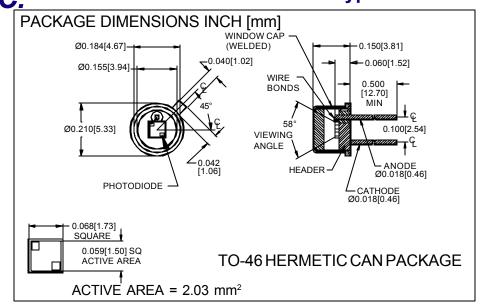
PHOTONIC DETECTORS INC.

Silicon Photodiode, U.V. Enhanced Photovoltaic Type PDU-V103





FEATURES

- Low noise
- U.V. enhanced
- High shunt resistance
- U.V. window

DESCRIPTION

The **PDU-V103** is a silicon, PIN planar diffused, U.V. enhanced photodiode. Ideal for low noise photovoltaic applications. Packaged in a hermetic TO-46 metal can with a flat U.V. transmitting window.

APPLICATIONS

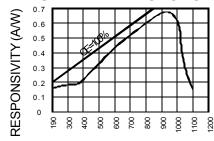
- Spectrometers
- Fluorescent analysers
- U.V. meters
- Colorimeters

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

SYMBOL	PARAMETER	MIN	MAX	UNITS
V _{ER}	Reverse Voltage		75	V
T _{STG}	Storage Temperature	-55	+150	∘C
T _O	Operating Temperature Range	-40	+125	⊙C
T _s	Soldering Temperature*		+240	∘C
IL	Light Current		500	mA

^{*1/16} inch from case for 3 secs max

SPECTRALRESPONSE



WAVELENGTH(nm)

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

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SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS			
l _{sc}	Short Circuit Current	H = 100 fc, 2850 K	20	24		μ A			
I _D	Dark Current	$H = 0, V_R = 10 \text{ mV}$		2	10	pA			
R _{SH}	Shunt Resistance	$H = 0, V_R = 10 \text{ mV}$	1	5		GΩ			
TCR _{sH}	RSH Temp. Coefficient	H = 0, V _R = 10 mV		-8		% / ℃			
C _J	Junction Capacitance	$H = 0, V_R = 0 V^{**}$		180		рF			
λrange	Spectral Application Range	Spot Scan	190		1100	nm			
R	Responsivity	V_R = 0 V, λ = 254 nm	.12	.18		A/W			
V _{BR}	Breakdown Voltage	I = 10 μA	5	10		V			
NEP	Noise Equivalent Power	V _R = 10 mV @ Peak		5.9x10 ⁻¹⁵		W/ √ Hz			
tr	Response Time	$RL = 1 K\Omega V_p = 0 V$		400		nS			