



## APD130 Series Avalanche Photodetector

### OVERVIEW

Avalanche Photodetector (APD) Offer Higher Sensitivity and Lower Noise Than Standard PIN Detectors for Low Optical Power Applications, Our detectors integrate a temperature sensor to adjust the bias voltage to compensate for the effect of temperature changes on the M factor. The detector is powered by a single power supply, easy to use, designed for spatial coupling, and can be equipped with FC optical connectors.

### FEATURES

- ◆ M factor temperature compensation
- ◆ APD overcurrent protection
- ◆ Low noise, high gain
- ◆ DC12V single supply operation
- ◆ All-metal shell with excellent shielding performance
- ◆ M6 threaded holes for easy installation
- ◆ Free space coupling, 30mm optical cage system mounting holes

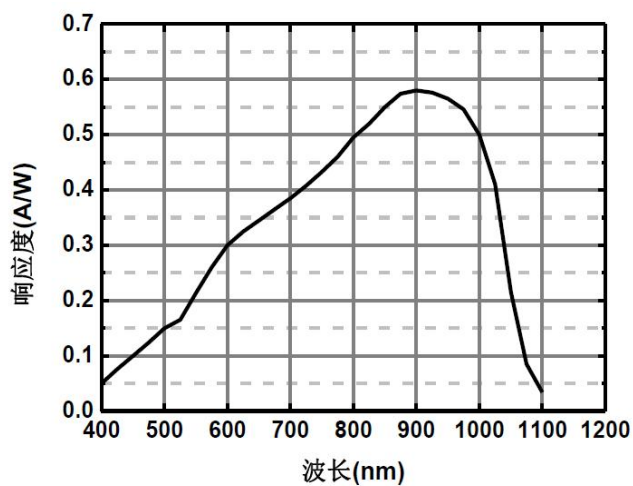
### APPLICATIONS

- ◆ Detect ultra-weak light signals
- ◆ Detection of laser pulses
- ◆ Chemical analysis
- ◆ Non-destructive testing
- ◆ Fluorescence analysis

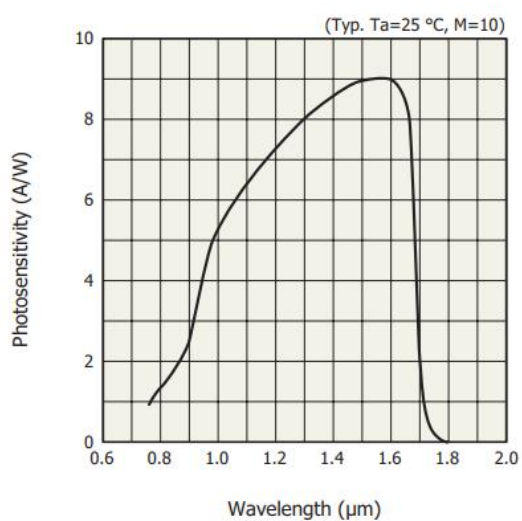
**SPECIFICATIONS**

Item	APD130A-50M	APD130C-50M
Detector	Si	InGaAs
Wavelength Range	400-1100nm	1000-1700nm
Active Area	500um	500um
Peak Response	28A/W @ 905nm (M = 50)	9A/W @ 1550nm (M = 10)
Bandwidth	DC-50MHz	DC-50MHz
Rise Time	9ns	9ns
M factor	50	10
Transimpedance gain	110kV/A	110kV/A
Maximum conversion gain	$3 \times 10^6$ V/W	$1 \times 10^6$ V/W
No optical noise voltage@50Ω	<16mVpp	<16mVpp
Maximum output amplitude@HiZ	3V	3V
Minimum optical power	10nw	32nw
Saturated optical power	1uw	3uw
Work voltage	12VDC ±10%	
Work current	<100mA	
Output connector	SMA	
Output impedance	50Ω	
Output coupling mode	DC	
Work temperature	-20~60°C	
Storage temperature	-40~85°C	
Package Size	60mm x 50mm x 32mm (长 x 宽 x 厚, 不含连接器)	

**RESPONSE CURVE**



APD130A-50M 响应曲线



APD130C-50M 响应曲线

MECHANICAL DRAWING

