

Solderable Planar Photodiode

Features

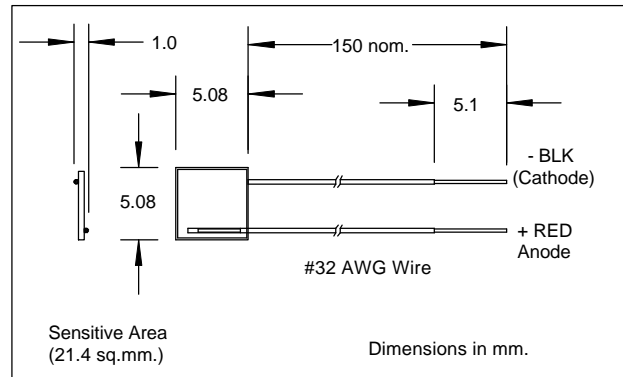
- Visible and IR spectral response
- High reliability
- Oxide passivation
- Linear short circuit current
- Low capacitance, high speed
- Protective coating

Description

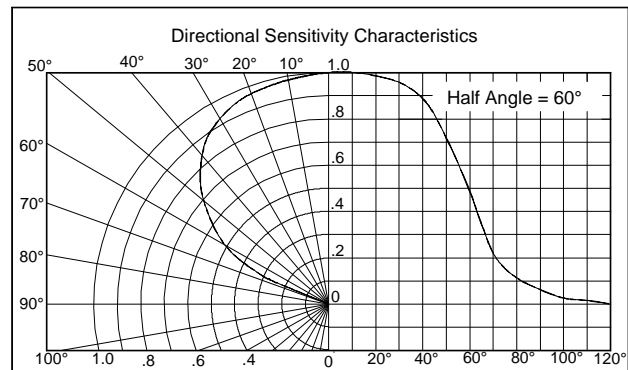
The Silonex series of silicon solderable planar photodiodes feature low cost, high reliability, and linear short circuit current over a wide range of illumination. These devices are widely used for light sensing and power generation because of their stability and high efficiency. They are particularly suited to power conversion applications due to their low internal impedance, relatively high shunt impedance, and stability. The photodiodes have a protective coating that protects them from humidity effects. These devices also provide a reliable and inexpensive detector for instrumentation and light beam sensing applications.

Absolute Maximum Ratings

Storage Temperature	-40°C to +105°C
Operating Temperature	-40°C to +105°C



Also available without leads as part number SLCD 61N2



Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	MIN	TYP	MAX	UNITS	TEST CONDITIONS
I_{SC}	Short Circuit Current	0.7	1.2		mA	$V_R=0V, E_e=25\text{mW}/\text{cm}^2$ (1)
V_{OC}	Open Circuit Voltage		0.40		V	$E_e=25\text{mw}/\text{cm}^2$ (1)
I_D	Reverse Dark Current			3.3	μA	$V_R=5V, E_e=0$
C_J	Junction Capacitance		0.7		nF	$V_R=0V, E_e=0, f=1\text{MHz}$
S_λ	Spectral Sensitivity		0.55		A/W	$\lambda=940\text{nm}$
V_{BR}	Reverse Breakdown Voltage	20			V	$I_R=100\mu\text{A}$
λ_P	Maximum Sensitivity Wavelength		930		nm	
λ_R	Sensitivity Spectral Range	400		1100	nm	
$\theta_{1/2}$	Acceptance Half Angle		60		deg	(off center-line)

Notes: (1) E_e = light source @ 2854 °K

Specifications subject to change without notice

101429 REV 5