

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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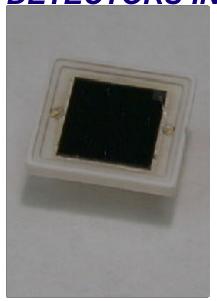


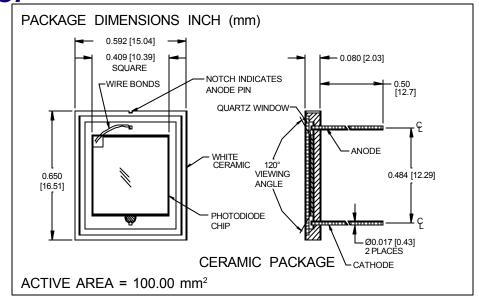




PHOTONIC DETECTORS INC.

# Silicon Photodiode, U.V. Enhanced Photovoltaic Type PDU-V110-Q





#### **FEATURES**

#### Low noise

- U.V. enhanced
- High shunt resistance
- Quartz window

#### **DESCRIPTION**

The **PDU-V110-Q** is a silicon, PIN planar diffused, U.V. enhanced photodiode. Ideal for low noise photovoltaic applications. Packaged in low profile ceramic substrate with a quartz window.

### **APPLICATIONS**

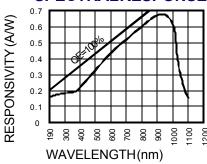
- Spectometers
- Fluorescent analysers
- U.V. meters
- Colorimeters

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

SYMBOL	PARAMETER	MIN	MAX	UNITS
V <sub>BR</sub>	Reverse Voltage		75	V
T <sub>STG</sub>	Storage Temperature	-20	+80	$\infty$
To	Operating Temperature Range	-20	+60	∘C
Ts	Soldering Temperature*		+220	∞
IL	Light Current		500	mA

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

#### **SPECTRALRESPONSE**



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

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS	
Isc	Short Circuit Current	H = 100 fc, 2850 K	0.9	1.2		m A	
ΙD	Dark Current	$H = 0, V_R = 10 \text{ mV}$		200	333	pA	
Rsh	Shunt Resistance	H = 0, V <sub>R</sub> = 10 mV	30	50		ΜΩ	
TC Rsh	RsH Temp. Coefficient	H = 0, V <sub>R</sub> = 10 mV		-8		% / ℃	
Сл	Junction Capacitance	H = 0, V <sub>R</sub> = 0 V**		10,000	12,000	рF	
λrange	Spectral Application Range	Spot Scan	190		1100	nm	
R	Responsivity	$V_R = 0 \text{ V}, \lambda = 254 \text{ nm}$	.12	.18		A/W	
VBR	Breakdown Voltage	I = 10 μA	5	10		V	
NEP	Noise Equivalent Power	V <sub>R</sub> = 10 mV @ Peak		2.0x10 <sup>-14</sup>		W/ √ Hz	
tr	Response Time	RL = 1 K $\Omega$ V <sub>R</sub> = 0 V		2000		nS	