Excellent Integrated System Limited

Stocking Distributor
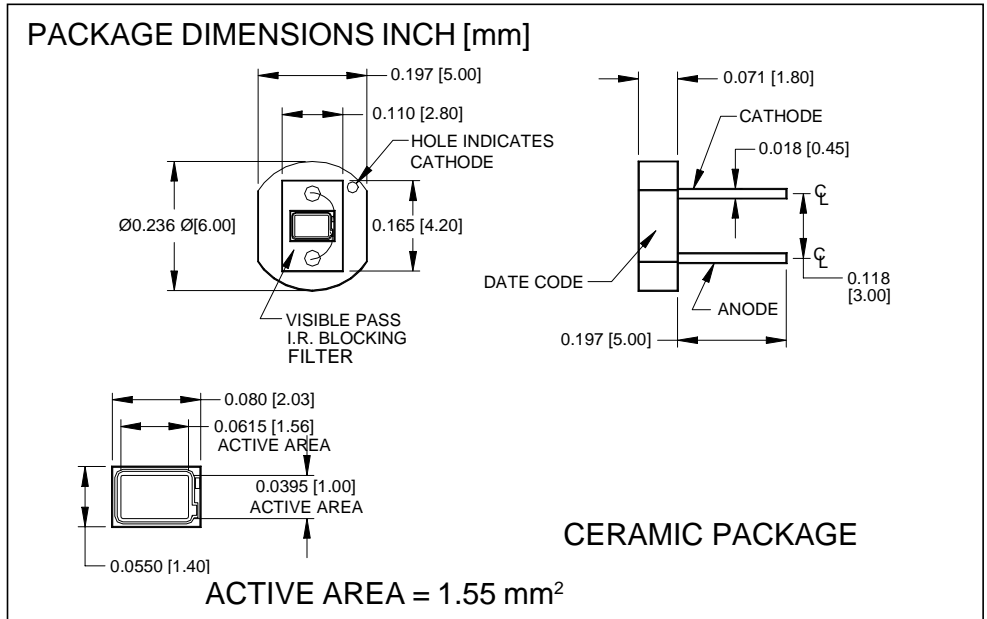
Click to view price, real time Inventory, Delivery & Lifecycle Information:

Advanced Photonix, Inc.
PDV-V419

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

PHOTONIC DETECTORS INC.

Silicon Photodiode, Visible Light Detector
Type PDV-V419

PACKAGE DIMENSIONS INCH [mm]

- 0.197 [5.00]
- 0.110 [2.80]
- HOLE INDICATES CATHODE
- Ø0.236 Ø[6.00]
- 0.165 [4.20]
- VISIBLE PASS I.R. BLOCKING FILTER

- 0.071 [1.80]
- CATHODE
- 0.018 [0.45]
- DATE CODE
- ANODE
- 0.197 [5.00]
- 0.118 [3.00]

- 0.080 [2.03]
- 0.0615 [1.56] ACTIVE AREA
- 0.0395 [1.00] ACTIVE AREA
- 0.0550 [1.40]

CERAMIC PACKAGE

ACTIVE AREA = 1.55 mm^2

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

DESCRIPTION
The **PDV-V419** 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_{BR}	Reverse Voltage		10	V
T_{STG}	Storage Temperature	-20	+80	^{O}C
T_O	Operating Temperature Range	-20	+60	^{O}C
T_S	Soldering Temperature*		+240	^{O}C
I_L	Light Current		0.5	mA

*1/16 inch from case for 3 secs max

SPECTRAL RESPONSE

RESPONSIVITY (A/W) vs WAVELENGTH (nm), QE = 100%
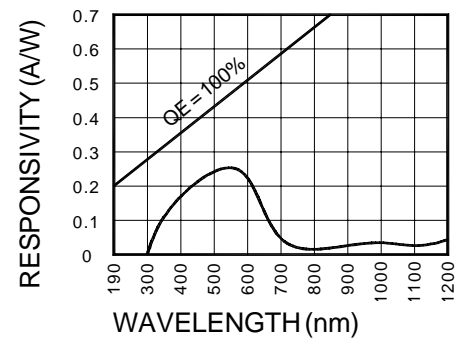
ELECTRO-OPTICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{SC}	Short Circuit Current	H = 100 fc, 2850 K	2	2.8		μA
I_D	Dark Current	H = 0, V_R = 10 V		75	150	pA
R_{SH}	Shunt Resistance	H = 0, V_R = 10 mV	1.5	2.0		GΩ
TC R_{SH}	R_{SH} Temp. Coefficient	H = 0, V_R = 10 mV		-8		% / ^{o}C
C_J	Junction Capacitance	H = 0, V_R = 0 V**		500	600	pF
λrange	Spectral Application Range	Spot Scan	320		730	nm
λp	Spectral Response - Peak	Spot Scan		560		nm
V_{BR}	Breakdown Voltage	I = 10 μA	10	15		V
NEP	Noise Equivalent Power	V_R = 10 V @ Peak		3x10^{-14}		W/ $\sqrt{Hz}$
tr	Response Time	RL = 1 KΩ V_R = 10 V		500		nS

[FORM NO. 100-PDV-V419 REV A]