



DESCRIPTION

The **SD 394-70-72-591** is a cooled large area silicon avalanche photodiode (APD) that provides high gain and low noise, in a hermetic TO-3 package.

FEATURES

- Low Noise
- Small Size
- High Speed
- Low Cost

RELIABILITY

Contact Luna for recommendations on specific test conditions and procedures.

APPLICATIONS

- Industrial Switching
- Medical
- Military

ABSOLUTE MAXIMUM RATINGS

SYMBOL	MIN	MAX	UNITS	
Gain	-	-	350	-
Storage Temperature	-55	to	+70	°C
Operating Temperature	+1	to	+40	°C
Soldering Temperature	-	-	+240	°C
TEC Voltage	-	to	4.3	V
TEC Current	-	-	2.0	A
APD Die Power Diss.	-	-	0.2	W

* 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	-	-	15	35	nA
Junction Capacitance	f = 1 MHz	-	50	-	pF
Noise Current Spectral Density	f = 100 kHz	-	1.5	2.5	pA/√Hz
Spectral Application Range	Spot Scan	350	-	1050	nm
Responsivity	λ = 750 nm, V _R = 0 V	-	135	-	A/W
Operating Voltage	-	1700	-	2000	V
Response Time**	RL = 50Ω, λ = 675nm	-	12	-	nS
TEC Quiescent Current	Case Temp = 35°C	-	0.95	-	A

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

TYPICAL PERFORMANCE

DIRECTIONAL SENSITIVITY

