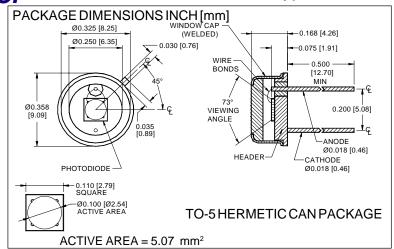
# PHOTONIC DETECTORS INC.

# Silicon Photodiode, Blue Enhanced Photovoltaic Type PDB-V115





#### **FEATURES**

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

#### **DESCRIPTION**

The **PDB-V115** is a silicon, PIN planar diffused, blue enhanced photodiode. Ideal for low noise photovoltaic applications. Packaged in a hermetic TO-5 metal can with a flat window.

#### **APPLICATIONS**

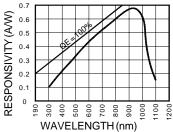
- Instrumentation
- Oximeters
- Laser sensor
- Medical sensor

### 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	
То	Operating Temperature Range	-40	+125	∘C	
Ts	Soldering Temperature*		+240	∘C	
I <sub>L</sub>	Light Current		1.0	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	TESTCONDITIONS	MIN	TYP	MAX	UNITS
Isc	Short Circuit Current	H = 100 fc, 2850 K	40	60		$\mu$ A
ΙD	Dark Current	$H = 0, V_R = 10 V$		250	450	pA
Rsн	Shunt Resistance	$H = 0, V_R = 10 \text{ mV}$	2	5		GΩ
TC Rsh	RSH Temp. Coefficient	$H = 0, V_R = 10 \text{ mV}$		-8		%/℃
Сл	Junction Capacitance	H = 0, V <sub>R</sub> = 0 V**		500		pF
λrange	Spectral Application Range	Spot Scan	350		1100	nm
λр	Spectral Response - Peak	Spot Scan		950		nm
V <sub>BR</sub>	Breakdown Voltage	I = 10 μA	30	50		V
NEP	Noise Equivalent Power	VR = 10 mV @ Peak		.5x10 <sup>-14</sup>		W/ √Hz
tr	Response Time	$RL = 1 K\Omega V_R = 0 V$		500		nS