

## Excellent Integrated System Limited

Stocking Distributor

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

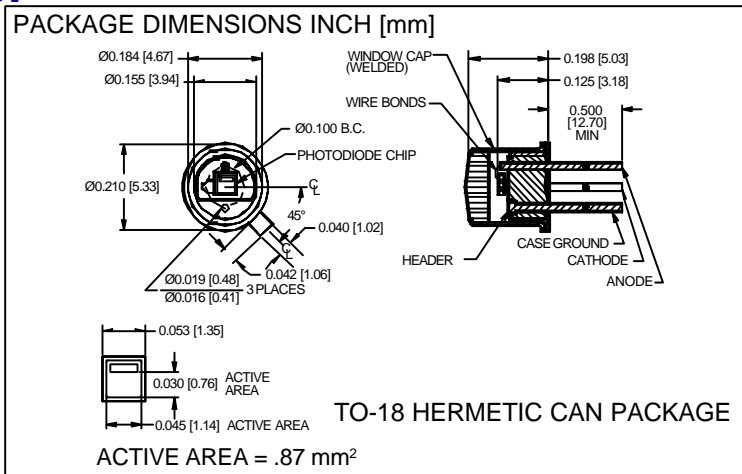
[Advanced Photonix, Inc.](#)  
[PDB-V102-I](#)

For any questions, you can email us directly:

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

# PHOTONIC DETECTORS INC.

## Silicon Photodiode, Blue Enhanced Photovoltaic Isolated Type PDB-V102-I



### FEATURES

- Low noise
- Blue enhanced
- High shunt resistance
- High response

### DESCRIPTION

The **PDB-V102-I** is a silicon, PIN planar diffused, blue enhanced photodiode. Ideal for low noise photovoltaic applications. Packaged in a hermetic TO-18 metal can with a flat window and isolated ground lead.

### APPLICATIONS

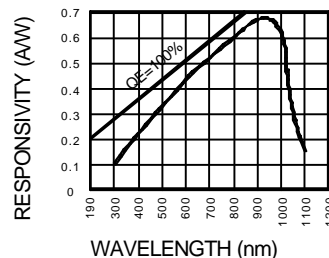
- Instrumentation
- Character recognition
- Laser detection
- Industrial controls

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

| SYMBOL           | PARAMETER                   | MIN | MAX  | UNITS |
|------------------|-----------------------------|-----|------|-------|
| V <sub>BR</sub>  | Reverse Voltage             |     | 75   | 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 (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             | 7   | 8                   |      | mA     |
| I <sub>D</sub>     | Dark Current               | H = 0, V <sub>R</sub> = 10 V   |     | 40                  | 125  | pA     |
| R <sub>SH</sub>    | Shunt Resistance           | H = 0, V <sub>R</sub> = 10 mV  | 2   | 10                  |      | GΩ     |
| TC R <sub>SH</sub> | RSH Temp. Coefficient      | H = 0, V <sub>R</sub> = 10 mV  |     | -8                  |      | % / °C |
| C <sub>J</sub>     | Junction Capacitance       | H = 0, V <sub>R</sub> = 0 V**  |     | 250                 |      | 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 mA                      | 30  | 50                  |      | V      |
| NEP                | Noise Equivalent Power     | V <sub>R</sub> = 10 mV @ Peak  |     | 3x10 <sup>-15</sup> |      | W/√Hz  |
| tr                 | Response Time              | RL = 1 KΩ V <sub>R</sub> = 0 V |     | 400                 |      | 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