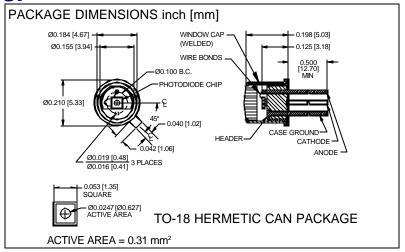
**PHOTONIC**Silicon Photodiode, Blue Enhanced Photoconductive Isolated Type PDB-C101-I





## **FEATURES**

- High speed
- Low capacitance
- Blue enhanced
- · Low dark current

#### **DESCRIPTION**

The **PDB-C101-I** is a silicon, PIN planar diffused, blue enhanced photodiode. Ideal for high speed photoconductive applications. Packaged in a hermetic TO-18 metal can with a flat window and isolated ground lead.

#### **APPLICATIONS**

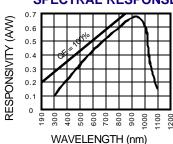
- Instrumentation
- Industrial controls
- Laser detection
- Particle detection

## ABSOLUTE MAXIMUM RATING (TA=25°C unless otherwise noted)

SYMBOL	PARAMETER	MIN	MAX	UNITS	
$V_{BR}$	Reverse Voltage		100	V	
T <sub>stg</sub>	Storage Temperature		+150	°C	
T <sub>o</sub>	Operating Temperature Range	-40	+125	°C	
T <sub>s</sub>	Soldering Temperature*		+240	°C	
I <sub>L</sub>	Light Current		0.5	mA	

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

# **SPECTRAL RESPONSE**



### **ELECTRO-OPTICAL CHARACTERISTICS** (TA=25°C unless otherwise noted)

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
l <sub>sc</sub>	Short Circuit Current	H = 100 fc, 2850 K	3.2	4.6		mA
I <sub>D</sub>	Dark Current	$H = 0, V_R = 10 V$		40	150	pА
R <sub>SH</sub>	Shunt Resistance	$H = 0, V_{R} = 10 \text{ mV}$	.50	5		GW
TC R <sub>SH</sub>	RSH Temp. Coefficient	$H = 0, V_{R} = 10 \text{ mV}$		-8		%/℃
C <sub>J</sub>	Junction Capacitance	$H = 0$ , $V_R = 10 V^{**}$		15		pF
■ range	Spectral Application Range	Spot Scan	350		1100	nm
<b>I</b> p	Spectral Response - Peak	Spot Scan		950		nm
V <sub>BR</sub>	Breakdown Voltage	I = 10 <b>m</b> A	100	125		V
NEP	Noise Equivalent Power	V <sub>R</sub> = 10 V @ Peak		1.5x10 <sup>-14</sup>		W/√Hz
tr	Response Time	RL = 1 K <b>W</b> V <sub>R</sub> = 50 V		10		nS

Information in this technical data sheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject to change without notice. \*\* f = 1MHz