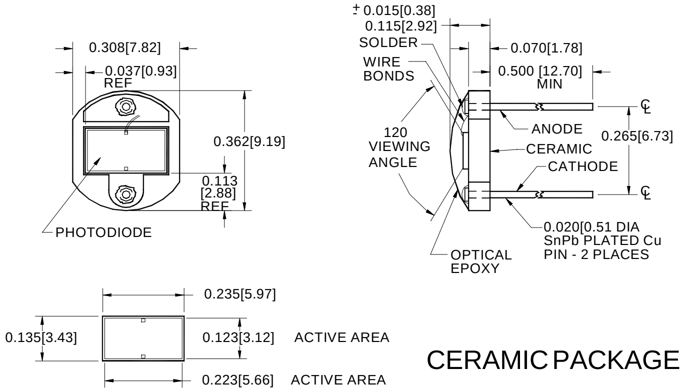
PHOTONIC DETECTORS INC.

Silicon Photodiode, U.V. Enhanced Photoconductive
Type PDU-C107

PACKAGE DIMENSIONS INCH (mm)



CERAMIC PACKAGE

ACTIVE AREA = 17.74 mm^2

FEATURES

- U.V. enhanced
- Photoconductive
- High speed
- Ceramic package

DESCRIPTION

The **PDU-C107** is a silicon, PIN planar diffused, U.V. enhanced photodiode. Ideal for high speed photoconductive applications. Packaged on a two lead ceramic substrate with a clear U.V. epoxy glob top.

APPLICATIONS

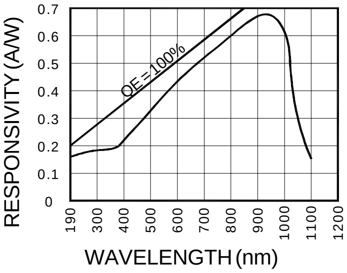
- U.V. exposure meter
- Water purification
- Fluorescence
- U.V. A & B meters

ABSOLUTE MAXIMUM RATING (TA=25^{O}C unless otherwise noted)

SYMBOL	PARAMETER	MIN	MAX	UNITS
V_{BR}	Reverse Voltage		100	V
T_{STG}	Storage Temperature	-40	+100	^{O}C
T_O	Operating Temperature Range	-40	+100	^{O}C
T_S	Soldering Temperature*		+240	^{O}C
I_L	Light Current		0.5	mA

*1/16 inch from case for 3 secs max

SPECTRAL RESPONSE



ELECTRO-OPTICAL CHARACTERISTICS (TA=25^{O}C unless otherwise noted)

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{SC}	Short Circuit Current	H = 100 fc, 2850 K	190	235		m A
I_D	Dark Current	H = 0, V_R = 5 V		5	50	nA
R_{SH}	Shunt Resistance	H = 0, V_R = 10 mV	1000	200		MΩ
TC R_{SH}	RSH Temp. Coefficient	H = 0, V_R = 10 mV		-8		% / ^{o}C
C_J	Junction Capacitance	H = 0, V_R = 10 V**		100		pF
λrange	Spectral Application Range	Spot Scan	250		1100	nm
λp	Spectral Response - Peak	Spot Scan		850		nm
V_{BR}	Breakdown Voltage	I = 10 mA	50	100		V
NEP	Noise Equivalent Power	V_R = 10 V @ Peak		$3.0\text{x}10^{-13}$		W/ $\sqrt{\text{Hz}}$
tr	Response Time	RL = 1 KΩ V_R = 50 V		20		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