Blue Enhanced Photoconductive Silicon Photodiode

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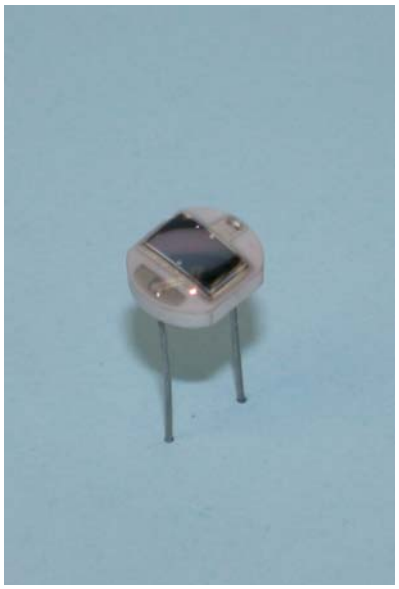
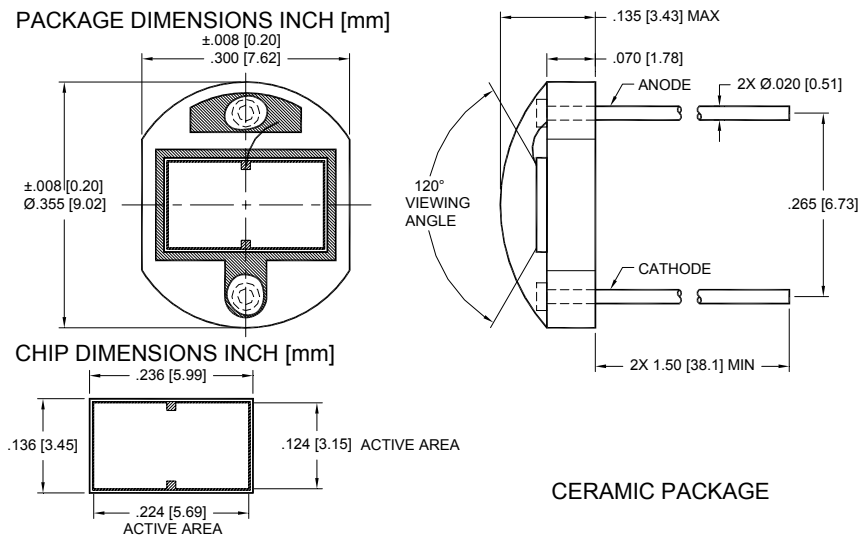
PDB-C107





FEATURES

- Low noise
- Blue enhanced
- High shunt resistance
- High response

DESCRIPTION

The **PDB-C107** is a blue enhanced PIN silicon photodiode in a photoconductive mode, packaged in a ceramic package.

APPLICATIONS

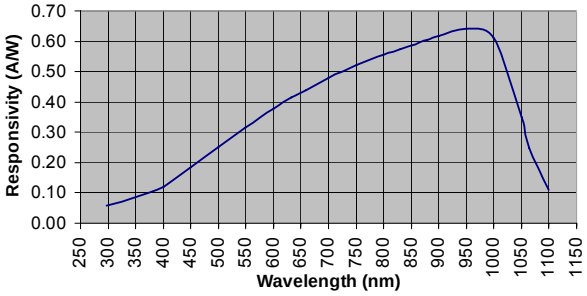
- Instrumentation
- Industrial
- Medical

ABSOLUTE MAXIMUM RATING (TA)= 23°C UNLESS OTHERWISE NOTED

SYMBOL	PARAMETER	MIN	MAX	UNITS
V_{BR}	Reverse Voltage		75	V
T_{STG}	Storage Temperature	-40	+100	°C
T_O	Operating Temperature	-40	+100	°C
T_S	Soldering Temperature*		+240	°C

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

SPECTRAL RESPONSE



ELECTRO-OPTICAL CHARACTERISTICS RATING (TA)= 23°C UNLESS OTHERWISE NOTED

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{SC}	Short Circuit Current	H = 100 fc, 2850 K	170			µA
I_D	Dark Current	V_R = 5V		150	300	nA
R_{SH}	Shunt Resistance	V_R = 10 mV	200	1000		MΩ
C_J	Junction Capacitance	V_R =10 V, f = 1 MHz		100		pF
λrange	Spectral Application Range	Spot Scan	350		1100	nm
R	Responsivity	λ= 450 nm V, V_R = 0 V	0.15	0.17		A/W
V_{BR}	Breakdown Voltage	I = 10 μA	75	100		V
NEP	Noise Equivalent Power	V_R = 0V @ λ = Peak		$3X10^{-13}$		W/ $\sqrt{Hz}$
t_r	Response Time**	RL = 50 Ω,V_R = 0 V		190		nS
		RL = 50 Ω,V_R = 10 V		13		

**Response time of 10% to 90% is specified at 660nm wavelength light.

Information in this technical datasheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject to change without notice.

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