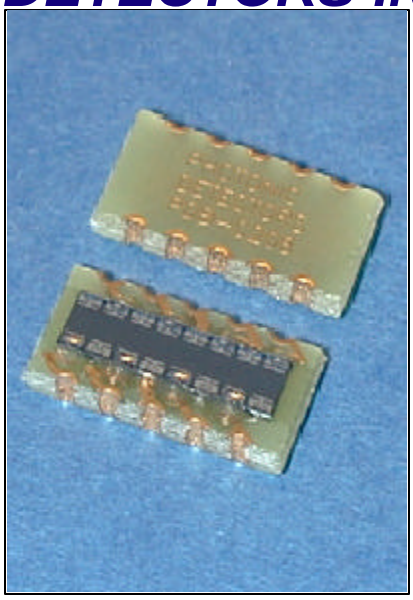
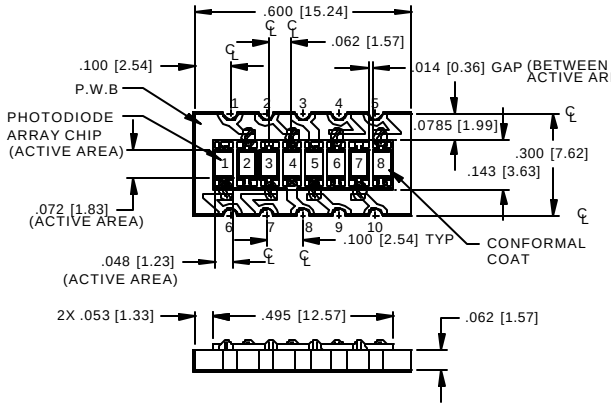
PHOTONIC DETECTORS INC.

Silicon Photodiode Array, Photoconductive
8 element Type PDB-C208



PACKAGE DIMENSIONS INCH (mm)



PIN CONNECTIONS	
ELEMENT NO.	PIN NO.
1	6
2	1
3	7
4	2
5	9
6	4
7	10
8	5
CATHODE	3
CATHODE	8

SURFACE MOUNT PCB PACKAGE

ACTIVE AREA = 2.31 mm^2 per element

FEATURES

- .062 inch centers
- Low cost
- Blue enhanced
- Low dark current

DESCRIPTION

The **PDB-C208** is a silicon, PIN planar diffused, blue enhanced linear array photodiode. Ideal for high speed photoconductive applications. Packaged in low profile surface mount PCB substrate.

APPLICATIONS

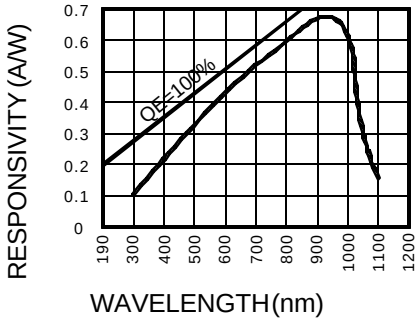
- Cardreader
- Scanners
- Instrumentation
- Characterrecognition

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		0.5	mA

*edge of PCB 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	18	28		μA
I_D	Dark Current	H = 0, V_R = 5 V		5	50	nA
R_{SH}	Shunt Resistance	H = 0, V_R = 10 mV	100	200		MΩ
TC R_{SH}	R_{SH} Temp. Coefficient	H = 0, V_R = 10 mV		-8		% / °C
C_J	Junction Capacitance	H = 0, V_R = 0 V**		40	60	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		$3x10^{-14}$		$W/\sqrt{Hz}$
tr	Response Time	RL = 50 Ω V_R = 10 V		15		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