



SLD-69IR1

Visible Light Rejection Filter Planar Photodiode

Features

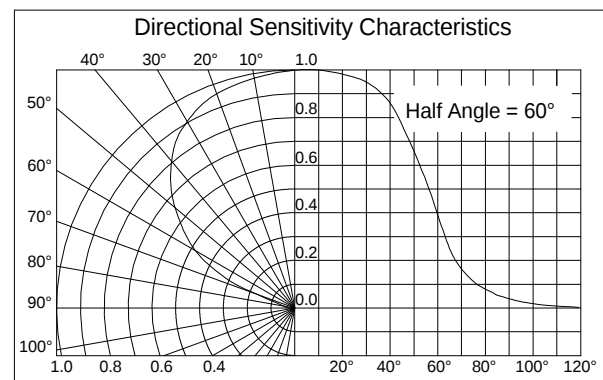
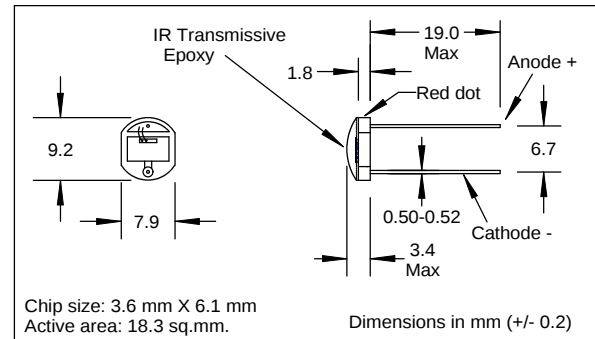
- Fast switching time
- Low leakage current
- Linear response vs irradiance
- IR pass filter
- Multiple dark current ranges available

Description

This planar, passivated silicon photodiode is designed to maximize response in the infrared spectrum of received energy. It is supplied on a ceramic base with an IR transmissive epoxy dome package that rejects the visible light wavelengths. Photodiodes may operate in either photovoltaic or reverse bias mode to provide low capacitance with fast switching speed. It provides excellent linearity in output signal versus irradiance.

Absolute Maximum Ratings

Operating & Storage Temperature -20°C to +85°C
Soldering Temperature (1) 260°C
Power Dissipation @ 25°C 250 mW



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

Symbol	Parameter	MIN	TYP	MAX	UNITS	TEST CONDITIONS
I _{SC}	Short Circuit Current	700	1000		μA	V _R =0V, E _e =25mW/cm ² (2)
V _{OC}	Open Circuit Voltage		0.40		V	E _e =25mW/cm ² (2)
I _D	Reverse Dark Current:					
	SLD-69IR1A			100	nA	V _R = 0.1V, E _e = 0
	SLD-69IR1B			100	nA	V _R = 5V, E _e = 0
	SLD-69IR1C			20	nA	V _R = 5V, E _e = 0
	SLD-69IR1D			5	nA	V _R = 5V, E _e = 0
	SLD-69IR1E			1	nA	V _R = 5V, E _e = 0
C _J	Junction Capacitance		350		pF	V _R =0, E _e =0, f=1MHz
t _R	Rise Time		8		μs	V _R =10V, R _L =1kΩ (3)
t _F	Fall Time		10		μs	V _R =10V, R _L =1kΩ (3)
TC _I	I _{SC} Temp. Coef.		+0.2		%/°C	(2)
V _{BR}	Reverse Breakdown Voltage	50			V	I _R =100μA
λ _P	Maximum Sensitivity Wavelength		990		nm	
λ _R	Sensitivity Spectral Range	700		1100	nm	
θ _{1/2}	Acceptance Half Angle		60		deg	(off center-line)

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

(2) E_e = light source @ 2854 °K

(3) E_e = light source @ λ = 880 nm

Specifications are subject to change without notice.

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