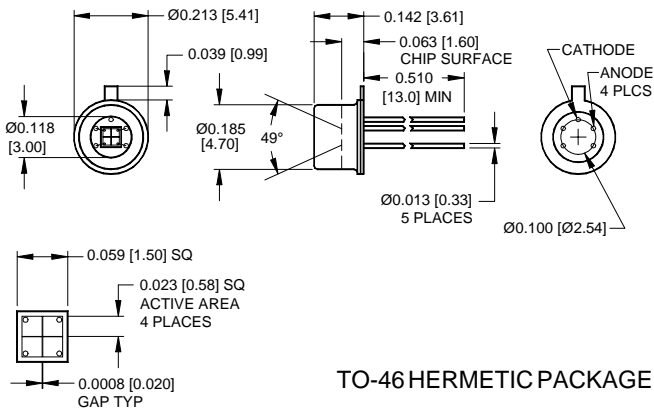


# PHOTONIC DETECTORS INC.

## Silicon Photodiode, Blue Enhanced Photoconductive Quadrant Type PDB-C207



### PACKAGE DIMENSIONS INCH [mm]



TO-46 HERMETIC PACKAGE

ACTIVE AREA = 0.33 mm<sup>2</sup> PER ELEMENT

### FEATURES

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

### DESCRIPTION

The **PDB-C207** is a silicon, pin planar diffused, blue enhanced quadrant photo-diode. Ideal for high speed photoconductive applications. Packaged in a hermetic TO-46 metal can with a flat window.

### APPLICATIONS

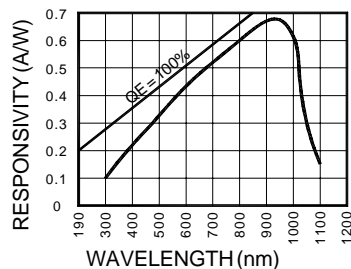
- Optical alignment
- Position sensing
- Edge sensing
- Instrumentation

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

SYMBOL	PARAMETER	MIN	MAX	UNITS
V <sub>BR</sub>	Reverse Voltage		100	V
T <sub>STG</sub>	Storage Temperature	-30	+100	°C
T <sub>O</sub>	Operating Temperature Range	-20	+80	°C
T <sub>S</sub>	Soldering Temperature*		+240	°C
I <sub>L</sub>	Light Current		0.5	mA

\*1/16 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
I <sub>SC</sub>	Short Circuit Current	H = 100 fc, 2850 K	1.5	2.2		μA
I <sub>D</sub>	Dark Current	H = 0, V <sub>R</sub> = 1 V		1	5	nA
R <sub>SH</sub>	Shunt Resistance	H = 0, V <sub>R</sub> = 10 mV	100	500		MΩ
TC <sub>RSH</sub>	R <sub>SH</sub> Temp. Coefficient	H = 0, V <sub>R</sub> = 10 mV		-8		% / °C
C <sub>J</sub>	Junction Capacitance	H = 0, V <sub>R</sub> = 10 V		10		pF
λ <sub>range</sub>	Spectral Application Range	Spot Scan	350		1100	nm
λ <sub>p</sub>	Spectral Response - Peak	Spot Scan		950		nm
V <sub>BR</sub>	Breakdown Voltage	I = 10 μA	30	75		V
NEP	Noise Equivalent Power	V <sub>R</sub> = 10 V @ Peak		6x10 <sup>-13</sup>		W/√Hz
tr	Response Time	RL = 1 KΩ V <sub>R</sub> = 10 V		100		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.

[FORM NO. 100-PDB-C207 REV AJ]