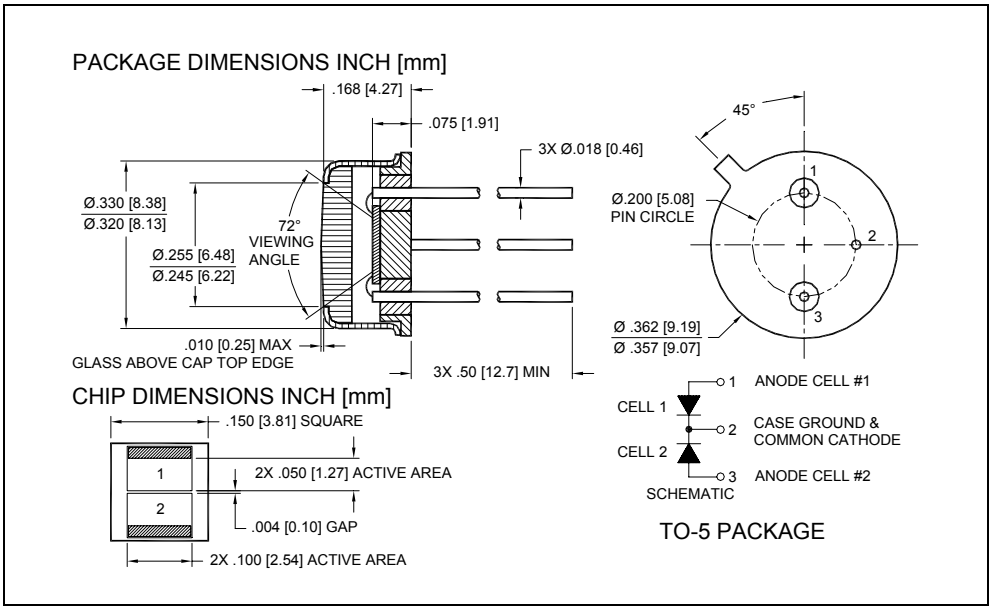
Blue Enhanced Bi-Cell Silicon Photodiode

PDB-C201



FEATURES

- Low capacitance
- Blue enhanced
- High speed
- Low dark current

DESCRIPTION

The **PDB-C201** is a blue enhanced Bi-Cell silicon photodiode used for nulling, centering, or measuring small positional changes packaged in a hermetic TO-5 metal package.

APPLICATIONS

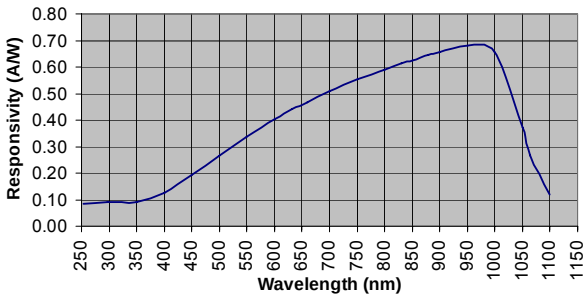
- Emitter Alignment
- Position sensing
- Medical and Industrial

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

SYMBOL	PARAMETER	MIN	MAX	UNITS
V_{BR}	Reverse Voltage		100	V
T_{STG}	Storage Temperature	-55	+150	°C
T_O	Operating Temperature	-40	+125	°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	50	75		µA
I_D	Dark Current	V_R = 5V		0.5	2.0	nA
R_{SH}	Shunt Resistance	V_R = 10 mV	250	500		MΩ
C_J	Junction Capacitance	V_R =10 V, *f* = 1 MHz		15		pF
λrange	Spectral Application Range	Spot Scan	350		1100	nm
V_{BR}	Breakdown Voltage	I = 10 µA	50	75		V
NEP	Noise Equivalent Power	V_R = 0V @ λ = Peak		$1X10^{-14}$		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.

Advanced Photonix Inc. 1240 Avenida Acaso, Camarillo CA 93012 • Phone (805) 987-0146 • Fax (805) 484-9935 • www.advancedphotonix.com