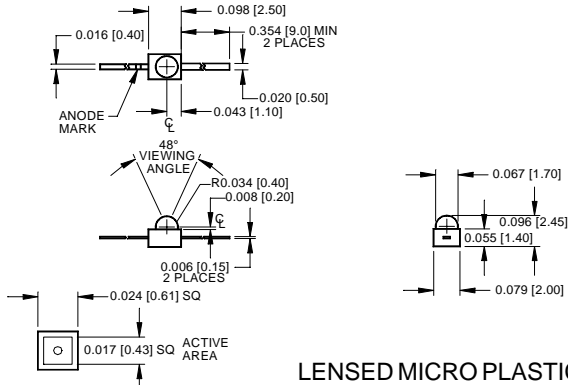


PHOTONIC DETECTORS INC.

Silicon Photodiode, Blue Enhanced Photoconductive Lensed micro-size plastic package, Type PDB-C145



PACKAGE DIMENSIONS INCH [mm]



LENSED MICRO PLASTIC PACKAGE

ACTIVE AREA = 0.17 mm²

FEATURES

- Low cost
- Micro package
- High speed

DESCRIPTION

The **PDB-C145** 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

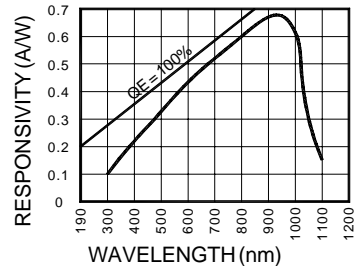
- Data links
- Smoke detectors
- Scanners

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

SYMBOL	PARAMETER	MIN	MAX	UNITS
V _{BR}	Reverse Voltage		50	V
T _{STG}	Storage Temperature	-40	+100	°C
T _O	Operating Temperature Range	-40	+80	°C
T _S	Soldering Temperature*		+240	°C
I _L	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 _{SC}	Short Circuit Current	E = 1000 Lux, 2850 K	8	10		μA
I _D	Dark Current	H = 0, V _R = 10 V		2	30	nA
R _{SH}	Shunt Resistance	H = 0, V _R = 10 mV	100	500		MΩ
TCR _{SH}	R _{SH} Temp. Coefficient	H = 0, V _R = 10 mV		-8		% / °C
C _J	Junction Capacitance	H = 0, V _R = 0 V**		5	15	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 μA	30	100		V
NEP	Noise Equivalent Power	V _R = 10 V @ Peak		4x10 ⁻¹⁵		W/√Hz
tr	Response Time	RL = 1 KΩ V _R = 10 V		6.0	10.0	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-C145 REV AJ]