



DESCRIPTION

The **PDB-C203** is a blue enhanced quad-cell silicon photodiode used for nulling, centering, or measuring small positional changes packaged in a hermetic TO-5 metal package.

FEATURES

- Low Noise
- Red Enhanced
- High Speed
- Low Dark Current

RELIABILITY

Contact Luna for recommendations on specific test conditions and procedures.

APPLICATIONS

- Emitter Alignment
- Position Sensing
- Medical and Industrial

ABSOLUTE MAXIMUM RATINGS

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

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

OPTO-ELECTRICAL PARAMETERS

$T_a = 23^\circ\text{C}$ UNLESS NOTED OTHERWISE

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Short Circuit	H=100 fc, 2850 K	20	25	-	μA
Dark Current	$V_R = 5\text{ V}$	-	0.5	1.0	nA
Shunt Resistance	$V_R = 10\text{ mV}$	250	500	-	$\text{M}\Omega$
Junction Capacitance	$V_R = 10\text{V}; f = 1\text{ MHz}$	-	8	-	pF
Spectral Application Range	Spot Scan	350	-	1100	nm
Breakdown Voltage	$I = 10\ \mu\text{A}$	50	75	-	V
Noise Equivalent Power	$V_R = 0\text{V} @ \lambda = \text{Peak}$	-	8.5×10^{-15}	-	$\text{W}/\sqrt{\text{Hz}}$
Response Time**	$\text{RL} = 50\ \Omega, V_R = 0\text{ V}$	-	190	-	nS
	$\text{RL} = 50\ \Omega, V_R = 10\text{ V}$	-	13	-	

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

TYPICAL PERFORMANCE

SPECTRAL RESPONSE

