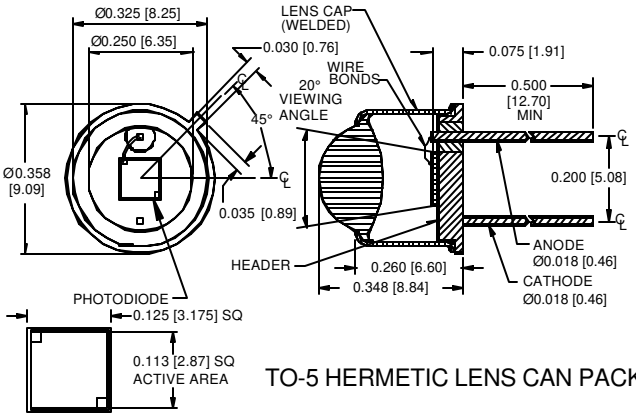
PHOTONIC DETECTORS INC.

Silicon Photodiode, Blue Enhanced Photovoltaic

(OP913WSL Industry Equivalent) Lens Type PDB-V119L

PACKAGE DIMENSIONS INCH [mm]



TO-5 HERMETIC LENS CAN PACKAGE

ACTIVE AREA = 7.95 mm²

FEATURES

- Narrow angle
- High speed
- Large active area
- Low dark current

DESCRIPTION

The **PDB-V119L** 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 lens window cap.

APPLICATIONS

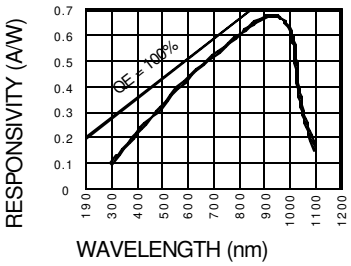
- Bar code detector
- Encoder sensor
- Laser detection
- Instrumentation

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		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_{SC}	Short Circuit Current	H = 100 fc, 2850 K	60	80		μA
I_D	Dark Current	H = 0, V_R = 10 mV		10	50	pA
R_{SH}	Shunt Resistance	H = 0, V_R = 10 mV	.2	1		GΩ
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
λrange	Spectral Application Range	Spot Scan	350		1100	nm
λp	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		$9x10^{-15}$		$W/\sqrt{Hz}$
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