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Stocking Distributor

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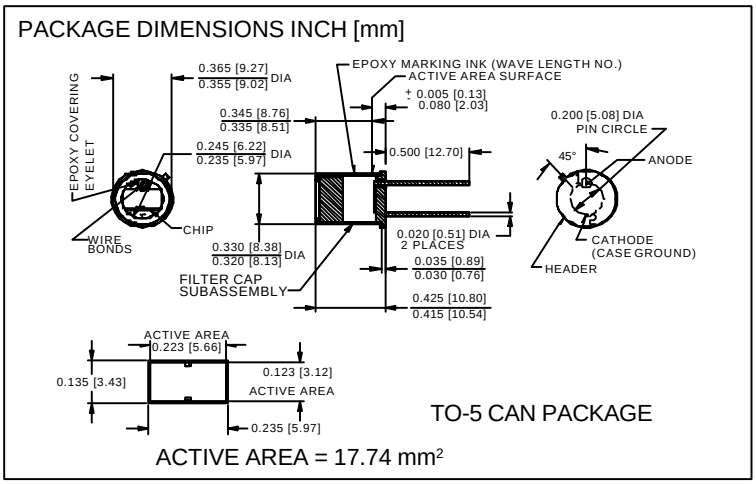
Advanced Photonix, Inc.
PDU-V425

For any questions, you can email us directly:
sales@integrated-circuit.com

PHOTONIC DETECTORS INC.

Silicon Photodiode, Filter Combination Photovoltaic (center wavelength 254 nm) Type PDU-V425



FEATURES

- High transmission
- 10^{-4} rejection
- +/- 2nm CWL

DESCRIPTION

The **PDU-V425** is a silicon, PIN planar diffused, U.V. enhanced photodiode with a narrow bandpass filter. The detector filter combination has a narrow 10 nm half band-width designed for low noise photovoltaic applications. Packaged in a TO-5 metal can.

APPLICATIONS

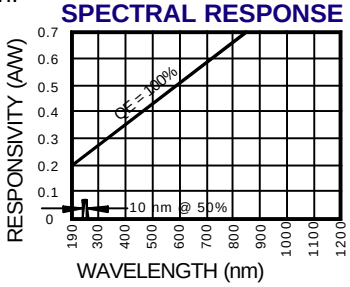
- Spectrophotometry
- Chemistry instrumentation
- Liquid chromatography

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

SYMBOL	PARAMETER	MIN	MAX	UNITS
V_{BR}	Reverse Voltage		50	V
T_{STG}	Storage Temperature	-20	+85	°C
To	Operating Temperature Range	-15	+70	°C
Ts	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	200	230		μA
I_D	Dark Current	H = 0, V_R = 10 mV		335	550	nA
R_{SH}	Shunt Resistance	H = 0, V_R = 10 mV	.20	1		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**		2000		pF
CWL	Center Wavelength	(CWL, λo) +/- 2 nm		254		nm
HBW	Half Bandwidth	(FWHM)		10		nm
V_{BR}	Breakdown Voltage	I = 10 μA	30	50		V
N EP	Noise Equivalent Power	V_R = 10 mV @ Peak		$2x10^{-14}$		W/ $\sqrt{Hz}$
tr	Response Time	RL = 1 KΩ V_R = 10 V		900		nS