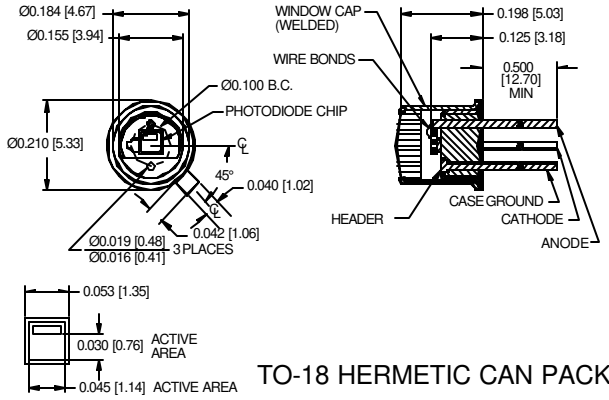
PHOTONIC DETECTORS INC.

Silicon Photodiode, Blue Enhanced Photoconductive
Isolated Type PDB-C102-I

PACKAGE DIMENSIONS INCH [mm]



TO-18 HERMETIC CAN PACKAGE

ACTIVE AREA = .87 mm²

FEATURES

- High speed
- Low capacitance
- Blue enhanced
- Low dark current

DESCRIPTION

The **PDB-C102-I** is a silicon, PIN planar diffused, blue enhanced photodiode. Ideal for high speed photoconductive applications. Packaged in a hermetic TO-18 metal can with a flat window and isolated ground lead.

APPLICATIONS

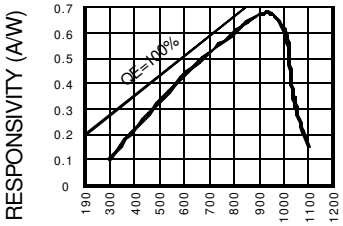
- Instrumentation
- Character recognition
- Laser detection
- Fiber optic

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

SYMBOL	PARAMETER	MIN	MAX	UNITS
V_{BR}	Reverse Voltage		100	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	8.5	9		**m**A
I_D	Dark Current	H = 0, V_R = 10 V		45	150	pA
R_{SH}	Shunt Resistance	H = 0, V_R = 10 mV	0.5	2		GΩ
TC R_{SH}	RSH Temp. Coefficient	H = 0, V_R = 10 mV		-8		% / °C
C_J	Junction Capacitance	H = 0, V_R = 10 V**		4		pF
λrange	Spectral Application Range	Spot Scan	350		1100	nm
λp	Spectral Response - Peak	Spot Scan		950		nm
V_{BR}	Breakdown Voltage	I = 10 **m**A	100	125		V
N EP	Noise Equivalent Power	V_R = 10 V @ Peak		$10x10^{-14}$		$W/\sqrt{Hz}$
tr	Response Time	RL = 1 KΩ V_R = 50 V		3.0		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