

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



# Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

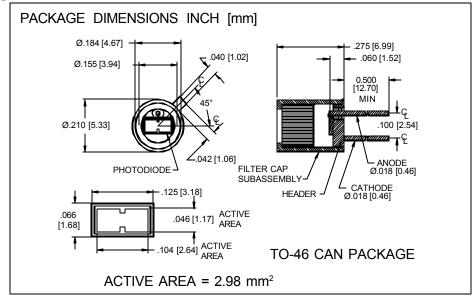






**PHOTONIC** Silicon Photodiode, Filter Combination Photoconductive **DETECTORS INC.** 500 nm (blue color) Type PDV-C405-46





RESPONSIVITY (A/W)

#### **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 measurment applications.

#### **APPLICATIONS**

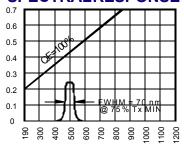
- Blue color matching
- Color meters
- Film processing

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

SYMBOL	PARAMETER	MIN	MAX	UNITS	
V <sub>BR</sub>	Reverse Voltage		100	V	
$T_{STG}$	Storage Temperature	-20	+85	∘C	
То	Operating Temperature Range	-15	+70	⊙C	
Ts	Soldering Temperature*		+240	∘C	
IL	Light Current		500	mA	

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

### **SPECTRALRESPONSE**



WAVELENGTH(nm)

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

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Isc	Short Circuit Current***	H = 100 fc, 2850 K	40	45		$\mu$ A
ΙD	Dark Current	H = 0, V <sub>R</sub> = 10 V		.15	1.0	nA
RsH	Shunt Resistance	H = 0, V <sub>R</sub> = 10 mV	.5	1.0		GΩ
TC Rsh	RsH Temp. Coefficient	H = 0, V <sub>R</sub> = 10 mV		-8		%/℃
CJ	Junction Capacitance	H = 0, V <sub>R</sub> = 10 V**		10		рF
CWL	Center Wavelength	(CWL, $\lambda$ o) +/- 2 nm		500		nm
HBW	Half Bandwidth	(FWHM)		70		nm
V <sub>BR</sub>	Breakdown Voltage	I = 10 μA	70	100		V
NEP	Noise Equivalent Power	V <sub>R</sub> = 10 V @ Peak		1.5x10 <sup>-14</sup>		W/√ <sub>Hz</sub>
tr	Response Time	RL = 1 KΩ V <sub>R</sub> = 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]