

Features

- Low capacitance, fast switching time
- Low leakage current
- Linear response vs irradiance
- Hermetic package with flat window
- Multiple dark current ranges available

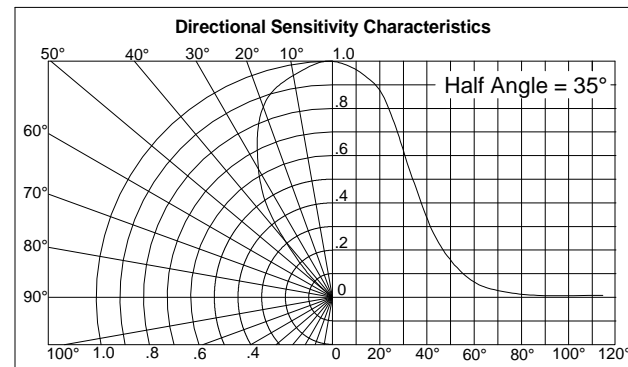
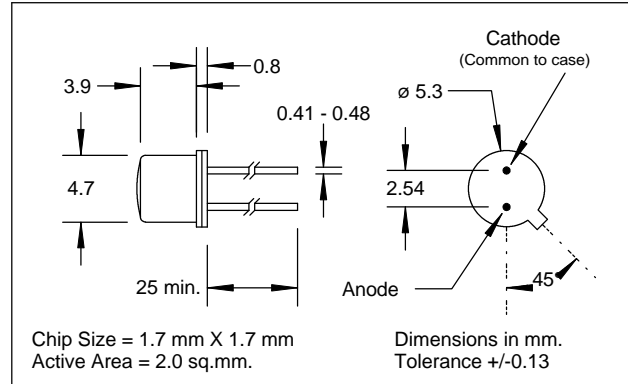
Description

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 light intensity. Low dark current and low capacitance makes it the 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 (3)	260°C

- Notes: (1) Ee = light source @ 2854 °K
 (2) Ee = light source @ $\lambda = 880 \text{ nm}$
 (3) >2 mm from case for < 5 sec.



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

Symbol	Parameter	MIN	TYP	MAX	UNITS	TEST CONDITIONS
I _{SC}	Short Circuit Current	110	130		μA	V _R =0V, Ee=25mW/cm ² (1)
V _{OC}	Open Circuit Voltage		0.40		V	Ee=25mw/cm ² (1)
I _D	Reverse Dark Current:					
	SLD-68HF1A			100	nA	V _R =100mV, Ee=0
	SLD-68HF1B			100	nA	V _R =5V, Ee=0
	SLD-68HF1C			10	nA	V _R =5V, Ee=0
	SLD-68HF1D			1	nA	V _R =5V, Ee=0
	SLD-68HF1E			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 (2)
t _F	Fall Time		1.5		μs	V _R =10V, R _L =1kΩ (2)
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		950		nm	
λ _R	Sensitivity Spectral Range	400		1100	nm	
θ _{1/2}	Acceptance Half Angle		35		deg	(off center-line)

Specifications subject to change without notice

102537 REV 1