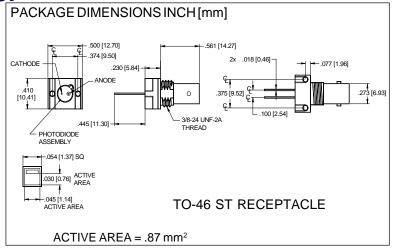
PHOTONIC Silicon Photodiode, Blue Enhanced Photoconductive **DETECTORS INC.** Hermetic Fiber Optic Detector Type PDB-C502-ST





FEATURES

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

DESCRIPTION

The PDB-C502-ST is a silicon, PIN planar diffused, blue enhanced photodiode. Ideal for high speed photoconductive applications. Packaged in a hermetic, TO-46 ST receptacle.

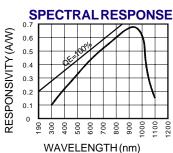
APPLICATIONS

- Industrial controls
- Video systems
- Laser power monitors
- Fiber optic links

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

SYMBOL	PARAMETER	MIN	MAX	UNITS	
$V_{\mathtt{BR}}$	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	
IL	Light Current		0.5	mA	

^{*1/16} inch from case for 3 secs max



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	$H = 0, V_R = 10 \text{ mV}$	0.5	2		GΩ
TCR _{SH}	RSH Temp. Coefficient	$H = 0, V_R = 10 \text{ mV}$		-8		%/°C
C _J	Junction Capacitance	H = 0, V _R = 10 V**		4		pF
λrange	Spectral Application Range	Spot Scan	350		1100	nm
λр	Spectral Response - Peak	Spot Scan		950		nm
V _{BR}	Breakdown Voltage	I = 10 m A	100	125		V
NEP	Noise Equivalent Power	V _R = 10 V @ Peak		10x10 ⁻¹⁴		W/ √Hz
tr	Response Time	$RL = 1 K\Omega V_R = 50 V$		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