

### Features

- Low capacitance
- Fast switching time
- Low leakage current
- Linear response vs irradiance
- Hermetic TO-46 package with high dome lens
- 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. This is an ideal detector for fast rise time applications.

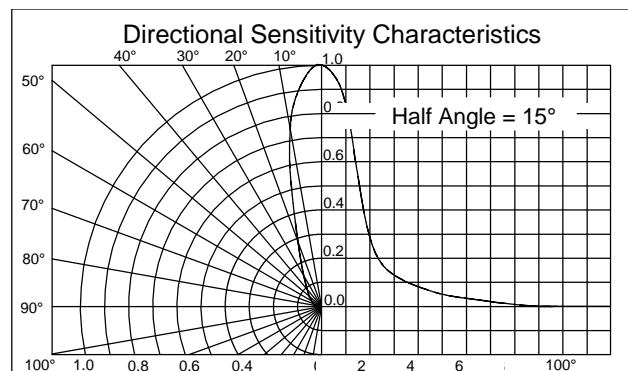
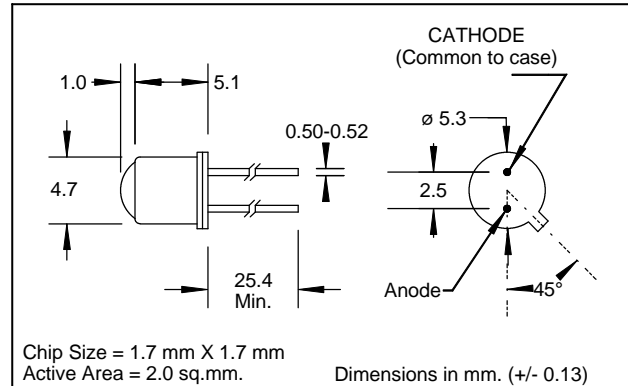
### Absolute Maximum Ratings

Storage Temperature	-40°C to +125°C
Operating Temperature	-40°C to +125°C
Soldering Temperature (1)	260°C

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

(2) Ee = source @ 2854 °K

(3) Ee = source @  $\lambda = 880$  nm



### Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

Symbol	Parameter	MIN	TYP	MAX	UNITS	TEST CONDITIONS
I <sub>SC</sub>	Short Circuit Current	50	70		μA	V <sub>R</sub> =0V, Ee=5mW/cm <sup>2</sup> (2)
V <sub>OC</sub>	Open Circuit Voltage		0.40		V	Ee=5mW/cm <sup>2</sup> (2)
I <sub>D</sub>	Reverse Dark Current					
	SLD-68HL1A			100	nA	V <sub>R</sub> =100mV, Ee=0
	SLD-68HL1B			100	nA	V <sub>R</sub> =5V, Ee=0
	SLD-68HL1C			10	nA	V <sub>R</sub> =5V, Ee=0
	SLD-68HL1D			1	nA	V <sub>R</sub> =5V, Ee=0
	SLD-68HL1E			250	pA	V <sub>R</sub> =5V, Ee=0
C <sub>J</sub>	Junction Capacitance		40		pF	V <sub>R</sub> =0, Ee=0, f=1MHz
t <sub>R</sub>	Rise Time		1.0		μs	V <sub>R</sub> =10V, R <sub>L</sub> =1kΩ (3)
t <sub>F</sub>	Fall Time		1.5		μs	V <sub>R</sub> =10V, R <sub>L</sub> =1kΩ (3)
TC <sub>I</sub>	Temp. Coef.		+0.2		%/°C	(2)
V <sub>BR</sub>	Reverse Breakdown Voltage	50			V	I <sub>R</sub> =100μA
λ <sub>P</sub>	Maximum Sensitivity Wavelength		930		nm	
λ <sub>R</sub>	Sensitivity Spectral Range	400		1100	nm	
θ <sub>1/2</sub>	Acceptance Half Angle		15		deg	(off center-line)

Specifications subject to change without notice

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