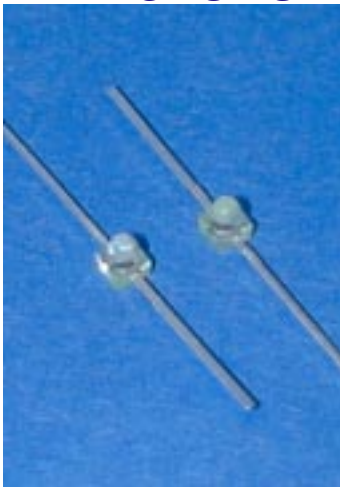
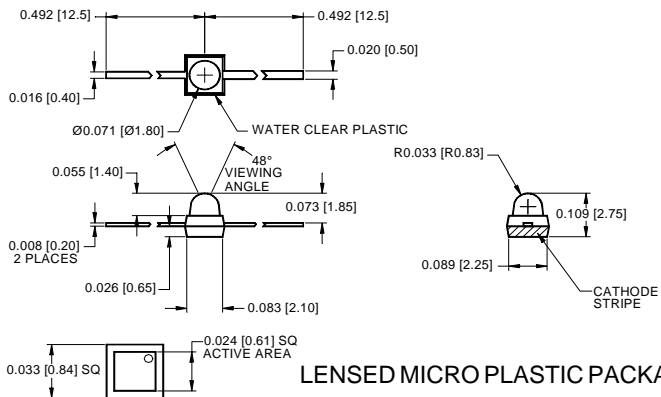


# PHOTONIC DETECTORS INC. Silicon Photodiode, Blue Enhanced Photoconductive Lensed micro-size plastic package, Type PDB-C144



## PACKAGE DIMENSIONS INCH [mm]



LENSED MICRO PLASTIC PACKAGE

ACTIVE AREA = 0.36 mm<sup>2</sup>

## FEATURES

- Low cost
- Micro package
- High speed

## DESCRIPTION

The **PDB-C144** is a silicon, PIN planar diffused, blue enhanced photodiode. Ideal for high speed photoconductive applications. Packaged in a micro-sized, water clear plastic package with optical lens.

## APPLICATIONS

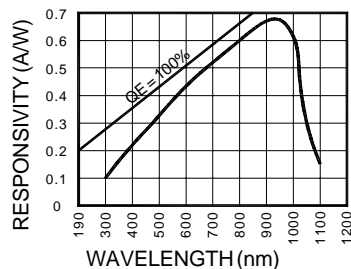
- Data links
- Smoke detectors
- Scanners

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

SYMBOL	PARAMETER	MIN	MAX	UNITS
V <sub>BR</sub>	Reverse Voltage		50	V
T <sub>STG</sub>	Storage Temperature	-40	+100	°C
T <sub>O</sub>	Operating Temperature Range	-40	+80	°C
T <sub>S</sub>	Soldering Temperature*		+240	°C
I <sub>L</sub>	Light Current		0.5	mA

\*1/16 inch from case for 3 secs max

## SPECTRAL RESPONSE



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

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I <sub>SC</sub>	Short Circuit Current	E = 1000 Lux, 2850 K	8	10		μA
I <sub>D</sub>	Dark Current	H = 0, V <sub>R</sub> = 10 V		2	10	nA
R <sub>SH</sub>	Shunt Resistance	H = 0, V <sub>R</sub> = 10 mV	100	500		MΩ
TCR <sub>SH</sub>	R <sub>SH</sub> Temp. Coefficient	H = 0, V <sub>R</sub> = 10 mV		-8		% / °C
C <sub>J</sub>	Junction Capacitance	H = 0, V <sub>R</sub> = 0 V**		25	30	pF
λ <sub>range</sub>	Spectral Application Range	Spot Scan	350		1100	nm
λ <sub>p</sub>	Spectral Response - Peak	Spot Scan		950		nm
V <sub>BR</sub>	Breakdown Voltage	I = 10 μA	30	100		V
NEP	Noise Equivalent Power	V <sub>R</sub> = 10 V @ Peak		10x10 <sup>-15</sup>		W/√Hz
tr	Response Time	RL = 1 KΩ V <sub>R</sub> = 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

[FORM NO. 100-PDB-C144 REV A]