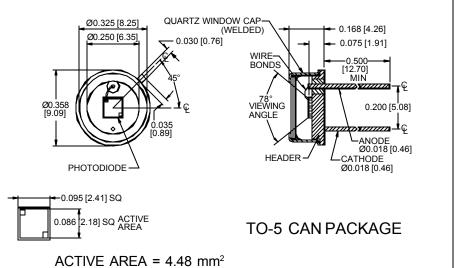
# PHOTONIC <u>DETECTORS I</u>NC.

# Silicon Photodiode, U.V. Enhanced Photovoltaic Type PDU-V105-Q



# PACKAGE DIMENSIONS INCH [mm]



**RESPONSIVITY (AW)** 

#### FEATURES

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

The **PDU-V105-Q** is a silicon, PIN planar diffused, U.V. enhanced photodiode. Ideal for low noise photovoltaic applications. Packaged in a TO-5 metal can with a flat quartz window.

## APPLICATIONS

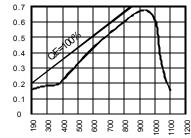
- Spectrometers
- Fluorescent analysers
- U.V. meters
- Colorimeters

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

DESCRIPTION

SYMBOL	PARAMETER	MIN	MAX	UNITS			
VBR	Reverse Voltage		75	V			
T <sub>STG</sub>	Storage Temperature	-55	+150	°C			
То	Operating Temperature Range	-40	+125	°C			
Ts	Soldering Temperature*		+240	°C			
Ι	Light Current		500	mA			

## SPECTRALRESPONSE



WAVELENGTH(nm)

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

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

SYMBOL	CHARACTERISTIC	TESTCONDITIONS	MIN	TYP	MAX	UNITS			
lsc	Short Circuit Current	H = 100 fc, 2850 K	30	50		μΑ			
ΙD	Dark Current	H = 0, V <sub>R</sub> = 10 mV		2	5	pА			
Rsh	Shunt Resistance	H = 0, V <sub>R</sub> = 10 mV	2	5		GΩ			
TC RSH	RSH Temp. Coefficient	H = 0, V <sub>R</sub> = 10 mV		-8		% / °C			
CJ	Junction Capacitance	H = 0, V <sub>R</sub> = 0 V**		500		pF			
λrange	Spectral Application Range	Spot Scan	190		1100	nm			
R	Responsivity	$\rm V_R$ = 0 V, $\lambda$ = 254 nm	.12	.18		A/W			
Vbr	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	$RL = 1 K\Omega V_R = 0 V$		500		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-PDU-V105-Q REV N/C]