



SLD-65HF1

Silicon Planar Photodiode

Features

- Very low dark leakage current
- High sensitivity
- Low capacitance
- TO-8 hermetic packaging
- Linear response vs irradiance
- High reliability
- Multiple dark current ranges available

Description

This family of planar, passivated photodiodes is designed for photovoltaic and photoconductive applications. The high sensitivity and low dark currents make these devices ideal for low irradiance detection. As well, their low capacitance and high speed make them useful for fast rise time applications. These detectors are housed in a TO-8 package.

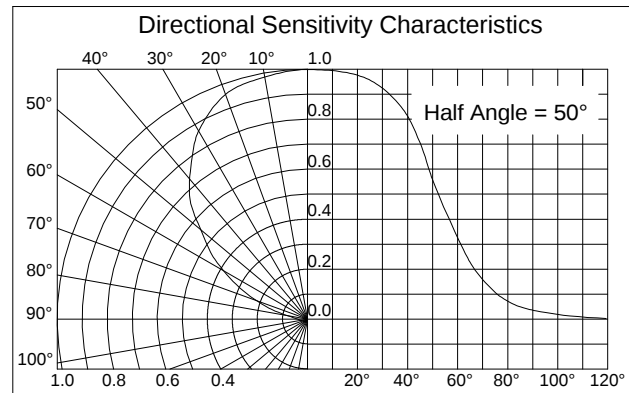
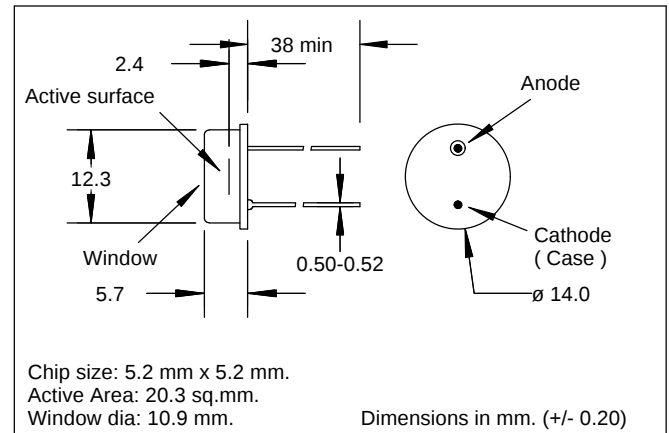
Absolute Maximum Ratings

Storage Temperature	-40 to + 125°C
Operating Temperature	-40 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 @ $\lambda=940$ nm



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

Symbol	Parameter	MIN	TYP	MAX	UNITS	TEST CONDITIONS
I _{SC}	Short Circuit Current	1000	1200		μA	Ee = 25mW/cm ² (2)
V _{OC}	Open Circuit Voltage		0.40		V	Ee = 25mW/cm ² (2)
I _D	Reverse Dark Current:					
	SLD-65HF1A			100	nA	V _R = 100 mV, Ee=0
	SLD-65HF1B			100	nA	V _R = 5 V, Ee=0
	SLD-65HF1C			20	nA	V _R = 5 V, Ee=0
	SLD-65HF1D			5	nA	V _R = 5 V, Ee=0
	SLD-65HF1E			1	nA	V _R = 5 V, Ee=0
C _J	Junction Capacitance		380		pf	V = 0V, Ee = 0, f = 1MHz
t _r	Rise time		10		μS	V _R =10V, R _L =1kΩ, (3)
t _f	Fall time		12		μS	V _R =10V, R _L =1kΩ, (3)
V _{BR}	Reverse Breakdown Voltage	50			V	I _R = 100 μA
λ _P	Maximum Sensitivity Wavelength		950		nm	
λ _R	Sensitivity Spectral Range	400		1100	nm	
θ _{1/2}	Acceptance Half Angle		50		deg	(off center-line)

Specifications subject to change without notice

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