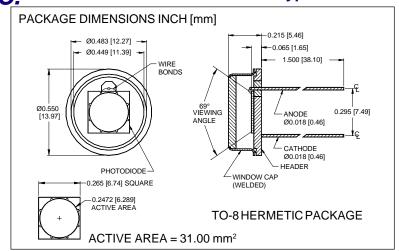
# PHOTONIC DETECTORS INC.

## Silicon Photodiode, U.V. Enhanced Photovoltaic Type PDU-V108





#### **FEATURES**

- Low noise
- U.V. enhanced
- High shunt resistance
- Quartz windows

#### **DESCRIPTION**

The **PDU-V108** is a silicon, PIN planar diffused, U.V. enhanced photodiode. Ideal for low noise photovoltaic applications. Packaged in a hermetic TO-8 metal can with a flat quartz window.

#### **APPLICATIONS**

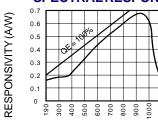
- Spectrometers
- Fluorescent analysers
- U.V. meters
- Colorimeters

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

SYMBOL	PARAMETER	MIN	MAX	UNITS
V <sub>BR</sub>	Reverse Voltage		75	V
T <sub>STG</sub>	Storage Temperature	-55	+150	∘C
To	Operating Temperature Range	-40	+125	∘C
Ts	Soldering Temperature*		+240	∘C
IL	Light Current		0.5	mA

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

### **SPECTRAL RESPONSE**



WAVELENGTH (nm)

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

SYMBOL	CHARACTERISTIC	TESTCONDITIONS	MIN	TYP	MAX	UNITS
Isc	Short Circuit Current	H = 100 fc, 2850 K	375	430		$\mu$ A
ΙD	Dark Current	$H = 0$ , $V_R = 10 \text{ mV}$		10	50	pA
Rsh	Shunt Resistance	H = 0, V <sub>R</sub> = 10 mV	.2	1		GΩ
TC Rsh	Rsн Temp. Coefficient	H = 0, V <sub>R</sub> = 10 mV		-8		%/℃
C∍	Junction Capacitance	H = 0, V <sub>R</sub> = 0 V**		2500		pF
λrange	Spectral Application Range	Spot Scan	190		1100	nm
R	Responsivity	$V_R = 0 \text{ V}, \ \lambda = 254 \text{ nm}$	.12	.18		A/W
V <sub>BR</sub>	Breakdown Voltage	I = 10 μA	5	10		V
NEP	Noise Equivalent Power	V <sub>R</sub> = 10 mV @ Peak		5x10 <sup>-14</sup>		W/ √ Hz
tr	Response Time	RL = 1 KΩ V <sub>R</sub> = 0 V		950		nS