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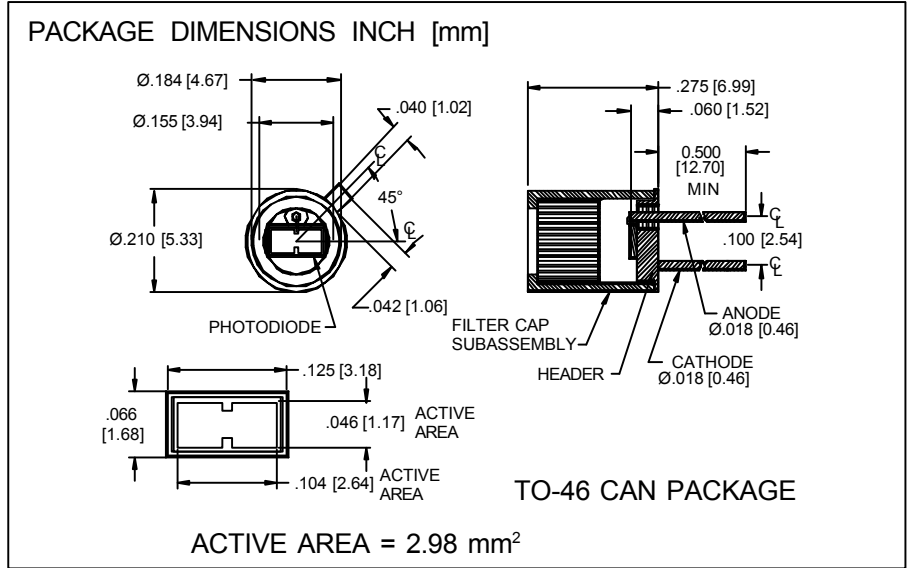
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[Advanced Photonix, Inc.](#)
[PDV-C405-46](#)

For any questions, you can email us directly:

sales@integrated-circuit.com

PHOTONIC DETECTORS INC. Silicon Photodiode, Filter Combination Photoconductive 500 nm (blue color) Type PDV-C405-46



FEATURES

- 500 nm CWL
- 70 nm FWHM
- Large active area

DESCRIPTION

The **PDV-C405-46** is a silicon, PIN planar diffused, photodiode with a blue color 500 nm +/- 2 nm CWL wide band interference filter and a wide 70 nm half bandwidth. Ideal for color meters, & photometry and radiometry measurement applications.

APPLICATIONS

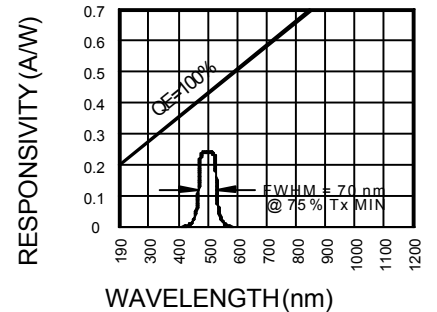
- Blue color matching
- Color meters
- Film processing

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

SYMBOL	PARAMETER	MIN	MAX	UNITS
V _{BR}	Reverse Voltage		100	V
T _{STG}	Storage Temperature	-20	+85	°C
T _O	Operating Temperature Range	-15	+70	°C
T _S	Soldering Temperature*		+240	°C
I _L	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 _{SC}	Short Circuit Current***	H = 100 fc, 2850 K	40	45		μA
I _D	Dark Current	H = 0, V _R = 10 V		.15	1.0	nA
R _{SH}	Shunt Resistance	H = 0, V _R = 10 mV	.5	1.0		GΩ
TC R _{SH}	R _{SH} Temp. Coefficient	H = 0, V _R = 10 mV		-8		% / °C
C _J	Junction Capacitance	H = 0, V _R = 10 V**		10		pF
CWL	Center Wavelength	(CWL, λ _o) +/- 2 nm		500		nm
HBW	Half Bandwidth	(FWHM)		70		nm
V _{BR}	Breakdown Voltage	I = 10 μA	70	100		V
NEP	Noise Equivalent Power	V _R = 10 V @ Peak		1.5x10 ⁻¹⁴		W/√Hz
tr	Response Time	RL = 1 KΩ V _R = 50 V		10		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, ***without filter

[FORM NO. 100-PDV-C405-46 REV N/C]