



DESCRIPTION

The **SD 100-11-31-221** is an ultra low capacitance silicon PIN photodiode, red enhanced, packaged in a leaded hermetic TO-5 metal package.

FEATURES

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

RELIABILITY

Contact Luna for recommendations on specific test conditions and procedures.

APPLICATIONS

- Military
- Industrial
- Medical

ABSOLUTE MAXIMUM RATINGS

SYMBOL	MIN	MAX	UNITS	
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°C UNLESS NOTED OTHERWISE

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Dark Current	V _R = 50V	-	12	50	nA
Junction Capacitance	V _R = 0V, f = 1 MHz	-	28	-	pF
	V _R = 50V, f = 1 MHz	-	3.5	-	
Spectral Application Range	Spot Scan	350	-	1100	nm
Responsivity	λ = 900nm, V _R = 0V	0.50	0.55	-	A/W
Breakdown Voltage	I = 10 μA	-	75	-	V
Noise Equivalent Power	V _R = 5V @ λ = 950nm	-	1.3x10 ⁻¹³	-	W/√Hz
Response Time**	RL = 50Ω, V _R = 0V	-	190	-	nS
	RL = 50Ω, V _R = 50V	-	6	-	

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

TYPICAL PERFORMANCE

SPECTRAL RESPONSE

