

### FEATURES

- Low noise
- Small size
- High Speed
- Low cost

### DESCRIPTION

The **SD 012-70-62-541** is a 0.3 mm diameter small area silicon avalanche photodiode (APD) that provides high gain and low noise, packaged in a hermetic TO-46 metal can with a flat window.

### APPLICATIONS

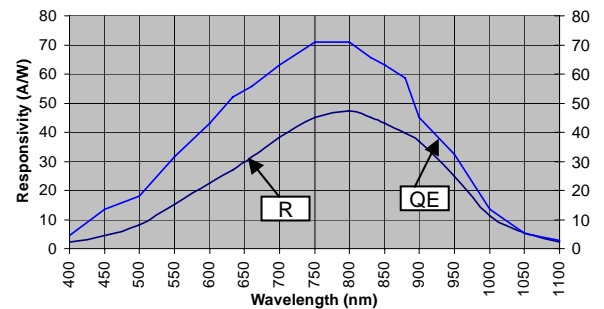
- Military
- Industrial
- Medical

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

SYMBOL	PARAMETER	MIN	MAX	UNITS
V <sub>BR</sub>	Reverse Voltage	130	280	V
T <sub>STG</sub>	Storage Temperature	-40	+85	°C
T <sub>O</sub>	Operating Temperature	-40	+55	°C
T <sub>S</sub>	Soldering Temperature*		+240	°C

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

### SPECTRAL RESPONSE



### ELECTRO-OPTICAL CHARACTERISTICS RATING (TA)= 23°C and gain of 100 at 820nm UNLESS OTHERWISE NOTED

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I <sub>D</sub>	Dark Current			2	10	nA
C <sub>J</sub>	Junction Capacitance	f = 1 MHz			2.5	pF
I <sub>N</sub>	Noise Current Spectral Density	f = 100 kHz		0.12		pA/√Hz
λ range	Spectral Application Range	Spot Scan	400		1100	nm
R	Responsivity	λ = 660nm, V <sub>R</sub> = 0 V		30		A/W
		λ = 830nm, V <sub>R</sub> = 0 V		47		
V <sub>op</sub>	Operating voltage		130		280	V
t <sub>r</sub>	Response Time**	RL = 50 Ω, λ = 675nm		0.7	1	nS

\*\*Response time of 10% to 90% is specified at 820nm wavelength light.

Information in this technical datasheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject to change without notice.