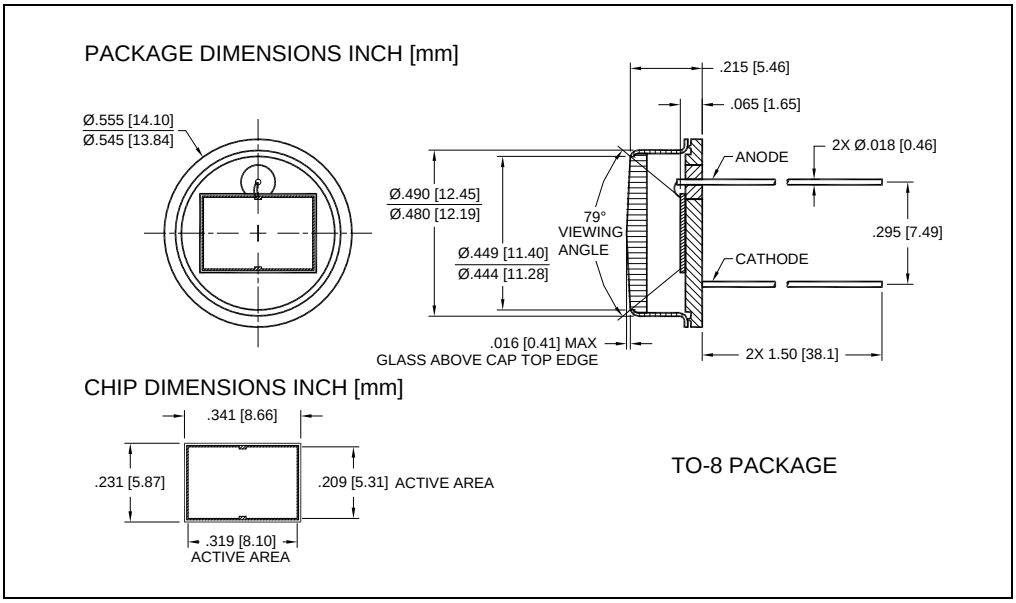
Blue Enhanced Photoconductive Silicon Photodiode

PDB-C109

WWW.LUNAINC.COM — **Precision – Control – Results**



DESCRIPTION

The **PDB-C109** is a blue enhanced PIN silicon photodiode in a photoconductive mode, packaged in a TO-8 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°C UNLESS OTHERWISE NOTED
Storage Temperature	-55	to	+150	°C	-
Operating Temperature	-40	to	+125	°C	-
Soldering Temperature*	-	-	+240	°C	-

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

REV 01-04-16

Luna Optoelectronics, 1240 Avenida Acaso, Camarillo CA 93012 • Phone (805) 987-0146 • Fax (805) 484-9935

OPTO-ELECTRICAL PARAMETERS

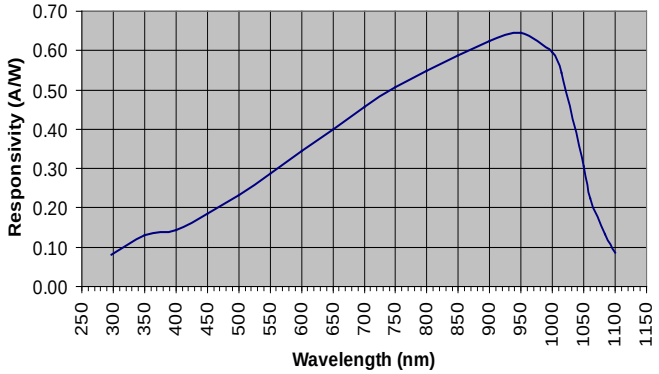
T_a = 23°C UNLESS OTHERWISE NOTED

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Short Circuit Current	H=100 fc, 2850 K	450	500	-	µA
Dark Current	V_R = 10V	-	5	15	nA
Shunt Resistance	V_R = 10 mV	30	100	-	MΩ
Junction Capacitance	V_R = 10V, *f* = 1 MHz	-	120	-	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	-	$5x10^{-13}$	-	W/ $\sqrt{}$ 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



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