



## DESCRIPTION

The **SD 200-13-23-242** is a UV enhanced silicon PIN packaged in a hermetic TO-5 metal package.

## FEATURES

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

## RELIABILITY

Contact Luna for recommendations on specific test conditions and procedures.

## APPLICATIONS

- Instrumentation
- Industrial
- Medical

## ABSOLUTE MAXIMUM RATINGS

SYMBOL	MIN		MAX	UNITS	T <sub>a</sub> = 23°C UNLESS OTHERWISE NOTED
Reverse Voltage	-	-	75	V	-
Storage Temperature	-55	to	+150	°C	-
Operating Temperature	-40	to	+125	°C	-
Soldering Temperature*	-	-	+240	°C	-

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

**OPTO-ELECTRICAL PARAMETERS**

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

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Dark Current	$V_R = 5\text{V}$	-	6.0	30	nA
Shunt Resistance	$V_R = 10\text{ mV}$	77	-	-	$\text{M}\Omega$
Junction Capacitance	$V_R = 0\text{V}, f = 1\text{ MHz}$	-	345	-	pF
	$V_R = 5\text{V}, f = 1\text{ MHz}$	-	102	-	
Spectral Application Range	Spot Scan	250	-	1100	nm
Responsivity	$\lambda = 365\text{nm}$ V, $V_R = 0\text{V}$	0.14	0.18	-	A/W
Breakdown Voltage	$I = 10\text{ }\mu\text{A}$	-	10	-	V
Noise Equivalent Power	$V_R = 0\text{V}$ @ $\lambda = 350\text{nm}$	-	$8.9 \times 10^{-14}$	-	$\text{W}/\sqrt{\text{Hz}}$
Response Time**	$\text{RL} = 50\Omega, V_R = 0\text{V}$	-	190	-	nS
	$\text{RL} = 50\Omega, V_R = 10\text{V}$	-	13	-	

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

**TYPICAL PERFORMANCE**

**SPECTRAL RESPONSE**

