



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



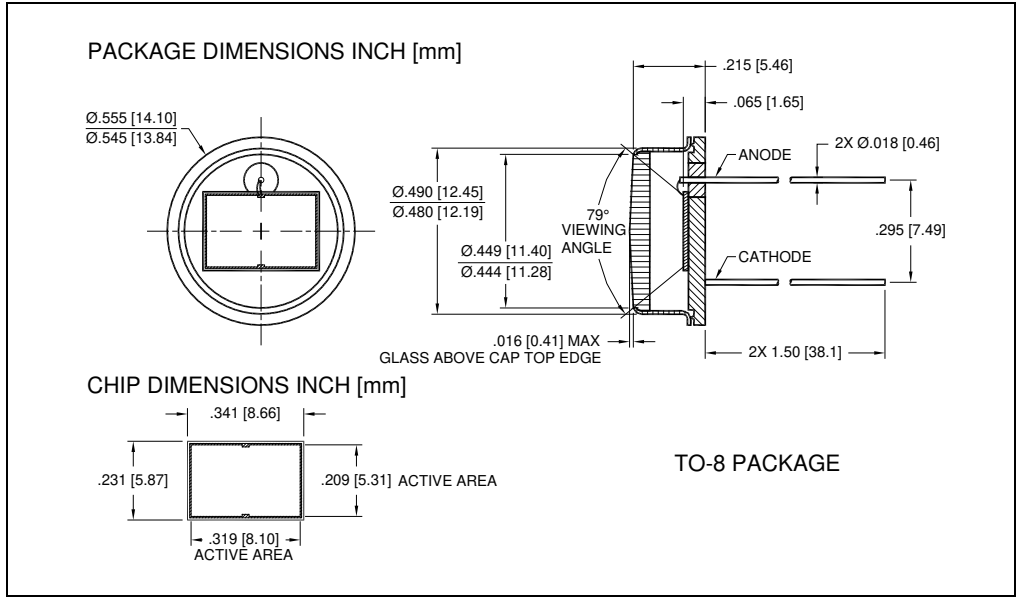
## Contact us

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**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	$T_a = 23^{\circ}\text{C}$ UNLESS OTHERWISE NOTED
Storage Temperature	-55	to	+150	$^{\circ}\text{C}$	-
Operating Temperature	-40	to	+125	$^{\circ}\text{C}$	-
Soldering Temperature*	-	-	+240	$^{\circ}\text{C}$	-

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

**OPTO-ELECTRICAL PARAMETERS**

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

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Short Circuit Current	H=100 fc, 2850 K	450	500	-	$\mu\text{A}$
Dark Current	$V_R = 10\text{V}$	-	5	15	nA
Shunt Resistance	$V_R = 10\text{ mV}$	30	100	-	$\text{M}\Omega$
Junction Capacitance	$V_R = 10\text{V}, f = 1\text{ MHz}$	-	120	-	pF
Spectral Application Range	Spot Scan	350	-	1100	nm
Responsivity	$\lambda = 450\text{nm V}, V_R = 0\text{V}$	0.15	0.17	-	A/W
Breakdown Voltage	$I = 10\ \mu\text{A}$	30	50	-	V
Noise Equivalent Power	$V_R = 0\text{V}@ \lambda = \text{Peak}$	-	$5 \times 10^{-13}$	-	$\text{W}/\sqrt{\text{Hz}}$
Response Time**	$R_L = 50\Omega, V_R = 0\text{V}$	-	190	-	nS
	$R_L = 50\Omega, V_R = 10\text{V}$	-	13	-	

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

**TYPICAL PERFORMANCE**

**SPECTRAL RESPONSE**

