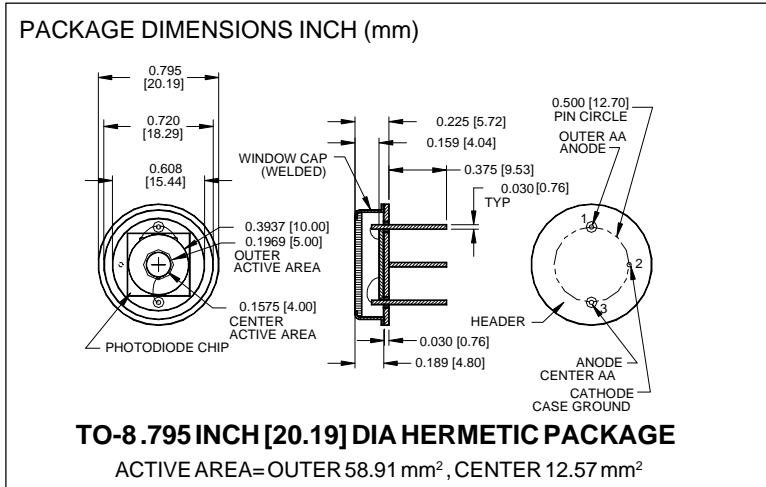


PHOTONIC DETECTORS INC.



Silicon Photodiode, Blue Enhanced Ring Detector Type PDB-C210



FEATURES

- Blue enhanced
- Photovoltaic type
- Photoconductive type
- High quantum efficiency

DESCRIPTION:

The **PDB-C210** is a two element "Ring Detector". The center and outer active areas are separated by a .0394 inch (1.0 mm) gap. Designed for either photovoltaic low noise or photoconductive high speed applications. It is packaged in a hermetic jumbo TO-8 metal can with a flat glass window.

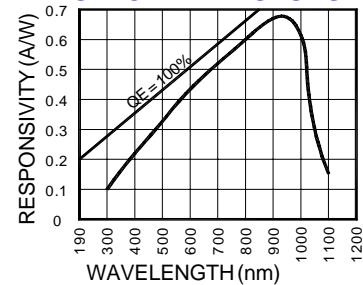
APPLICATIONS

- Medical Sensor
- Position sensor
- Industrial controls
- Instrumentation

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

SYMBOL	PARAMETER	CENTER		OUTER		UNITS
		MIN	MAX	MIN	MAX	
V _{BR}	Reverse Voltage		75		25	V
T _{STG}	Storage Temperature	-40	+125	-40	+125	°C
T _O	Operating Temperature Range	-40	+100	-40	+100	°C
T _S	Soldering Temperature		+224		+224	°C
I _L	Light Current		500		500	mA

SPECTRAL RESPONSE



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

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	CENTER			OUTER			UNITS
			MIN	TYP	MAX	MIN	TYP	MAX	
I _{SC}	Short Circuit Current	H = 100 fc, 2850 K	240			900			mA
I _D	Dark Current	H = 0, V _R = 10 V			25			100	nA
R _{SH}	Shunt Resistance	H = 0, V _R = 10 mV	200	500		25	50		MΩ
TC R _{SH}	R _{SH} Temp. Coefficient	H = 0, V _R = 10 mV		-8			-8		% / °C
C _J	Junction Capacitance	H = 0, V _R = 10 V**		175			800		pF
λ _{range}	Spectral Application Range	Spot Scan	350		1100	350		1100	nm
λ _p	Spectral Response - Peak	Spot Scan		940			940		nm
V _{BR}	Breakdown Voltage	I = 10 mA		50			50		V
NEP	Noise Equivalent Power	V _R = 10 V @ Peak	2.5x10 ⁻¹³ TYP			6.0x10 ⁻¹³ TYP			W/ √Hz
t _r	Response Time	RL = 1 KΩ V _R = 50 V		20			35		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-C210 REV N/C]