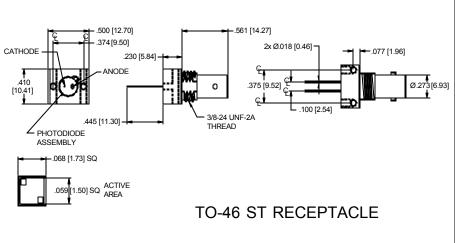
# PHOTONIC Silicon Photodiode, Blue Enhanced Photoconductive DETECTORS INC. Hermetic Fiber Optic Detector Type PDB-C503-ST



PACKAGE DIMENSIONS INCH [mm]



ACTIVE AREA = 2.03 mm<sup>2</sup>

## FEATURES

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

### DESCRIPTION

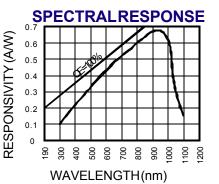
The **PDB-C503-ST** is a silicon, PIN planar diffused, blue enhanced photodiode. Ideal for high speed photoconductive applications. Packaged in a hermetic, TO-46 ST receptacle.

# APPLICATIONSIndustrial controls

- Video systems
- Laser power monitors
- Fiber optic links

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

SYMBOL	PARAMETER	MIN	MAX	UNITS
V <sub>BR</sub>	Reverse Voltage		100	V
T <sub>STG</sub>	Storage Temperature	-55	+150	°C
T <sub>o</sub>	Operating Temperature Range	-40	+125	°C
Τ <sub>s</sub>	Soldering Temperature*		+240	°C
Ι	Light Current		500	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
l <sub>sc</sub>	Short Circuit Current	H = 100 fc, 2850 K	20	25		$\mu$ A
I <sub>D</sub>	Dark Current	H = 0, V <sub>R</sub> = 10 V		65	250	pА
R <sub>SH</sub>	Shunt Resistance	H = 0, V <sub>R</sub> = 10 mV	0.5	2		GΩ
TCR <sub>SH</sub>	RSH Temp. Coefficient	H = 0, V <sub>R</sub> = 10 mV		-8		% / °C
CJ	Junction Capacitance	H = 0, V <sub>R</sub> = 10 V**		7		pF
λrange	Spectral Application Range	Spot Scan	350		1100	nm
λρ	Spectral Response - Peak	Spot Scan		950		nm
V <sub>BR</sub>	Breakdown Voltage	I = 10 μA	100	125		V
NEP	Noise Equivalent Power	V <sub>R</sub> = 10 V @ Peak		1.0x10 <sup>-14</sup>		W/ √ Hz
tr	Response Time	RL = 1 K $\Omega$ V <sub>R</sub> = 50 V		5		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=1MHz [FORM NO. 100-PDB-C503-ST REV A]