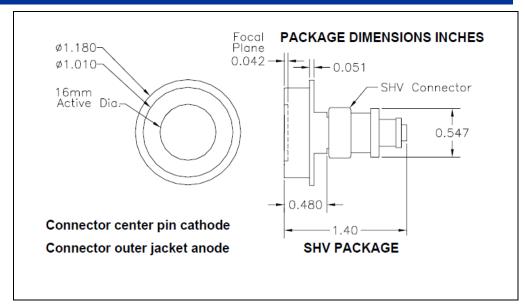
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Precision – Control – Results





DESCRIPTION

The **SD 630-70-75-500** is a windowless non-cooled large area DUV 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	-	T _a = 23°C UNLESS NOTED OTHERWISE
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



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OPTO-ELECTRICAL PARAMETERS

T_a = 23°C, Gain is M=200 UNLESS NOTED OTHERWISE

PARAMETER	TEST CONDITIONS	MIN	ТҮР	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	150	-	1000	nm
Responsivity	λ= 160 nm	-	30	-	A/W
Operating Voltage	-	1700	-	2000	V
Temp. Coeff. Breakdown Voltage	Constant Gain =200	-	2	-	V
Response Time**	RL = 50Ω , $\lambda = 675$ nm	-	15	22	nS

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

TYPICAL PERFORMANCE

SPECTRAL SENSITIVITY

70 60 50 50 10 10 150 350 550 750 950 Wavelenght [nm]

QUANTUM EFFICIENCY

