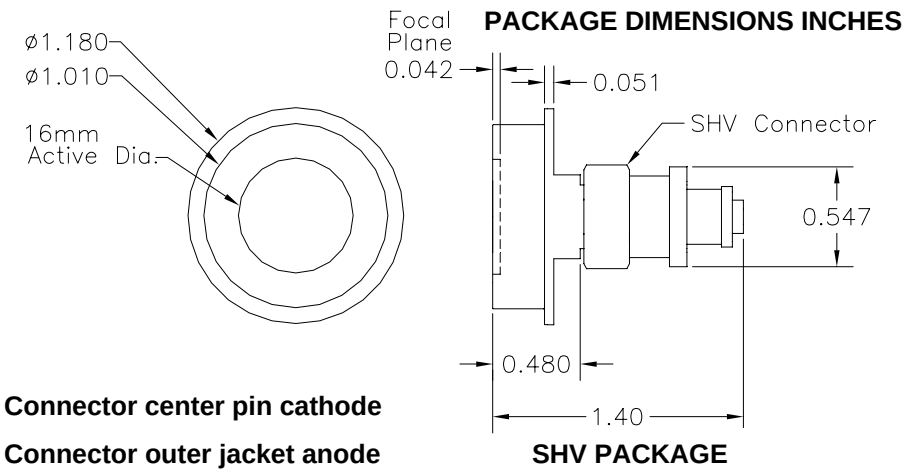
Non-Cooled Large Area UV Silicon Avalanche Photodiode

SD 630-70-73-500



FEATURES

- Low noise
- High gain
- High Speed

DESCRIPTION

The **SD 630-70-73-500** is a non-cooled large area UV enhanced silicon avalanche photodiode (APD) with high gain and low noise in a SHV package.

APPLICATIONS

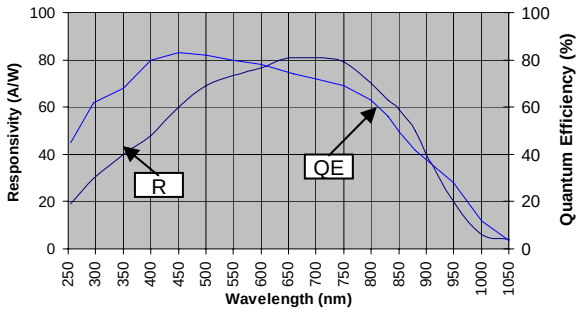
- Instrumentation
- Medical

ABSOLUTE MAXIMUM RATING (TA)= 23°C UNLESS OTHERWISE NOTED

SYMBOL	PARAMETER	MIN	MAX	UNITS
M	Gain		250	
T_{STG}	Storage Temperature	-55	+70	°C
T_O	Operating Temperature	-55	+40	°C
T_S	Soldering Temperature*		+240	°C

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

SPECTRAL RESPONSE M = 200



ELECTRO-OPTICAL CHARACTERISTICS RATING (TA)= 23°C and Gain of 200 UNLESS OTHERWISE NOTED

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_D	Dark Current			280	600	nA
C_J	Junction Capacitance	*f* = 1 MHz		130		pF
I_N	Noise Current Spectral Density	f = 100 kHz		2.5	5.5	pA/√Hz
λrange	Spectral Application Range	Spot Scan	350		1050	nm
R	Responsivity	λ= 350 nm, V_R = 0 V		38		A/W
Vop	Operating voltage		1700		2000	V
T_{VBR}	Temp. Coeff. Breakdown voltage	Constant Gain = 200		2		V
t_r	Response Time*	RL = 50 Ω, λ= 675nm		15	22	nS

*Response time of 10% to 90% is specified at 675nm wavelength light.
Each part is supplied with gain bias voltages and dark current data.

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