

Features

- Low capacitance, fast switching time
- Linear response vs irradiance
- IR blocking filter
- Multiple dark current ranges available

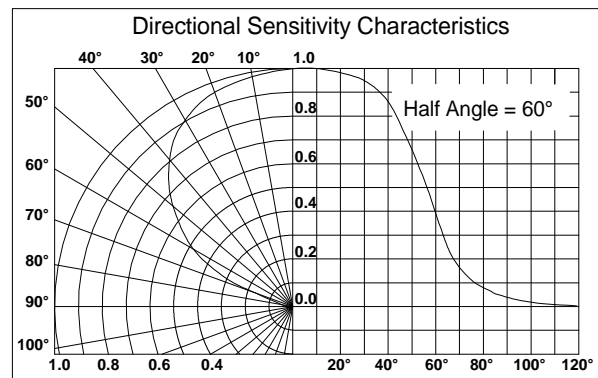
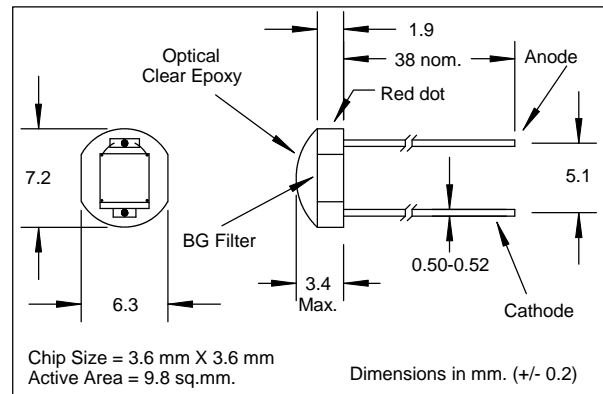
Description

The planar photodiode is designed to operate in either photoconductive or photovoltaic modes. This diode incorporates a BG filter that rejects infrared wavelengths and approximates the response of the human eye. High sensitivity and low dark current allow use in low irradiance applications. The photodiode measures 3.6 mm X 3.6 mm (0.140" X 0.140") and is supplied on a ceramic base with a clear epoxy dome package.

Absolute Maximum Ratings

Storage Temperature	-20°C to +85°C
Operating Temperature	-20°C 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 @ $\lambda = 580 \text{ nm}$



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

Symbol	Parameter	Min	Typ	Max	Units	Test Conditions
I _{SC}	Short Circuit Current	40	55		μA	V _R =0V, Ee=25mW/cm ² (2)
V _{OC}	Open Circuit Voltage		0.40		V	Ee=25mw/cm ² (2)
I _D	Reverse Dark Current:					
	SLD-70BG2A			100	nA	V _R =100mV, Ee=0
	SLD-70BG2B			100	nA	V _R =5V, Ee=0
	SLD-70BG2C			20	nA	V _R =5V, Ee=0
	SLD-70BG2D			5	nA	V _R =5V, Ee=0
	SLD-70BG2E			1	nA	V _R =5V, Ee=0
C _J	Junction Capacitance		180		pF	V _R =0V, Ee=0, f=1MHz
t _R	Rise Time		4		μs	V _R =5V, R _L =1kΩ (3)
t _F	Fall Time		6		μs	V _R =5V, R _L =1kΩ (3)
TC _I	Temp. Coef., I _{SC}		+0.2		%/°C	(2)
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		60		deg	(off center-line)

Specifications subject to change without notice.

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