OPTOELECTRONICS

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UV Enhanced Silicon Photodiode PDU-V104

Precision – Control – Results





DESCRIPTION

The **PDU-V104** is a UV enhanced silicon PIN packaged in a hermetic TO-46 metal package.

FEATURES

- Low Noise
- UV Enhanced
- High Shunt Resistance
- High Response

APPLICATIONS

Industrial

Medical

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Instrumentation

RELIABILITY

This Luna high-reliability device is in principle able to meet military test requirements (Mil-Std-750, Mil-Std-883) after proper screening and group test.

Contact Luna for recommendations on specific test conditions and procedures.

ABSOLUTE MAXIMUM RATINGS

SYMBOL	MIN		MAX	UNITS	
Reverse Voltage	-	-	75	V	$T_a = 23$ °C UNLESS OTHERWISE NOTED
Storage Temperature	-55	to	+150	°C	-
Operating Temperature	-40	to	+125	°C	-
Soldering Temperature*	-	-	+240	°C	-
* 1/10 in the frame access for 0 accessed					-

* 1/16 inch from case for 3 seconds max.

Information in this technical datasheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject to change without notice.

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OPTO-ELECTRICAL PARAMETERS

 $T_a = 23^{\circ}C$ UNLESS NOTED OTHERWISE

PARAMETER	TEST CONDITIONS	TEST CONDITIONS MIN		MAX	UNITS	
Dark Current	V _R = 10mV	-	5	10	pА	
Shunt Resistance	V _R = 10 mV	1.0	2	-	GΩ	
Junction Capacitance	V _R = 0V, <i>f</i> = 1 MHz	-	340	-	pF	
Spectral Application Range	Spot Scan	350	-	1100	nm	
Responsivity	λ= 365nm V, V _R =0V	0.10	0.18	-	A/W	
Breakdown Voltage	I = 10 μA	30	50	-	V	
Noise Equivalent Power	V _R = 0V@ λ=Peak	-	5.0x10 ⁻¹⁴	-	W/ $_{ m Hz}$	
Response Time**	RL = 50Ω, V _R =0V	-	190	-		
	RL = 50 Ω,V _R = 10 V	-	13	-	nS	

**Response time of 10% to 90% is specified at 660nm wavelength light.

TYPICAL PERFORMANCE

SPECTRAL RESPONSE



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