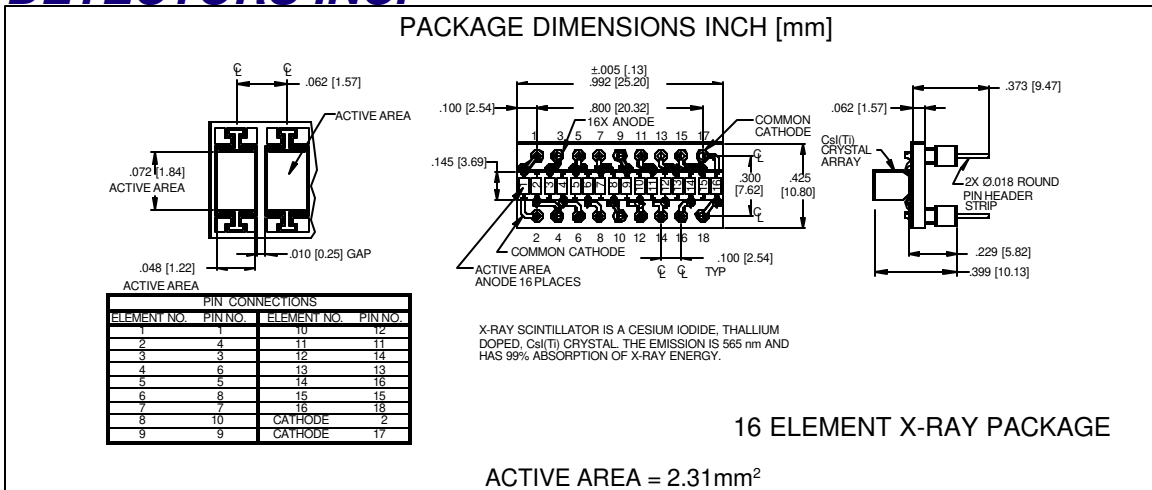


PHOTONIC DETECTORS INC.

X-RAY, Silicon Photodiode Array, Photoconductive (with CsI(Tl) scintillation crystals) Type PDB-C216-C



FEATURES

- .062 inch centers
- Stackable
- CsI(Tl) crystals
- Low capacitance

DESCRIPTION

The **PDB-C216-C** is a common cathode, monolithic silicon PIN photodiode 16 element array. Designed to be stacked end to end to form a line of pixels. Supplied with X-Ray CsI(Tl) scintillation crystals.

APPLICATIONS

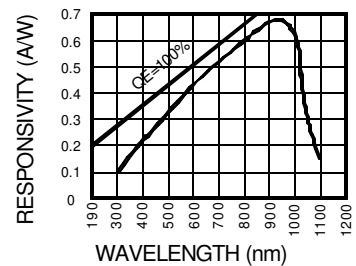
- Luggage X-ray
- X-Ray scanner
- X-Ray inspection

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

SYMBOL	PARAMETER	MIN	MAX	UNITS
V _{BR}	Reverse Voltage		50	V
T _{STG}	Storage Temperature	-40	+100	°C
T _O	Operating Temperature Range	-20	+75	°C
T _S	Soldering Temperature*		+265	°C
I _L	Light Current		500	mA

*1/16 inch from case for 3 secs max

SPECTRAL RESPONSE



ELECTRO-OPTICAL CHARACTERISTICS (TA=25°C unless otherwise noted, without scintillator)

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _{SC}	Short Circuit Current	H = 100 fc, 2850 K	18	28		mA
I _D	Dark Current	H = 0, V _R = 1 V		1.0	5.0	nA
R _{SH}	Shunt Resistance	H = 0, V _R = 10 mV	100	200		MΩ
TC R _{SH}	RSH Temp. Coefficient	H = 0, V _R = 10 mV		-8		% / °C
C _J	Junction Capacitance	H = 0, V _R = 0 V**		40	60	pF
λ _{range}	Spectral Application Range	Spot Scan	350		1100	nm
λ _p	Spectral Response - Peak	Spot Scan		950		nm
V _{BR}	Breakdown Voltage	I = 10 mA	15	30		V
NEP	Noise Equivalent Power	V _R = 10 V @ Peak		2x10 ⁻¹⁴		W/√Hz
tr	Response Time	RL = 50 Ω V _R = 10 V		800		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