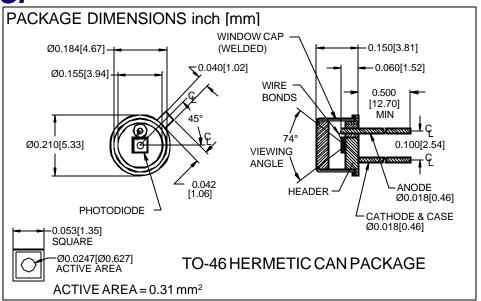
PHOTONIC Silicon Photodiode, U.V. Enhanced Photoconductive **DETECTORS INC.** Type PDU-C101





RESPONSIVITY (A/W)

FEATURES

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

DESCRIPTION

The **PDU-C101** is a silicon, PIN planar diffused, U.V. enhanced photodiode. Ideal for high speed photoconductive applications. Packaged in a hermetic TO-46 metal can with a U.V. transmitting window.

APPLICATIONS

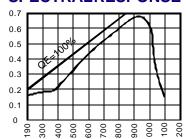
- Spectrometers
- Fluorescent analysers
- U.V. meters
- Colorimeters

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

SYMBOL	PARAMETER	MIN	MAX	UNITS
V _{BR}	Reverse Voltage		30	V
T _{STG}	Storage Temperature	-55	+150	∞
T _o	Operating Temperature Range	-40	+125	∘C
T _s	Soldering Temperature*		+240	∘C
IL	Light Current		500	mA

^{*1/16} inch from case for 3 secs max

SPECTRALRESPONSE



WAVELENGTH(nm)

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

LLCTIO-OF TICAL CHARACTERISTICS (TA=25°C difference following)								
SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS		
l _{sc}	Short Circuit Current	H = 100 fc, 2850 K	3.2	4.6		μΑ		
I _D	Dark Current	$H = 0, V_R = 5 V$		40	150	pA		
R_{sH}	Shunt Resistance	$H = 0, V_R = 10 \text{ mV}$.25	2.5		GΩ		
TCR _{SH}	RSH Temp. Coefficient	$H = 0, V_R = 10 \text{ mV}$		-8		%/℃		
C_J	Junction Capacitance	$H = 0$, $V_R = 5 V^{**}$		35		рF		
λ range	Spectral Application Range	Spot Scan	190		1100	nm		
R	Responsivity	$V_{R} = 0 \text{ V}, \ \lambda = 254 \text{ nm}$.12	.18		A/W		
V _{BR}	Breakdown Voltage	Ι = 10 μΑ	15	25		V		
NEP	Noise Equivalent Power	V _R = 10 mV @ Peak		1x10 ⁻¹⁴		W/√ Hz		
tr	Response Time	$RL = 1 K\Omega V_R = 5 V$		35		nS		