## imall

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!



### Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832 Email & Skype: info@chipsmall.com Web: www.chipsmall.com Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# PHOTONIC Silicon Photodiode, U.V. Enhanced Photoconductive DETECTORS INC. Type PDU-C114



#### PACKAGE DIMENSIONS INCH [mm] WINDOW CAP (WELDED) Ø0.325 [8.25] 0.168 [4.26] Ø0.250 [6.35] 0.030 [0.76] 0.075 [1.91] WIRE --0.500-[12.70] MIN VIEWING Ø0.358 [9.09] 0.200 [5.08] ANGLE 0.035 lç Ø0.018 [0.46] HEADEF CATHODE Ø0.018 [0.46] PHOTODIODE 0.235 [5.97] ACTIVE AREA 0.123 [3.12] 0.135 [3.43] **TO-5 HERMETIC CAN PACKAGE** 0.223 [5.66] ACTIVE AREA ACTIVE AREA = 17.74mm<sup>2</sup>

#### FEATURES

- High speed
- U.V. enhanced
- Low capacitance
- U.V. window

#### DESCRIPTION

The **PDU-C114** is a silicon, PIN planar diffused, U.V. enhanced photodiode. Ideal for high speed photoconductive applications. Packaged in a hermetic TO-5 metal can with a U.V. transmitting window.

#### **APPLICATIONS**

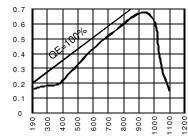
- Spectrometers
- Fluorescent analysers
- U.V. meters
- Colorimeters

**RESPONSIVITY (A/W)** 

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

SYMBOL	PARAMETER	MIN	MAX	UNITS
VBR	Reverse Voltage		30	V
T <sub>STG</sub>	Storage Temperature	-55	+150	S
То	Operating Temperature Range	-40	+125	S
Ts	Soldering Temperature*		+240	°C
Ι <sub>L</sub>	Light Current		500	mA

#### SPECTRALRESPONSE



WAVELENGTH(nm)

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

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

SYMBOL	CHARACTERISTIC	TESTCONDITIONS	MIN	TYP	MAX	UNITS			
lsc	Short Circuit Current	H = 100 fc, 2850 K	190	235		μA			
ΙD	Dark Current	$H = 0, V_{R} = 5 V$		3	8	nA			
Rsh	Shunt Resistance	$H = 0, V_{R} = 10 \text{ mV}$	75	250		MΩ			
TC RSH	RSH Temp. Coefficient	$H = 0, V_{R} = 10 \text{ mV}$		-8		% / °C			
CJ	Junction Capacitance	$H = 0, V_{R} = 5 V^{**}$		200		рF			
λrange	Spectral Application Range	Spot Scan	190		1100	nm			
R	Responsivity	$V_{_{ m R}}$ = 0 V, $\lambda$ = 254 nm	.12	.18		A/W			
VBR	Breakdown Voltage	I = 10 µµA	15	25		V			
NEP	Noise Equivalent Power	V <sub>R</sub> = 10 mV @ Peak		3.8x10 <sup>-14</sup>		W/ <del>/ Hz</del>			
tr	Response Time	$RL = 1 K\Omega V_R = 5 V$		65		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 [FORM\_NO.\_100-PDU-C114\_REV\_N/C]