



# PDB-C107

## Silicon Photodiode

The PDB-C107 is a 17.9mm<sup>2</sup> silicon photodiode designed for applications requiring a large active area photodiode with low capacitance and high-speed response time. The device is packaged on a 2-pin ceramic with clear glob top epoxy.

### Applications

Industrial

Instrumentation

Medical

### Features

Low Noise, High Shunt Resistance

Visible-NIR Sensitive

Large Active Area

High Speed Response Time

2-pin Ceramic

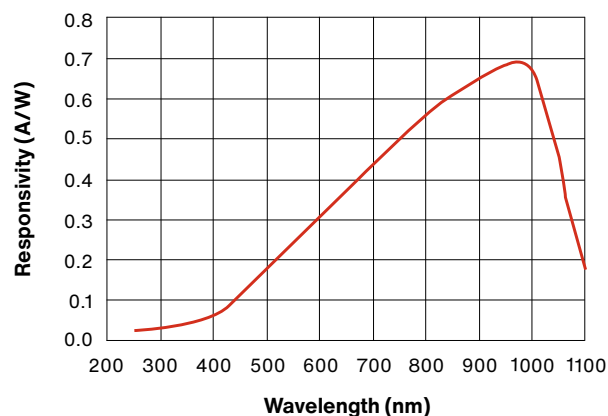
## Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Reverse Voltage	$V_R$	-	75	V
Wavelength Range	-	350	1100	nm
Operating Temperature	$T_{OP}$	-40	+100	°C
Storage Temperature	$T_{STG}$	-55	+100	°C
Package	Ceramic			

## Typical Electro-Optical Specifications at $T_A=23\text{ }^\circ\text{C}$

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Short Circuit Current	$H=100\text{ fc}$ , $2859\text{K}$	$I_{SC}$	150	-	-	$\mu\text{A}$
Dark Current	$V_R=5\text{V}$	$I_D$	-	150	300	nA
Shunt Resistance	$V_R=10\text{mV}$	$R_{SH}$	200	-	-	$\text{M}\Omega$
Junction Capacitance	$V_R=10\text{V}$ ; $f=1\text{MHz}$	$C_J$	-	100	-	pF
Responsivity	$\lambda=900\text{nm}$ , $V_R=0\text{V}$	-	0.55	0.60	-	A/W
Breakdown Voltage	$I=10\mu\text{A}$	$V_{BD}$	50	100	-	V
Noise Equivalent Power	$V_R=0\text{V}$ @ $\lambda=\text{Peak}$	NEP	-	$4 \times 10^{-13}$	-	$\text{W}/\sqrt{\text{Hz}}$
Response Time	$R_L=50\text{K}\Omega$ , $V_R=0\text{V}$	$T_R$	-	80	-	nS
	$R_L=50\text{K}\Omega$ , $V_R=10\text{V}$	$T_R$	-	10	-	nS

## Spectral Response



## Mechanical Specifications

Units in inches [mm]

