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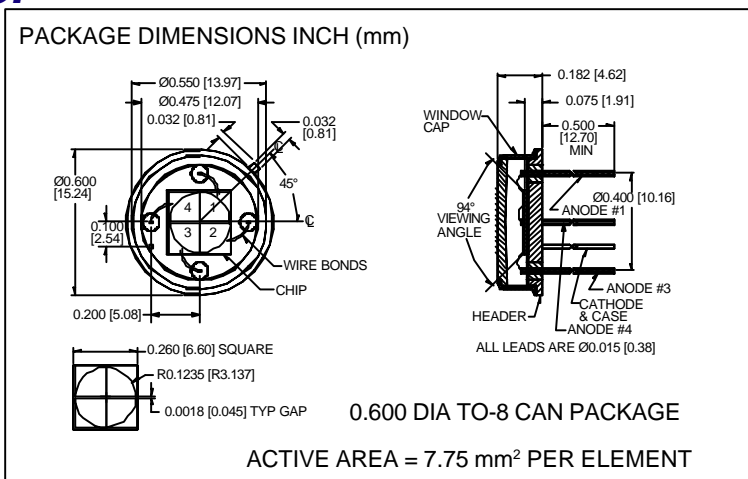
[Advanced Photonix, Inc.](#)  
[PDB-C204](#)

For any questions, you can email us directly:

[sales@integrated-circuit.com](mailto:sales@integrated-circuit.com)

# PHOTONIC DETECTORS INC.

## Silicon Photodiode, Blue Enhanced Photoconductive Quadrant Type PDB-C204



### FEATURES

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

### DESCRIPTION

The **PDB-C204** is a silicon, pin planar diffused, blue enhanced quadrant cell photodiode. Ideal for high speed photoconductive applications. Packaged in a 0.600 dia TO-8 metal can with a flat window cap.

### APPLICATIONS

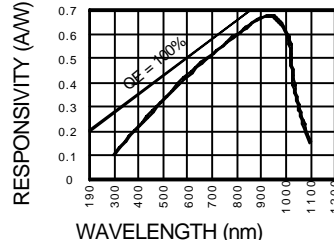
- Optical Alignment
- Position sensing
- Edge sensing
- Instrumentation

### 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	-55	+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

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

### SPECTRAL RESPONSE



### ELECTRO-OPTICAL CHARACTERISTICS PER ELEMENT (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	100	125		mA
I <sub>D</sub>	Dark Current	H = 0, V <sub>R</sub> = 10 V		2.5	5	nA
R <sub>SH</sub>	Shunt Resistance	H = 0, V <sub>R</sub> = 10 mV	150	200		MΩ
TC R <sub>SH</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		40		pF
λ <sub>range</sub>	Spectral Application Range	Spot Scan	320		1100	nm
λ <sub>p</sub>	Spectral Response - Peak	Spot Scan		950		nm
V <sub>BR</sub>	Breakdown Voltage	I = 10 mA	50	100		V
N <sub>EP</sub>	Noise Equivalent Power	V <sub>R</sub> = 10 V @ Peak		.75x10 <sup>-14</sup>		W/√Hz
t <sub>r</sub>	Response Time	RL = 1 KΩ V <sub>R</sub> = 10 V		5	15	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.