



**DESCRIPTION**

The **SD 630-70-72-500** is a non-cooled large area red enhanced silicon avalanche photodiode (APD) with high gain and low noise in a SHV package.

**FEATURES**

- Low Noise
- High Gain
- High Speed

**RELIABILITY**

Contact Luna for recommendations on specific test conditions and procedures.

**APPLICATIONS**

- Instrumentation
- Medical

**ABSOLUTE MAXIMUM RATINGS**

SYMBOL	MIN	MAX	UNITS	
Gain	-	-	250	-
Storage Temperature	-55	to	+70	°C
Operating Temperature	-55	to	+40	°C
Soldering Temperature*	-	-	+240	°C

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

**OPTO-ELECTRICAL PARAMETERS**

T<sub>a</sub> = 23°C UNLESS NOTED OTHERWISE

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Dark Current	-	-	280	600	nA
Junction Capacitance	f = 1 MHz	-	130	-	pF
Noise Current Spectral Density	f = 100 kHz	-	2.5	5.5	pA/√Hz
Spectral Application Range	Spot Scan	300	-	1000	nm
Responsivity	λ = 750 nm, V <sub>R</sub> = 0 V	-	100	-	A/W
Operating Voltage	-	1700	-	2000	V
Temp. Coeff. Breakdown Voltage	Constant Gain = 200	-	2	-	V
Response Time**	RL = 50Ω, λ = 675nm	-	12	18	nS

\*\*Response time of 10% to 90% is specified at 675nm wavelength light.

**TYPICAL PERFORMANCE**

**DIRECTIONAL SENSITIVITY**

