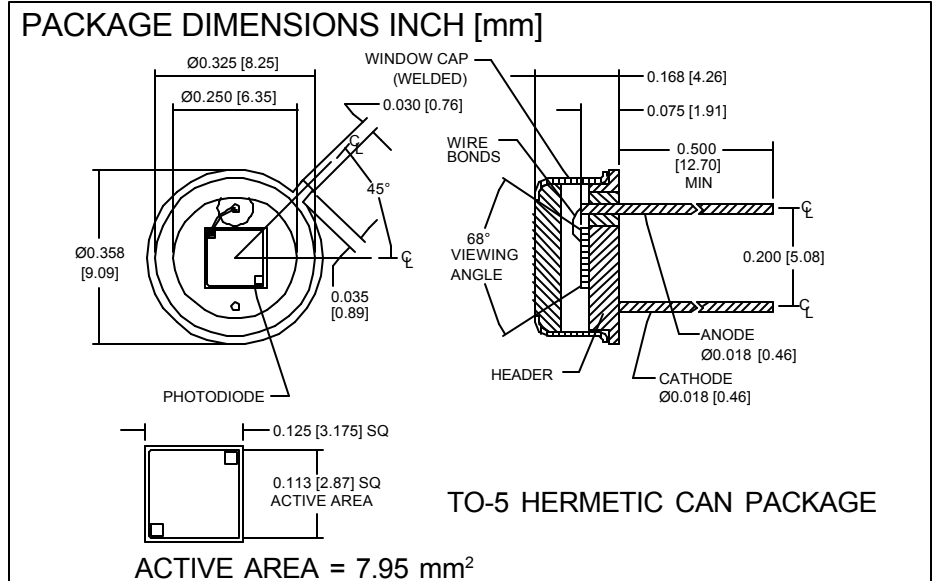


PHOTONIC DETECTORS INC.

Silicon Photodiode, Blue Enhanced Photovoltaic (OP913WSL Industry Equivalent) Type PDB-V119



FEATURES

- Wide view angle
- Low noise
- Large active area
- High shunt resistance

DESCRIPTION

The **PDB-V119** 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 glass window cap.

APPLICATIONS

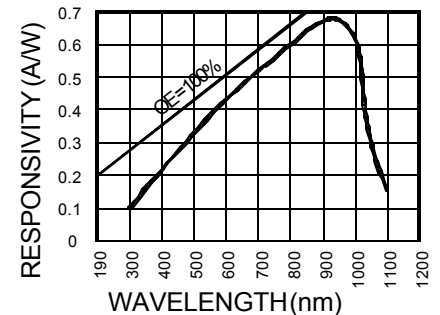
- Bar code detector
- Encoder sensor
- Laser detection
- Instrumentation

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

SYMBOL	PARAMETER	MIN	MAX	UNITS
V _{BR}	Reverse Voltage		75	V
T _{STG}	Storage Temperature	-55	+150	°C
T _O	Operating Temperature Range	-40	+125	°C
T _S	Soldering Temperature*		+240	°C
I _L	Light Current		500	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 _{SC}	Short Circuit Current	H = 100 fc, 2850 K	60	80		μA
I _D	Dark Current	H = 0, V _R = 10 mV		10	50	nA
R _{SH}	Shunt Resistance	H = 0, V _R = 10 mV	.2	1		Ω
TC R _{SH}	RSH Temp. Coefficient	H = 0, V _R = 10 mV		-8		% / °C
C _J	Junction Capacitance	H = 0, V _R = 0 V**		800	1000	pF
λ _{range}	Spectral Application Range	Spot Scan	350		1100	nm
λ _p	Spectral Response - Peak	Spot Scan		950		nm
V _{BR}	Breakdown Voltage	I = 10 μA	5	10		V
NEP	Noise Equivalent Power	V _R = 10 V @ Peak		5x10 ⁻¹⁴		W/√Hz
tr	Response Time	RL = 1 KΩ V _R = 0 V		750		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

[FORM NO. 100-PDB-V119 REV A]