



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

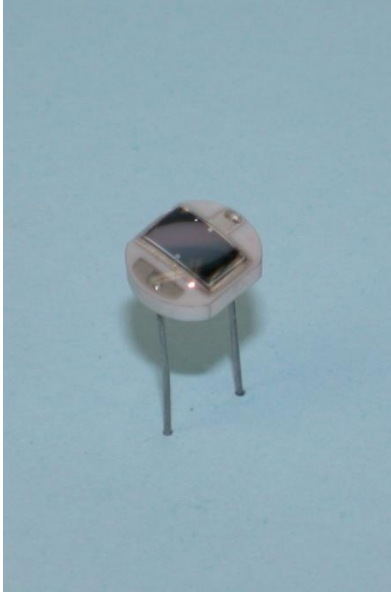
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## PDB-C107 Silicon Photodiode



### FEATURES

- Low Noise
- Visible-NIR Sensitive
- High Shunt Resistance
- High Response

### DESCRIPTION

The **PDB-C107** is a 17.9mm<sup>2</sup> PIN silicon photodiode packaged in a ceramic package.

### APPLICATIONS

- Industrial
- Instrumentation
- Medical

### > Absolute Maximum Ratings

Symbol	Min		Max	Units	T <sub>A</sub> = 23°
Reverse Voltage	-	-	75	V	-
Operation Temperature	-40	to	+100	°C	-
Storage Temperature	-40	to	+100	°C	-
Soldering Temperature*	-	-	+240	°C	-

### NOTES:

\* 1/16 inch from case for 3 seconds max.

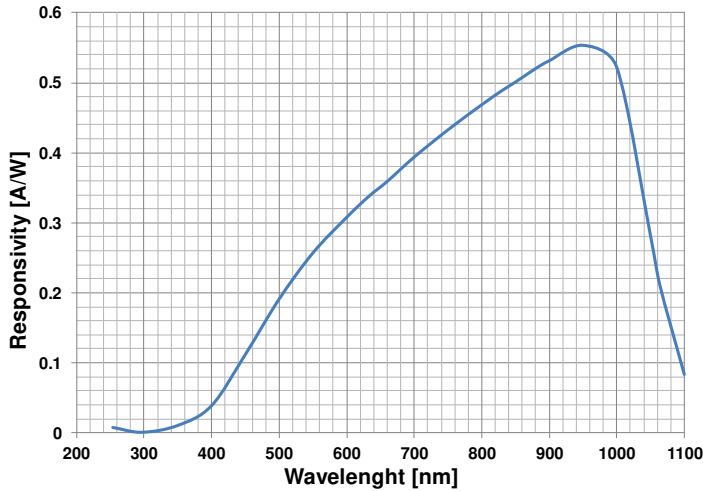
## PDB-C107 Silicon Photodiode

### > Electrical and Optical Characteristics

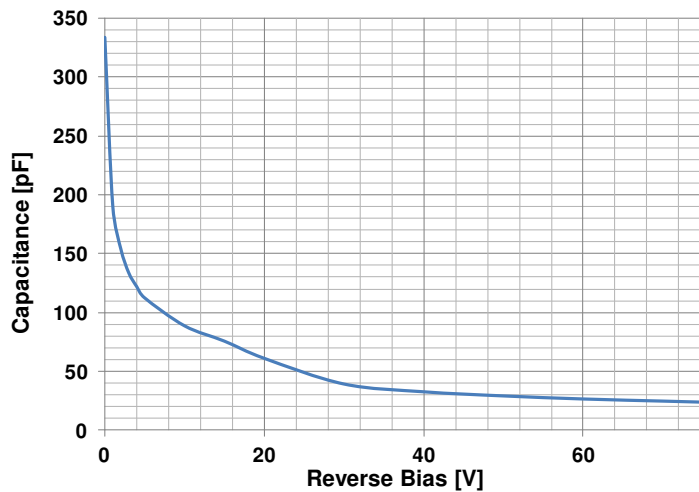
#### Typical Characteristics (T=25 C unless specified)

Parameter	Test Conditions	Symbol	Min	Typical	Max	Unit
Short Circuit Current	H = 100 fc, 2859 K	$I_{SC}$	170	-	-	$\mu A$
Dark Current	$V_R=5V$	$I_D$	-	150	300	nA
Shunt Resistance	$V_R=10mV$	$R_S$	200	1000	-	M $\Omega$
Junction Capacitance	$V_R=10V, f=1MHz$	$C_J$	-	100	-	pF
Spectral Application Range	Spot Scan	$\lambda$	350	-	1100	nm
Responsivity	$\lambda=500nm, V, V_R=0V$	-	0.15	0.19	-	A/W
Breakdown Voltage	$I=10\mu A$	$V_B$	75	100	-	V
Noise Equivalent Power	$V_R=0v @ \lambda=PEAK$	NEP	-	$3 \times 10^{-13}$	-	W/ $\sqrt{Hz}$
Response Time*	$R_L=50\Omega, V_R=0V$	$T_R$	190	190	-	ns
	$R_L=50\Omega, V_R=10V$		-	13	-	

### > Spectral Response



### > Capacitance vs. Reverse Bias

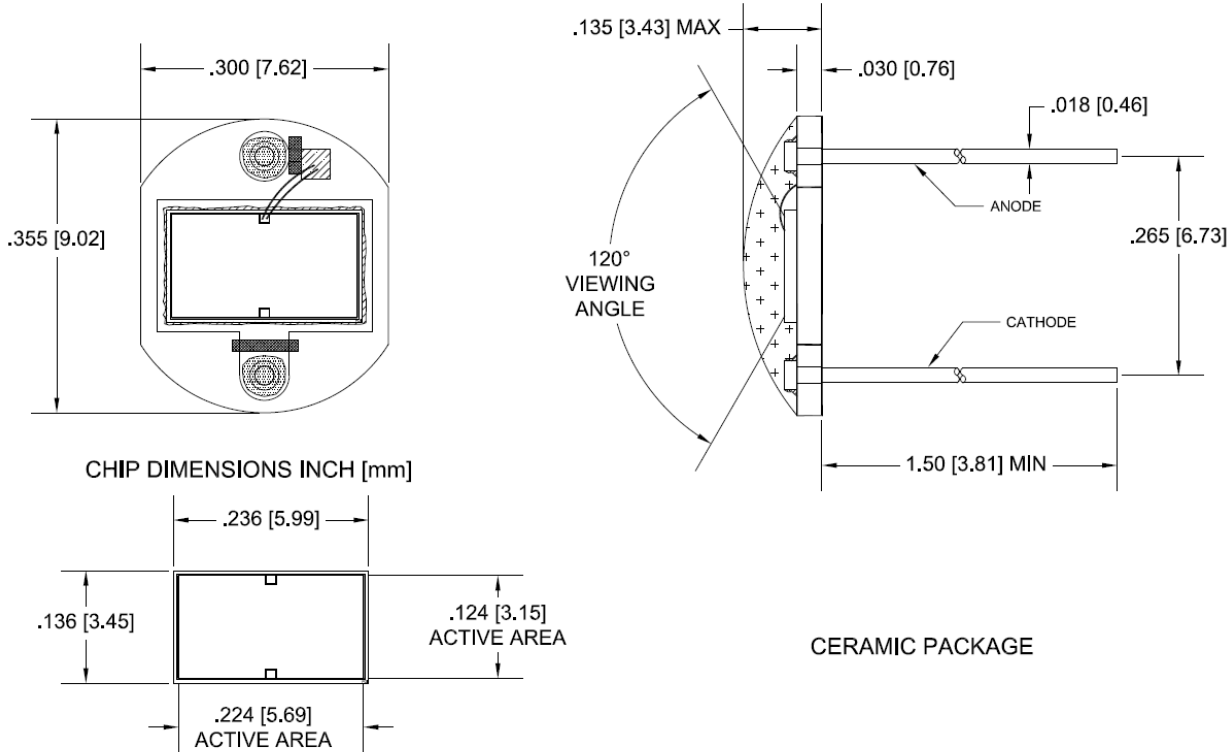




# PDB-C107 Silicon Photodiode

## > Package Drawing

PACKAGE DIMENSIONS INCH [mm]



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## MATERIALS SAFETY

This product is free of conflict minerals and meets REACH compliance. Please see website for reports.