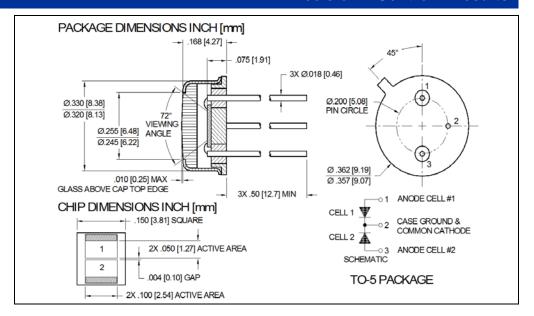


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# **Precision – Control – Results**





#### **DESCRIPTION**

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

### **RELIABILITY**

Contact Luna for recommendations on specific test conditions and procedures.

#### **FEATURES**

- Low Capacitance
- Blue Enhanced
- High Speed
- Low Dark Current

### **APPLICATIONS**

- Emitter Alignment
- Position sensing
- Medical and Industrial

#### **ABSOLUTE MAXIMUM RATINGS**

SYMBOL	MIN		MAX	UNITS	
Reverse Voltage	-	-	100	V	T <sub>a</sub> = 23°C UNLESS OTHERWISE NOTED
Storage Temperature	-55	-	150	°C	-
Operating Temperature	-40	to	+125	°C	-
Soldering Temperature*	-	-	+240	°C	-

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



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# **OPTO-ELECTRICAL PARAMETERS**

T<sub>a</sub> = 23°C UNLESS NOTED OTHERWISE

PARAMETER	TEST CONDITIONS	MIN	ТҮР	MAX	UNITS
Short Circuit Current	H= 100 fc, 2850 K	50	75	-	V
Dark Current	V <sub>R</sub> = 5 V	-	0.5	2.0	nA
Shunt Resistance	V <sub>R</sub> = 10 mV	250	500	-	МΩ
Junction Capacitance	V <sub>R</sub> =10V; f = 1 MHz	-	15	-	pF
Spectral Application Range	Spot Scan	350	-	1100	nm
Breakdown Voltage	I=10 μA	50	75	-	V
Noise Equivalent Power	V <sub>R</sub> =0V@λ= Peak	-	1x10 <sup>-14</sup>	-	W/√ <sub>Hz</sub>
Response Time**	$RL = 1K\Omega, V_R = 0 V$	-	190	190 -	200
	$RL = 1K\Omega, V_R = 10 V$	-	13	-	- nS

<sup>\*\*</sup>Response time of 10% to 90% is specified at 660nm wavelength light.

# **TYPICAL PERFORMANCE**

### **SPECTRAL RESPONSE**

