

APD12703 Avalanche Photodetector

1. Overview

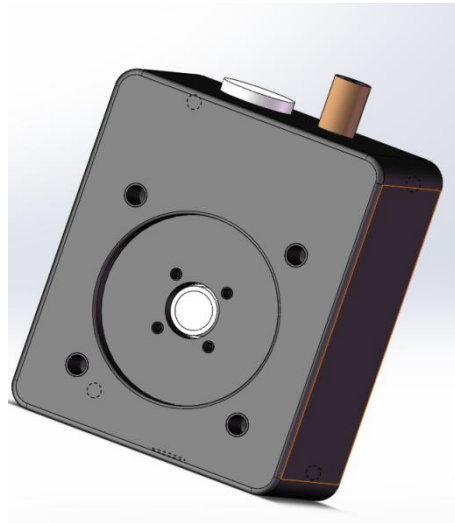
The APD12703 is based on an avalanche photodiode with a large 3mm photosensitive surface, capable of detecting light as well as its faintness and UV enhancement at 355nm. The APD12703 has an integrated thermistor with adjustable bias voltage to compensate for the effect of temperature changes on the M-factor.

2. Features

- Temperature Compensation
- UV Enhanced
- Optional FC flange
- High sensitivity
- Large optical size (3mm)
- 30mm optical cage system

3. Applications

- Detection of weak light signals
- Fluorescence measurement
- Chemical analyzers



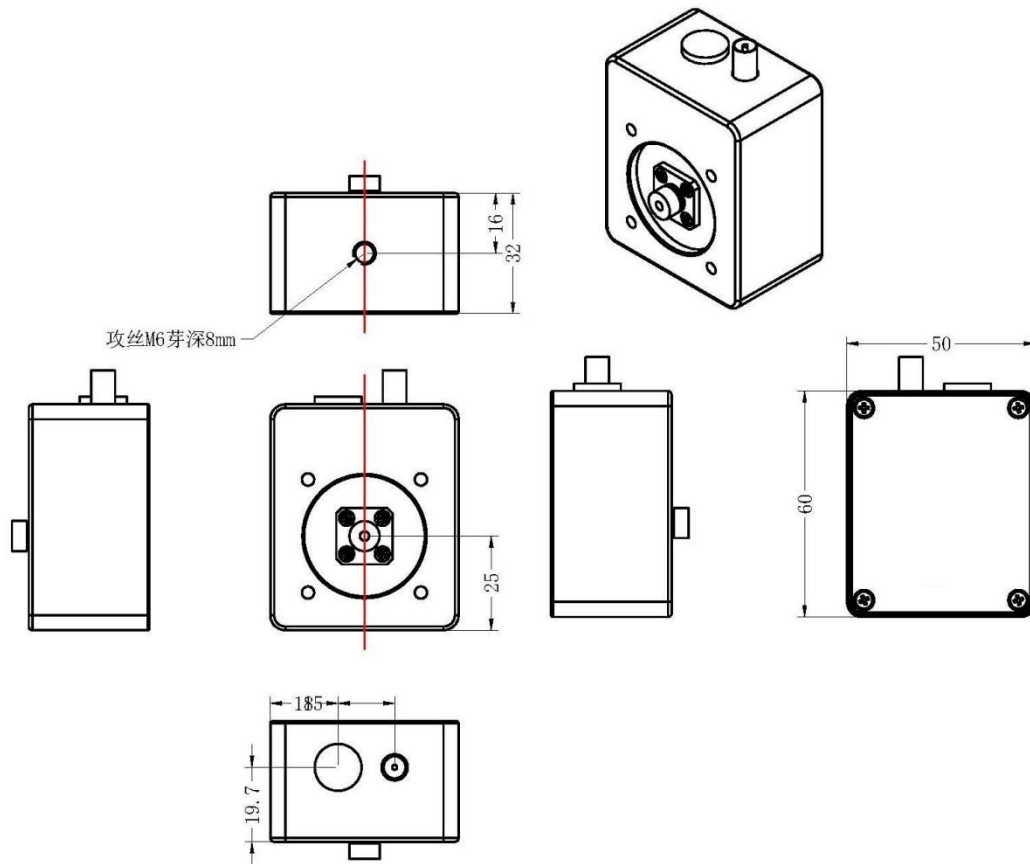
4. Specifications

Items	APD12703A-50k	APD12703A-1.5M
Materials	Si	Si
Wavelength	300-1000nm	300-1000nm
Photosensitive diameter	3mm	3mm
Responsivity @M=1	0.5A/W @ 800nm	0.5A/W @ 800nm
Bandwidth ^a	DC-50kHz	DC-1.5M
Rise time ^a	7us	250ns
Gain ^a	1.6×10^7 V/W	1×10^6 V/W
Saturated Optical power	310nW	5uW
Noise voltage ^a	22mVpp	20mVpp
Maximum Output Voltage ^a	5V	5V
NEP	0.5pW/√Hz	0.82pW/√Hz
Operating voltage	9-12V	9-12V
Operating Current	<200mA	<200mA
Output Impedance	50Ω	50Ω
Output coupling mode	DC	DC
Output connector	SMA female	SMA female
Operating temperature	-10~65°C	-10~65°C
Storage temperature	-40~85°C	-40~85°C

Remarks:

a For high resistance loads

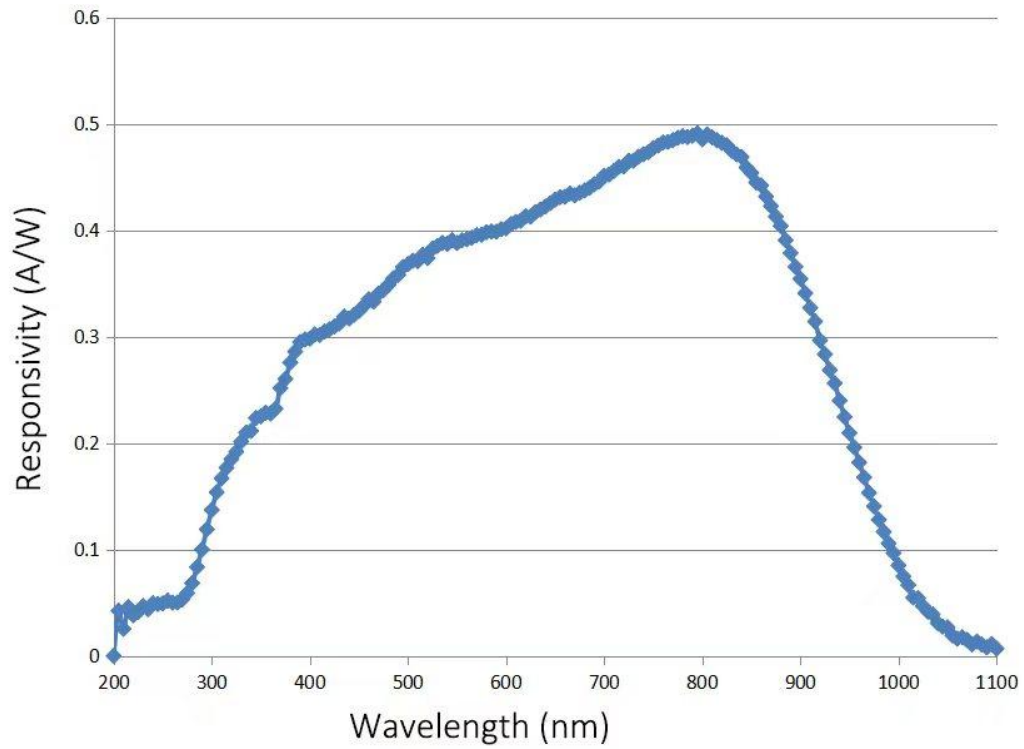
5. Mechanical dimensions



Remarks:

FC flange is optional

6. Response curve



Note: Response curves are typical values for reference only.