

## Excellent Integrated System Limited

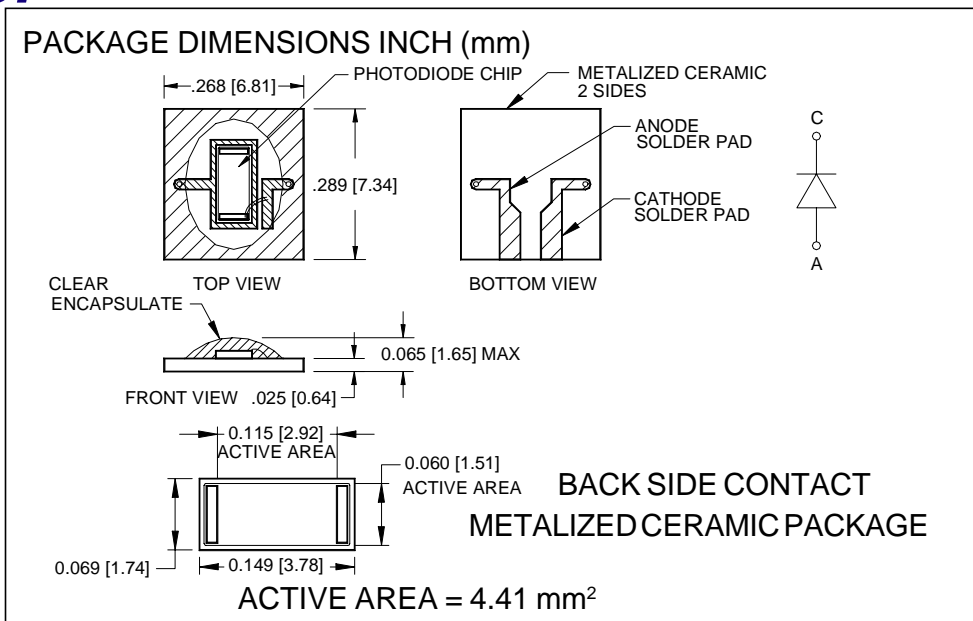
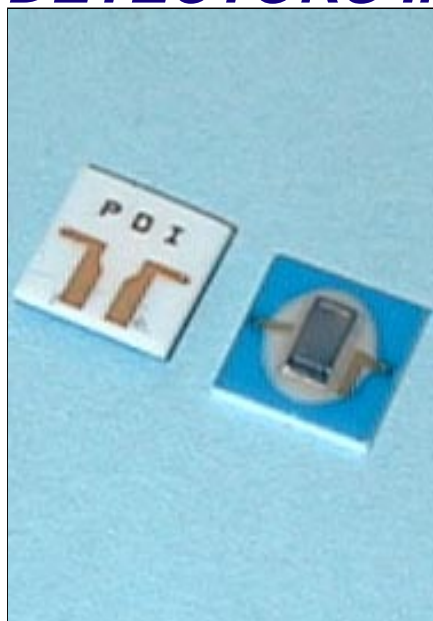
Stocking Distributor

Click to view price, real time Inventory, Delivery & Lifecycle Information:

[Advanced Photonix, Inc.](#)  
[PDB-C166](#)

For any questions, you can email us directly:

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



**FEATURES**

- High speed
- Specially matched to 660 nm and near IR emitters

**DESCRIPTION**

The **PDB-C166** is a silicon, PIN planar diffused, photodiode. Ideal for many OEM pulsed oximeter probe assemblies. Packaged in a metalized ceramic substrate with back side anode and cathode contacts.

**APPLICATIONS**

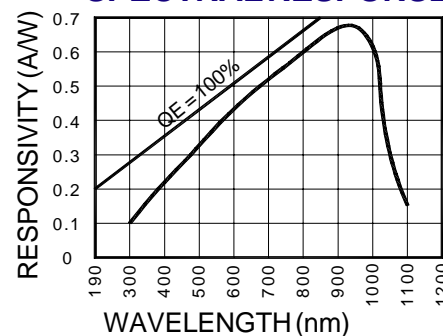
- Pulsed oximetry
- Glucometers
- Pulse meters

**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	-45	+100	°C
T <sub>O</sub>	Operating Temperature Range	-40	+80	°C
T <sub>S</sub>	Soldering Temperature*		+240	°C
I <sub>L</sub>	Light Current		50.0	mA

\*Temperature controlled soldering irons required with low temperature solder. Two second max dwell time.

**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	60	75		μA
I <sub>D</sub>	Dark Current	H = 0, V <sub>R</sub> = 10 V		1	10	nA
R <sub>SH</sub>	Shunt Resistance	H = 0, V <sub>R</sub> = 10 mV	50	100		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**		100		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	50	75		V
NEP	Noise Equivalent Power	V <sub>R</sub> = 10 V @ Peak		2.0x10 <sup>-14</sup>		W/√Hz
tr	Response Time	R <sub>L</sub> = 1 KΩ V <sub>R</sub> = 50 V		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. \*\*f = 1 MHz