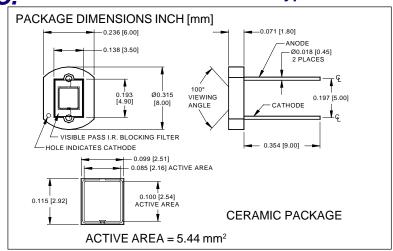
# PHOTONIC DETECTORS INC.

# Silicon Photodiode, Visible Light Detector Type PDV-V417





### **FEATURES**

- Visible response
- Low dark current
- Good linearity
- Low noise

## **DESCRIPTION**

The **PDV-V417** is a silicon PIN photodiode, with a built in visible pass, I.R. blocking optical filter. Housed in a black ceramic package with two leads. Designed for photovoltaic operation with 0 volt bias.

#### **APPLICATIONS**

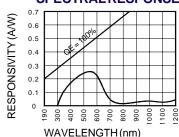
- Camera exposure meter
- Light meters
- Visible detector

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

SYMBOL	PARAMETER	MIN	MAX	UNITS
V <sub>BR</sub>	Reverse Voltage		10	V
T <sub>STG</sub>	Storage Temperature	-20	+80	∘C
To	Operating Temperature Range	-20	+60	∘C
Ts	Soldering Temperature*		+240	°C
I <sub>L</sub>	Light Current		0.5	mA

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

## **SPECTRAL RESPONSE**



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

SYMBOL	CHARACTERISTIC	TESTCONDITIONS	MIN	TYP	MAX	UNITS
Isc	Short Circuit Current	H = 100 fc, 2850 K	5	6.5		μΑ
ΙD	Dark Current	H = 0, V <sub>R</sub> = 1 V		3	10	pA
Rsн	Shunt Resistance	H = 0, V <sub>R</sub> = 10 mV	1.0	1.5		GΩ
TC Rsh	Rsн Temp. Coefficient	H = 0, V <sub>R</sub> = 10 mV		-8		%/℃
Сл	Junction Capacitance	H = 0, V <sub>R</sub> = 0 V**		650		pF
λrange	Spectral Application Range	Spot Scan	320		730	nm
λр	Spectral Response - Peak	Spot Scan		560		nm
V <sub>BR</sub>	Breakdown Voltage	I = 10 μA	10	15		V
NEP	Noise Equivalent Power	V <sub>R</sub> = 10 V @ Peak		5x10 <sup>-14</sup>		W/ √ Hz
tr	Response Time	RL = 1 KΩ V <sub>R</sub> = 10 V		500		nS