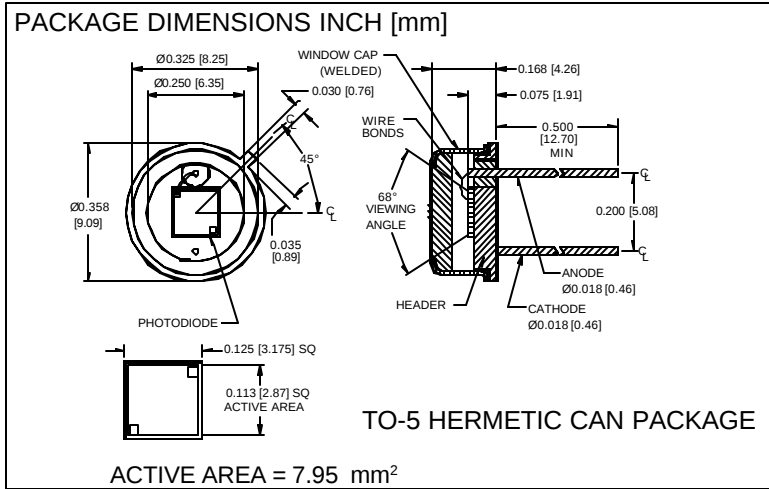


PHOTONIC DETECTORS INC.

Silicon Photodiode, U.V. Enhanced Photoconductive (SFH 291 Industry Equivalent) Type PDU-C119



FEATURES

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

DESCRIPTION

The **PDU-C119** is a silicon, PIN planar diffused, U.V. enhanced photodiode. Ideal for high speed photoconductive U.V. applications. Packaged in a hermetic TO-5 metal can with a U.V. transmitting window cap.

APPLICATIONS

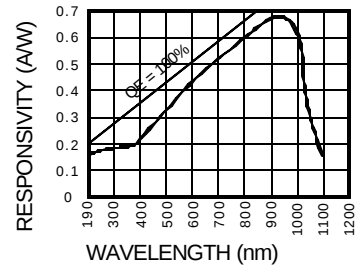
- Spectrometers
- Fluorescent analysers
- U.V. meters
- Colorimeters

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

SYMBOL	PARAMETER	MIN	MAX	UNITS
V _{BR}	Reverse Voltage		75	V
T _{STG}	Storage Temperature	-55	+150	°C
T _O	Operating Temperature Range	-40	+125	°C
T _S	Soldering Temperature*		+240	°C
I _L	Light Current		0.5	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 _{SC}	Short Circuit Current	E _e = 0.1 mW/cm ² , λ = 350 nm	.6	1.0		μA
I _D	Dark Current	H = 0, V _R = 5 V		.3	1.0	nA
R _{SH}	Shunt Resistance	H = 0, V _R = 10 mV	150	300		MΩ
TC R _{SH}	RSH Temp. Coefficient	H = 0, V _R = 10 mV		-8		% / °C
C _J	Junction Capacitance	H = 0, V _R = 0 V**		60		pF
λ _{range}	Spectral Application Range	Spot Scan	190		1100	nm
R	Responsivity	V _R = 0 V, λ = 254 nm	.12	.18		A/W
V _{BR}	Breakdown Voltage	I = 10 μA	5	10		V
N _{EP}	Noise Equivalent Power	V _R = 10 mV @ Peak		2x10 ⁻¹⁴		W/√Hz
tr	Response Time	RL = 1 KΩ V _R = 0 V		900		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-C119 REV A]