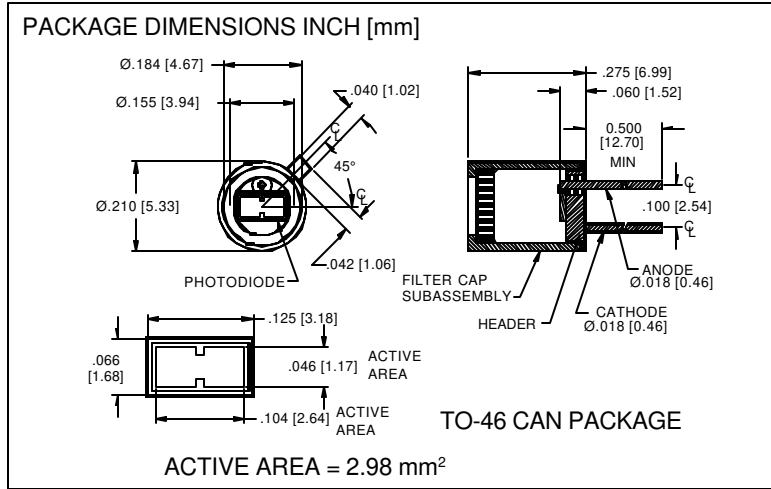


PHOTONIC DETECTORS INC.

Silicon Photodiode, Filter Combination Photovoltaic (photopic response) Type PDV-V400-46



FEATURES

- Large active area
- High transmission
- Low noise

DESCRIPTION

The **PDV-V400-46** is a silicon, PIN planar diffused, photodiode with a photopic response filter. The detector filter combination has a wide bandwidth designed to simulate the spectral response of the human eye. packaged in a TO-46 metal can.

APPLICATIONS

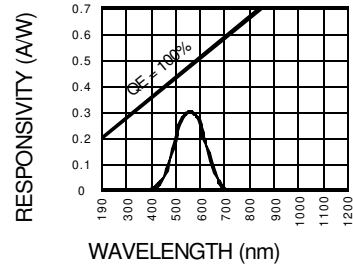
- Photometry
- Radiometry
- Film color processing

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		525		nm
HBW	Half Bandwidth	(FWHM)		150		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-V400-46 REV N/C]