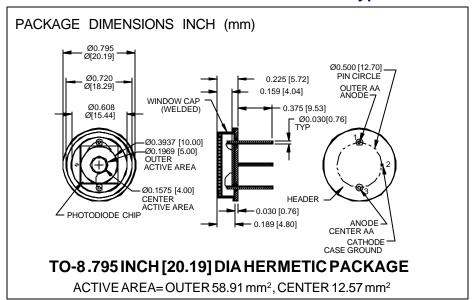
# PHOTONIC DETECTORS INC.



# Silicon Photodiode, Blue Enhanced Ring Detector Type PDB-C210



**RESPONSIVITY (A/W)** 

### **FEATURES**

- Blue enhanced
- Photovoltaic type
- Photoconductive type
- High quantum efficiency in a hermetic j
- Detector". The center and outer active areas are seperated by a .0394 inch (1.0 mm) gap. Designed for either photovoltaic low

DESCRIPTION: The PDB-C210 is a two element "Ring

- noise or photoconductive high speed applications. It is packaged
- in a hermetic jumbo TO-8 metal can with a flat glass window.

APPLICATIONS

Position sensor

Industrial controls

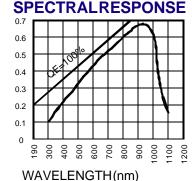
Instrumentation

Medical Sensor

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ABSOLUTE MAXIMUM RATING (TA=25°C unless otherwise noted)											
SYMBOL	PARAMETER .	CENTER		OUTER		UNITS					
		MIN	MAX	MIN	MAX	onaro					
Vbr	Reverse Voltage		75		25	V					
T <sub>STG</sub>	Storage Temperature	-40	+125	-40	+125	°C					
То	Operating Temperature Range	-40	+100	-40	+100	°C					
Ts	Soldering Temperature		+224		+224	°C					
Ι	Light Current		500		500	mA					



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

SYMBOL		TESTCONDITIONS	CENTER			OUTER			
	CHARACTERISTIC		MIN	TYP	MAX	MIN	TYP	MAX	UNITS
lsc	Short Circuit Current	H = 100 fc, 2850 K	240			900			μA
ΙD	Dark Current	H = 0, V <sub>R</sub> = 10 V			25			100	nA
Rsh	Shunt Resistance	H = 0, V <sub>R</sub> = 10 mV	200	500		25	50		MΩ
TC Rsh	RsH Temp. Coefficient	H = 0, V <sub>R</sub> = 10 mV		-8			-8		% / °C
CJ	Junction Capacitance	H = 0, V <sub>R</sub> = 10 V**		175			800		pF
λrange	Spectral Application Range	Spot Scan	350		1100	350		1100	nm
λр	Spectral Response - Peak	Spot Scan		940			940		nm
Vbr	Breakdown Voltage	I = 10 µµA		50			50		V
NEP	Noise Equivalent Power	V <sub>R</sub> = 10 V @ Peak	2.5x10 <sup>-13</sup> TYP		6.0x10 <sup>-13</sup> TYP			W/ $\sqrt{_{Hz}}$	
tr	Response Time	$RL = 1 K\Omega V_R = 50 V$		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 [FORMNO.100-PDB-C210 REVA]