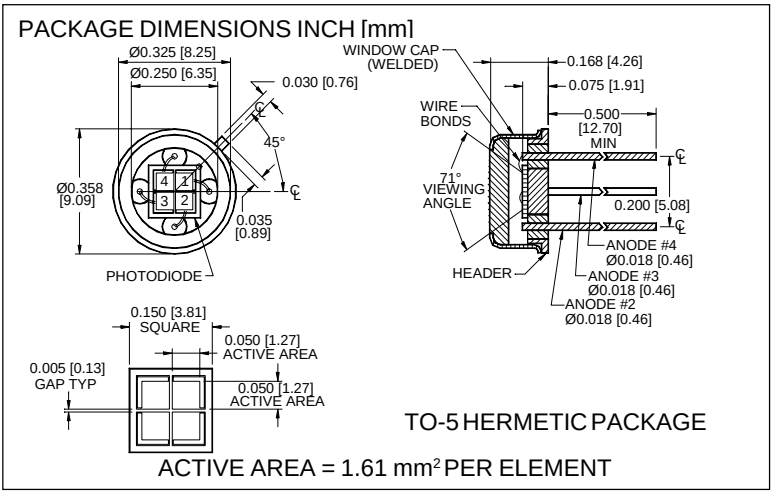
PHOTONIC DETECTORS INC.

Silicon Photodiode, Blue Enhanced Photoconductive (PIN-Spot-4DIndustry Equivalent Quadrant Type PDB-C203



FEATURES

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

DESCRIPTION

The **PDB-C203** is a silicon, pin planar diffused, blue enhanced quadrant photo-diode. Ideal for high speed photoconductive applications. Packaged in a hermetic TO-5 metal can with a flat window.

APPLICATIONS

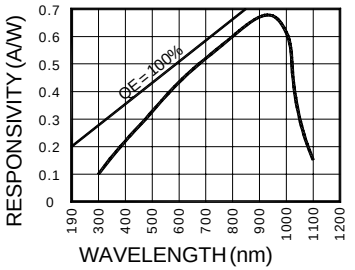
- Optical alignment
- Position sensing
- Edge sensing
- Instrumentation

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	30	50		μA
I_D	Dark Current	H = 0, V_R = 10 V		.5	1.0	nA
R_{SH}	Shunt Resistance	H = 0, V_R = 10 mV	250	500		MΩ
TC R_{SH}	R_{SH} Temp. Coefficient	H = 0, V_R = 10 mV		-8		% / °C
C_J	Junction Capacitance	H = 0, V_R = 10 V		8		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	50	75		V
NEP	Noise Equivalent Power	V_R = 10 V @ Peak		8.5×10^{-15}		W/ $\sqrt{Hz}$
tr	Response Time	RL = 1 KΩ V_R = 10 V		7	10	nS