



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!



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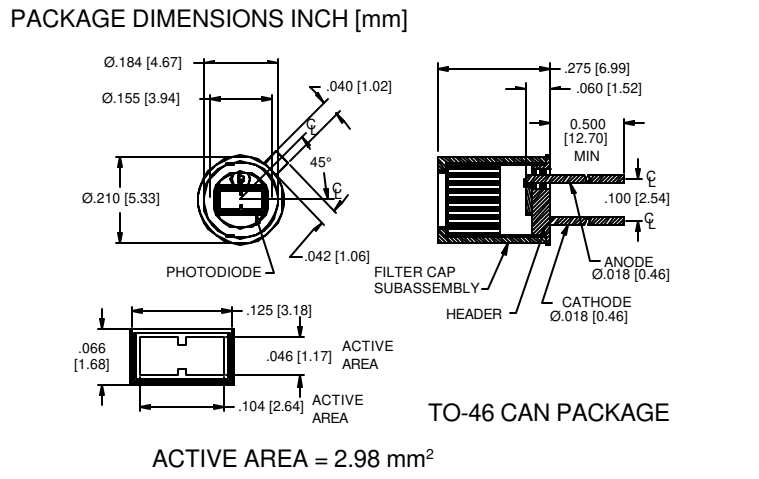
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PHOTONIC DETECTORS INC.

Silicon Photodiode, Filter Combination Photovoltaic 500 nm (blue color) Type PDV-V405-46



FEATURES

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

DESCRIPTION

The **PDV-V405-46** 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

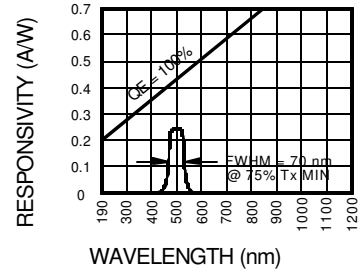
- Blue color matching
- Color meters
- Film processing

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

| SYMBOL | PARAMETER | MIN | MAX | UNITS |
|------------------|-----------------------------|-----|------|-------|
| V _{BR} | Reverse Voltage | | 75 | 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 | | 0.5 | 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 | 35 | 40 | | μA |
| I _D | Dark Current | H = 0, V _R = 10 V | | 150 | 300 | pA |
| R _{SH} | Shunt Resistance | H = 0, V _R = 10 mV | 1.0 | 6 | | GΩ |
| TC R _{SH} | R _{SH} Temp. Coefficient | H = 0, V _R = 10 mV | | -8 | | % / °C |
| C _J | Junction Capacitance | H = 0, V _R = 0 V** | | 340 | | pF |
| CWL | Center Wavelength | (CWL, λ ₀) +/- 2 nm | | 500 | | nm |
| HBW | Half Bandwidth | (FWHM) | | 70 | | nm |
| V _{BR} | Breakdown Voltage | I = 10 μA | 30 | 50 | | V |
| NEP | Noise Equivalent Power | V _R = 10 mV @ Peak | | 5x10 ⁻¹⁴ | | W/√Hz |
| tr | Response Time | RL = 1 KΩ V _R = 0 V | | 450 | | 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-V405-46 REV N/C]