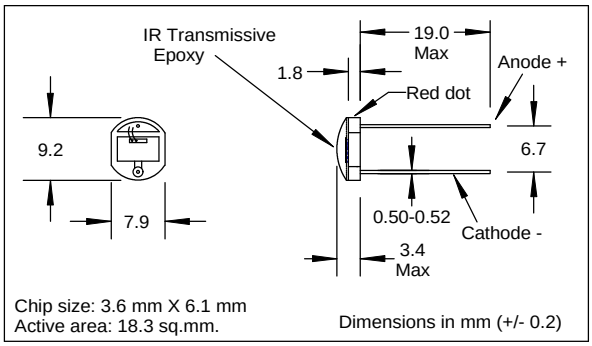
SLD-69IR1

Visible Light Rejection Filter
Planar Photodiode

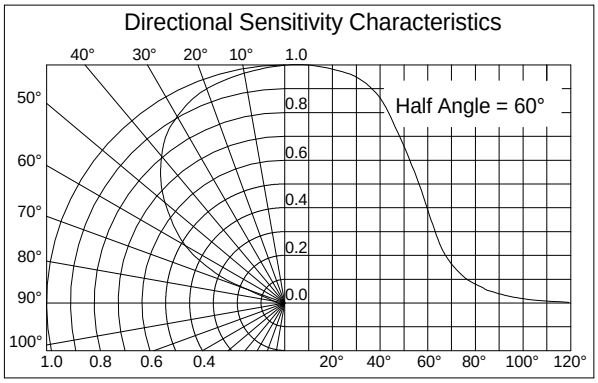
Features

- 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, Ee=25mW/cm^2 (2)
V_{OC}	Open Circuit Voltage		0.40		V	Ee=25mW/cm^2 (2)
I_D	Reverse Dark Current:					
	SLD-69IR1A			100	nA	V_R = 0.1V, Ee = 0
	SLD-69IR1B			100	nA	V_R = 5V, Ee = 0
	SLD-69IR1C			20	nA	V_R = 5V, Ee = 0
	SLD-69IR1D			5	nA	V_R = 5V, Ee = 0
	SLD-69IR1E			1	nA	V_R = 5V, Ee = 0
C_J	Junction Capacitance		350		pF	V_R=0, Ee=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	
$\theta_{1/2}$	Acceptance Half Angle		60		deg	(off center-line)

Notes: (1) >2 mm from case for <5 sec.
(2) Ee = light source @ 2854 °K
(3) Ee = light source @ λ = 880 nm

Specifications are subject to change without notice.

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