



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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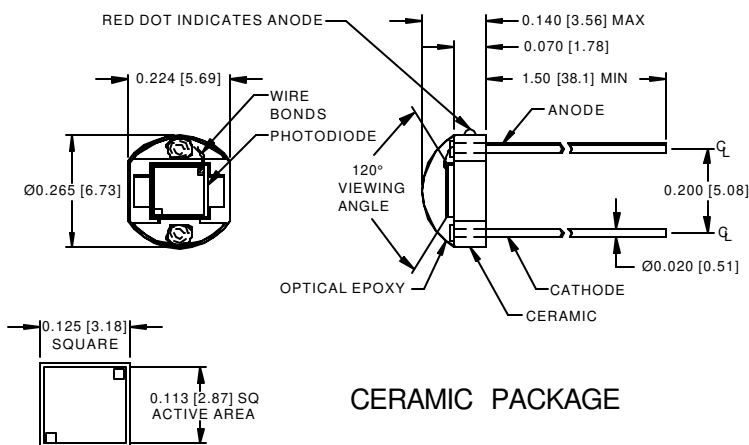


# PHOTONIC DETECTORS INC.

## Silicon Photodiode, U.V. Enhanced Photoconductive Type PDU-C113



### PACKAGE DIMENSIONS INCH (mm)



CERAMIC PACKAGE

ACTIVE AREA = 7.95 mm<sup>2</sup>

### FEATURES

- High speed
- Low capacitance
- U.V. enhanced
- Low dark current

### DESCRIPTION

The **PDU-C113** is a silicon, PIN planar diffused, U.V. enhanced photodiode. Ideal for high speed photoconductive applications. Packaged on a two lead ceramic substrate with a clear U.V. transmitting epoxy glob top.

### APPLICATIONS

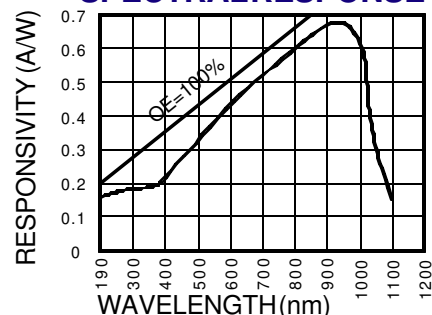
- U.V. exposure meter
- Water purification
- Fluorescence
- U.V. A & B meters

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

SYMBOL	PARAMETER	MIN	MAX	UNITS
V <sub>BR</sub>	Reverse Voltage		30	V
T <sub>STG</sub>	Storage Temperature	-40	+100	°C
T <sub>O</sub>	Operating Temperature Range	-40	+90	°C
T <sub>S</sub>	Soldering Temperature*		+240	°C
I <sub>L</sub>	Light Current		500	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 <sub>SC</sub>	Short Circuit Current	H = 100 fc, 2850 K	90	110		μA
I <sub>D</sub>	Dark Current	H = 0, V <sub>R</sub> = 5 V		10	50	nA
R <sub>SH</sub>	Shunt Resistance	H = 0, V <sub>R</sub> = 10 mV	100	250		MΩ
TC R <sub>SH</sub>	R <sub>SH</sub> Temp. Coefficient	H = 0, V <sub>R</sub> = 10 mV		-8		% / °C
C <sub>J</sub>	Junction Capacitance	H = 0, V <sub>R</sub> = 5 V**		130		pF
λ <sub>range</sub>	Spectral Application Range	Spot Scan	250		1100	nm
R	Responsivity	V <sub>R</sub> = 0 V, λ = 254 nm	.12	.18		A/W
V <sub>BR</sub>	Breakdown Voltage	I = 10 μA	15	25		V
NEP	Noise Equivalent Power	V <sub>R</sub> = 5 V @ Peak		2.2x10 <sup>-14</sup>		W/√Hz
tr	Response Time	R <sub>L</sub> = 1 KΩ V <sub>R</sub> = 5 V		58		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-C113 REV A]