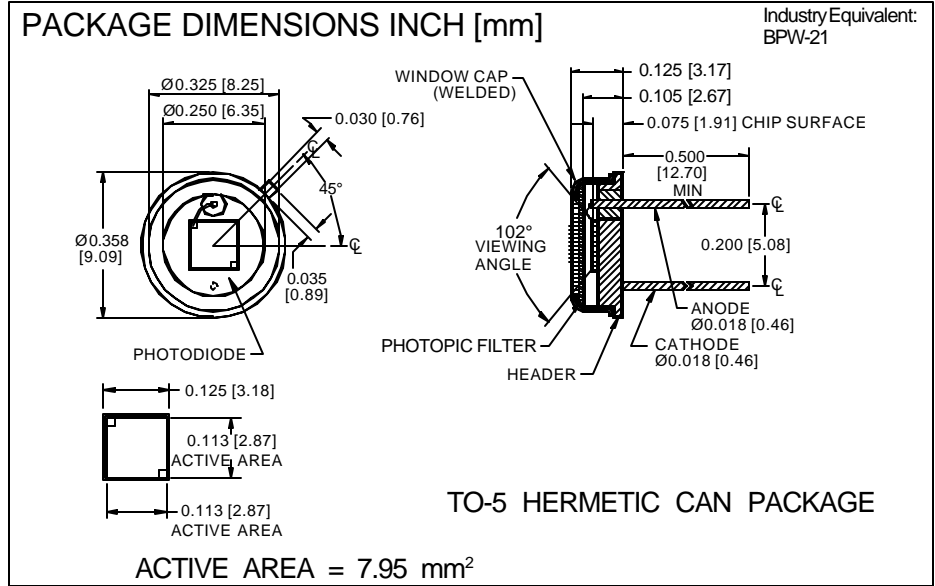


# PHOTONIC DETECTORS INC. Silicon Photodiode, Filter Combination Photoconductive Visible Spectral Response Range Type PDV-C406-LP



## FEATURES

- Wide view angle
- Human eye response
- Low noise, low capacitance
- Hermetic package

## DESCRIPTION

The **PDV-C406-LP** is a silicon, PIN planar diffused, photodiode with a visible spectral response range. The detector filter combination has a wide bandwidth designed to simulate the spectral response of the human eye. Packaged in a low profile hermetic TO-5 metal can.

## APPLICATIONS

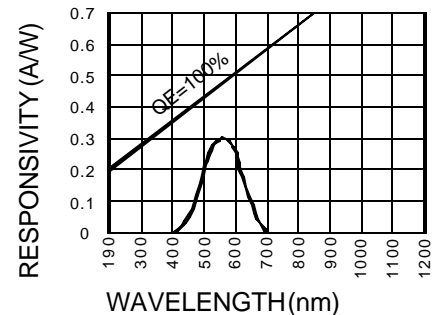
- Photometry
- Radiometry
- Film color processing

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

SYMBOL	PARAMETER	MIN	MAX	UNITS
V <sub>BR</sub>	Reverse Voltage		100	V
T <sub>STG</sub>	Storage Temperature	-50	+100	°C
T <sub>O</sub>	Operating Temperature Range	-40	+85	°C
T <sub>S</sub>	Soldering Temperature*		+240	°C
I <sub>L</sub>	Light Current		500	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 <sub>SC</sub>	Short Circuit Current	H = 100 fc, 2850 K	90	110		μA
I <sub>D</sub>	Dark Current	H = 0, V <sub>R</sub> = 10 V		5	20	nA
R <sub>SH</sub>	Shunt Resistance	H = 0, V <sub>R</sub> = 10 mV	150	300		MΩ
TC R <sub>SH</sub>	RSH Temp. Coefficient	H = 0, V <sub>R</sub> = 10 mV		-8		% / °C
C <sub>J</sub>	Junction Capacitance	H = 0, V <sub>R</sub> = 10 V**		60	150	pF
λ range	Spectral Application Range	Flooded	350		820	nm
λ <sub>p</sub>	Spectral Response Peak (FWHM)			550		nm
V <sub>BR</sub>	Breakdown Voltage	I = 10 μA	75	100		V
NEP	Noise Equivalent Power	V <sub>R</sub> = 10 V @ Peak		5x10 <sup>-14</sup>		W/√Hz
tr	Response Time	RL = 1 KΩ V <sub>R</sub> = 10 V		50		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-PDV-C406-LP REV A]