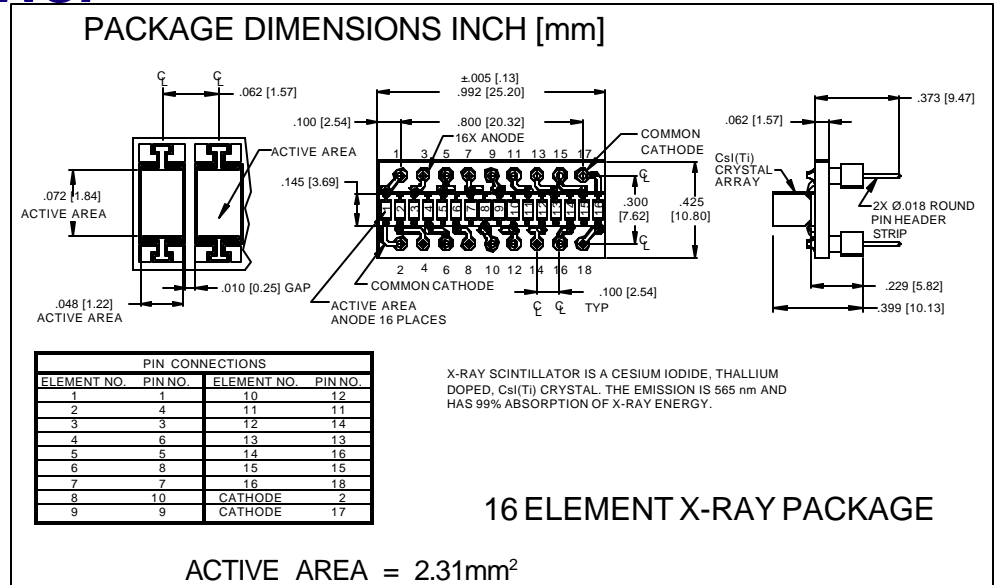
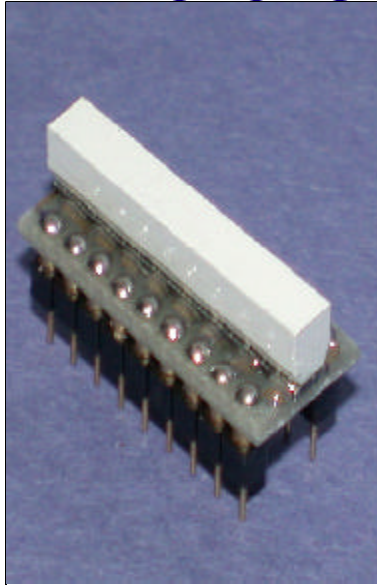


PHOTONIC DETECTORS INC.

X-RAY, Silicon Photodiode Array, Photovoltaic (with CsI(Tl) scintillation crystals) Type PDB-V216-C



FEATURES

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

DESCRIPTION

The **PDB-V216-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

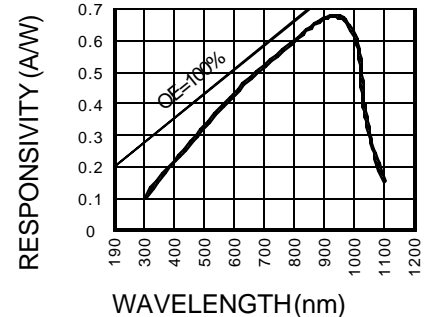
- Luggage X-ray
- X-Ray scanner
- X-Ray inspection

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		μA
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	200	400		MΩ
TCR _{SH}	RSH Temp. Coefficient	H = 0, V _R = 10 mV		-8		% / °C
C _J	Junction Capacitance	H = 0, V _R = 0 V**		300	400	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	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		50		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-V216-C-REV D]