



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



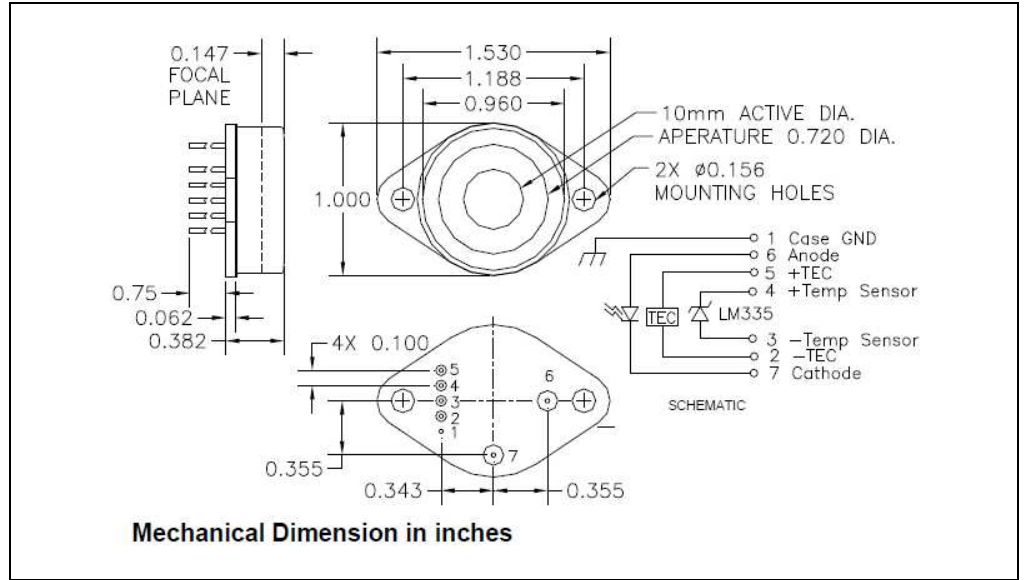
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DESCRIPTION

The **SD 394-70-74-591** 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
- Medical
- Military

ABSOLUTE MAXIMUM RATINGS

SYMBOL	MIN		MAX	UNITS	
Gain	-	-	350	-	$T_a = 23^{\circ}\text{C}$ UNLESS OTHERWISE NOTED
Storage Temperature	-55	to	+70	$^{\circ}\text{C}$	-
Operating Temperature	+1	to	+40	$^{\circ}\text{C}$	-
Soldering Temperature*	-	-	+240	$^{\circ}\text{C}$	-
TEC Voltage	-	-	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 = 500 nm, V _R = 0 V	-	35	-	A/W
Operating Voltage	-	1700	-	2000	V
Response Time**	RL = 50Ω, λ = 675nm	-	12	18	nS
TEC Quiescent Current	Case Temp = 35°C	-	0.95	-	A

**Response time of 10% to 90% is specified at 675nm wavelength light.
All specifications are with the APD internally cooled to 0°C and a gain of 300.

TYPICAL PERFORMANCE

DIRECTIONAL SENSITIVITY

