PHOTONIC Silicon Photodiode, U.V. Enhanced Photoconductive DETECTORS INC. Type PDU-C119-Q



PACKAGE DIMENSIONS INCH [mm] QUARTZ 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 Ø0.358 [9.09] 0.200 [5.08] ANGI F .035 LC DY/////// -ANODE Ø0.018 [0.46] CATHODE Ø0.018 [0.46] HEADER PHOTODIODE -0.125 [3.18] 0.113 [2.87] CTIVE AREA **TO-5 CAN PACKAGE** 0.113 [2.87] ACTIVE AREA ACTIVE AREA = 7.95 mm²

FEATURES

- High speed
- DESCRIPTION

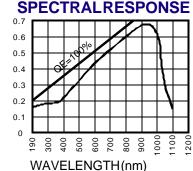
- U.V. enhanced
- Quartz window

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

APPLICATIONS

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

SYMBOLPARAMETERMINMAXUNITSVBRReverse Voltage30VT_STGStorage Temperature-55+150°CToOperating Temperature Range-40+125°CTsSoldering Temperature*+240°CI_LLight Current500mA								
T STGStorage Temperature-55+150°CToOperating Temperature Range-40+125°CTsSoldering Temperature*+240°C	SYMBOL	PARAMETER MIN		MAX	UNITS			
ToOperating Temperature Range-40+125°CTsSoldering Temperature*+240°C	Vbr	Reverse Voltage		30	V			
Ts Soldering Temperature* +240 °C	T _{STG}	Storage Temperature	-55	+150	°C			
	То	Operating Temperature Range	-40	+125	с			
I Light Current 500 mA	Ts	Soldering Temperature*		+240	°C			
	Ι	Light Current		500	mA			



*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	$\rm E_{c}$ = 0.1 mW/cm², λ =350 nm	.6	1.0		μA
ΙD	Dark Current	$H = 0, V_{R} = 5 V$		2.5	5	nA
Rsh	Shunt Resistance	$H = 0, V_{R} = 10 \text{ mV}$	150	300		MΩ
TC RSH	RSH Temp. Coefficient	$H = 0, V_{R} = 10 \text{ mV}$		-8		% / °C
CJ	Junction Capacitance	$H = 0, V_{R} = 5 V^{**}$		130		pF
λrange	Spectral Application Range	Spot Scan	190		1100	nm
R	Responsivity	V_{R} = 0 V, λ = 254 nm	.12	.18		A/W
Vbr	Breakdown Voltage	I = 10 µA	15	25		V
NEP	Noise Equivalent Power	V _R = 10 mV @ Peak		2.2x10 ⁻¹⁴		W/√ ^{Hz}
tr	Response Time	$RL = 1 K\Omega V_R = 5 V$		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 [FORMNO.100-PDU-C119-QREVA]

RESPONSIVITY (A/W)