short Circuit Current	6	10		μA	V _R =0V, Ee=25mW/cm ² (2)
V _{OC}	Open Circuit Voltage		0.30		V	Ee=25mw/cm ² (2)
I _D	Reverse Dark Current:					
	SLD-68HFBG1A			100	nA	V _R =100mV, Ee=0
	SLD-68HFBG1B			100	nA	V _R =5V, Ee=0
	SLD-68HFBG1C			10	nA	V _R =5V, Ee=0
	SLD-68HFBG1D			1	nA	V _R =5V, Ee=0
	SLD-68HFBG1E			250	pA	V _R =5V, Ee=0
C _J	Junction Capacitance		40		pF	V _R =0, Ee=0, f=1MHz
t _R	Rise Time		1.0		μs	V _R =10V, R _L =1kΩ (3)
t _F	Fall Time		1.5		μs	V _R =10V, R _L =1kΩ (3)
TC _I	Temp. Coef., I _{SC}		+0.2		%/°C	(1)
V _{BR}	Reverse Breakdown Voltage	50			V	I _R =100μA
λ _P	Maximum Sensitivity Wavelength		550		nm	
λ _R	Sensitivity Spectral Range	400		700	nm	
θ _{1/2}	Acceptance Half Angle		35		deg	(off center-line)

Specifications subject to change without notice

102539 REV 2

Notes: (1) >2 mm from case for <5 sec.

(2) Ee = light source @ 2854 °K

(3) Ee = light source @ λ = 580 nm

5200 St. Patrick St., Montreal
 Que., H4E 4N9, Canada
 Tel: 514-768-8000
 Fax: 514-768-8889

The Old Railway, Princes Street
 Ulverston, Cumbria, LA12 7NQ, UK
 Tel: 01 229 581 551
 Fax: 01 229 581 554