



DESCRIPTION

The **PDB-V107** is a blue enhanced PIN silicon photodiode in a photovoltaic mode, packaged in a ceramic package.

FEATURES

- Low Noise
- Blue Enhanced
- High Shunt Resistance
- High Response

RELIABILITY

Contact Luna for recommendations on specific test conditions and procedures.

APPLICATIONS

- Instrumentation
- Industrial
- Medical



ABSOLUTE MAXIMUM RATINGS

SYMBOL	MIN	MAX	UNITS		
Reverse Voltage	-	-	75	V	$T_a = 23^{\circ}\text{C}$ UNLESS OTHERWISE NOTED
Storage Temperature	-40	to	+100	$^{\circ}\text{C}$	
Operating Temperature	-40	to	+90	$^{\circ}\text{C}$	
Soldering Temperature*	-	-	+240	$^{\circ}\text{C}$	

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

OPTO-ELECTRICAL PARAMETERS

T_a = 23°C UNLESS OTHERWISE NOTED

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Short Circuit Current	H=100 fc, 2850 K	170	-	-	μA
Dark Current	V _R = 10V	-	400	800	pA
Shunt Resistance	V _R = 10 mV	100	500	-	MΩ
Junction Capacitance	V _R = 0V, f = 1 MHz	-	2000	-	pF
Spectral Application Range	Spot Scan	350	-	1100	nm
Responsivity	λ = 450nm V, V _R = 0V	0.15	0.17	-	A/W
Breakdown Voltage	I = 10 μA	30	50	-	V
Noise Equivalent Power	V _R = 0V @ λ=Peak	-	2x10 ⁻¹³	-	W/√Hz
Response Time**	RL = 50Ω, V _R = 0V	-	190	-	nS
	RL = 50Ω, V _R = 10V	-	13	-	

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

TYPICAL PERFORMANCE

SPECTRAL RESPONSE

