# PHOTONIC DETECTORS INC.





#### PACKAGE DIMENSIONS INCH [mm] WINDOW CAP (WELDED) Ø0.325 [8.25] 0.168 [4.26] Ø0.250 [6.35] 0.030 [0.76] 0.075 [1.91] WIRE -0.500-[12.70] BONDS MIN ¢ 63 Ø0.358 [9.09] VIEWING 0.200 [5.08] ANGLE



# **APPLICATIONS**

- Instrumentation
- Industrial controls
- Laser detection
- Optical power meters

10 387777777 ANODE Ø0.018 [0.46]

CATHODE

Ø0.018 [0.46]

### **FEATURES** Low noise

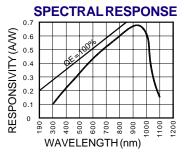
- Blue enhanced
- High shunt resistance
- High response

The PDB-V114 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.

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

DESCRIPTION

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SYMBOL	PARAMETER	MIN	MAX	UNITS			
Vbr	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			
IL	Light Current		0.5	mA			
1/16 inch from case for 3 sees may							



1/16 inch from case for 3 secs max

#### ELECTRO-OPTICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

SYMBOL	CHARACTERISTIC	TESTCONDITIONS	MIN	TYP	MAX	UNITS
lsc	Short Circuit Current	H = 100 fc, 2850 K	200	230		$\mu$ A
١D	Dark Current	H = 0, V <sub>R</sub> = 10 V		335	550	pА
Rsн	Shunt Resistance	$H = 0, V_{R} = 10 \text{ mV}$	.2	1		GΩ
TC Rsh	RSH Temp. Coefficient	$H = 0, V_{R} = 10 \text{ mV}$		-8		%/°C
CJ	Junction Capacitance	$H = 0, V_{R} = 0 V^{**}$		2000		pF
λrange	Spectral Application Range	Spot Scan	350		1100	nm
λρ	Spectral Response - Peak	Spot Scan		950		nm
Vbr	Breakdown Voltage	I = 10 μA	30	50		V
NEP	Noise Equivalent Power	V <sub>R</sub> = 10 mV @ Peak		2x10 <sup>-14</sup>		W/ √ Hz
tr	Response Time	$RL = 1 K\Omega V_R = 0 V$		900		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-V114 REV B]