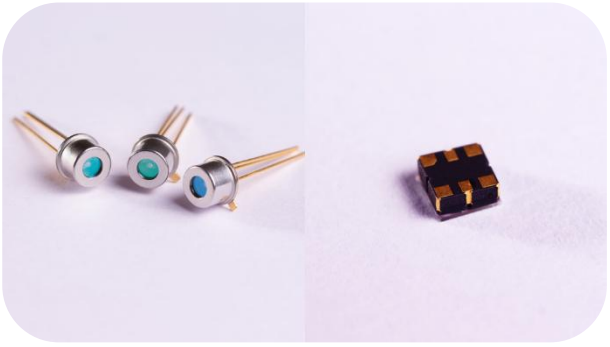
Aura Series – Noiseless InGaAs® APD

Datasheet – 30 µm

Aura

The Aura series of *Noiseless InGaAs®* Avalanche Photodiodes (APDs) are engineered for infrared detection. They have extremely low excess noise factor and high sensitivity, making them ideal for applications using Time-of-Flight.



Noiseless InGaAs® refers to Phlux's patented compound semiconductor technology, which enables APDs to operate exceeding avalanche gain of 100 without excess noise factor induced degradation of the signal-to-noise ratio (SNR).

Features

- **Spectral response 950 – 1650 nm.**
- **Can be operated at high gain, *M* >100.**
- **Low excess noise factor, *F* <3.5 @ *M* =100.**
- **Low dark current and high sensitivity.**
- **Low temperature coefficient of breakdown voltage (< 20 mV/K).**
- **Fast rise/fall time of impulse response.**
- **RoHS-compliant.**
- **Available in TO-46 and SMD packages, other formats available on request.**

Applications

- **Optical Time Domain Reflectometry (OTDR).**
- **Free Space Communication.**
- **Fiber Sensing.**
- **Extended Range Telecom.**

Devices undergo burn-in to assure high reliability.
Phlux technology is certified to ISO-9001 and the product is designed to meet MIL-STD-883 specifications.

Phlux Technology Ltd
Pennine Five Campus, Block 5, Level 2, 18 Hawley Street, Sheffield, S1 4WP, UK
Company Number: 12908876

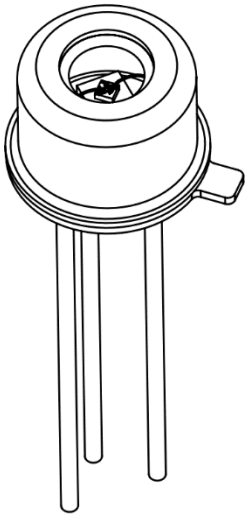
1. Package Mechanical Dimensions

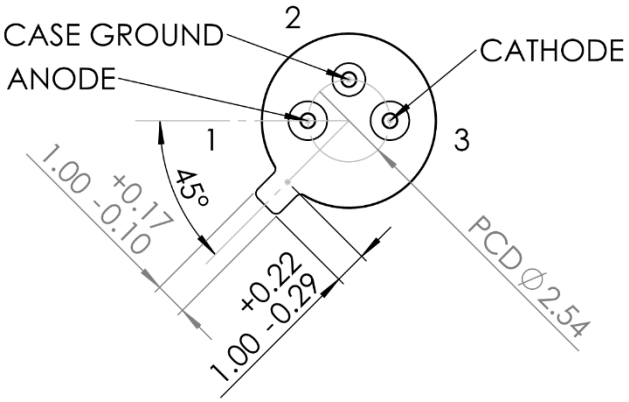
TO-46 3 PIN (HIGH PROFILE)

Diagram units in mm

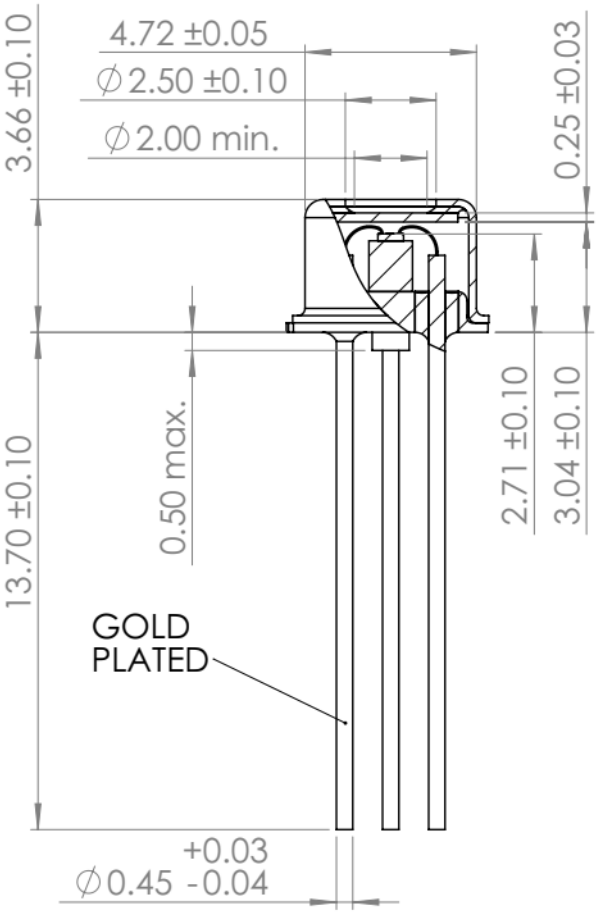
Pin metal: Gold plated.

Optical window AR coated with > 98% transmission from 1050 to 1650 nm.





Bottom view

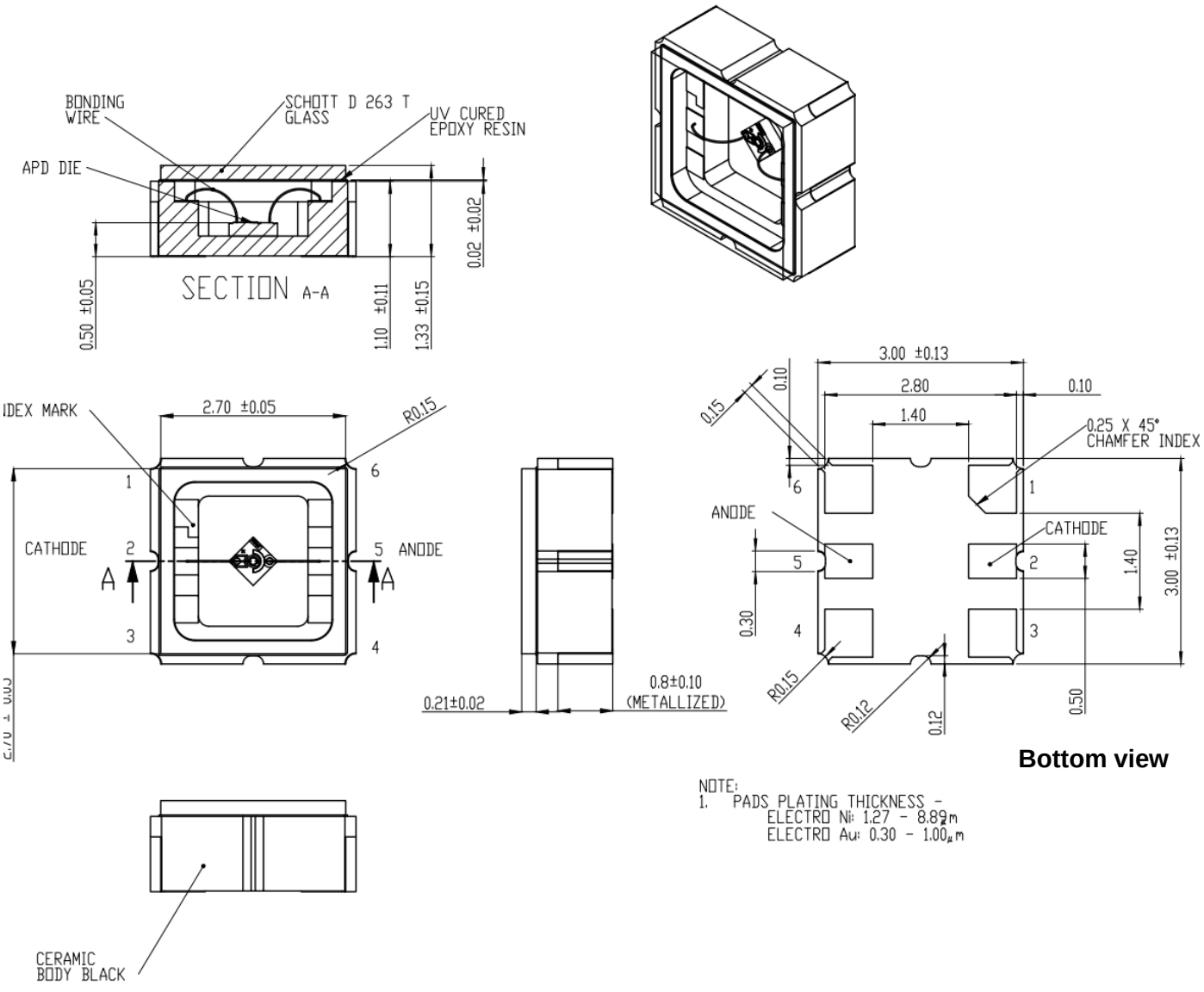


Surface-Mount Device (SMD)

Diagram units in mm

Optical window AR coated with > 98% transmission from 1050 to 1650 nm.

Pin 1, 3, 4, 6 are not connected (NC) electrically - can be used as mechanical PCB connection.



2. Ordering Information

Part Number	Package	Description	MoQ
PX01030-TO	TO-46	APD in TO-46	
PX01030-SM	SMD	APD in SMD	

Contact sales for bare die, chip on sub-mount and fibre pigtailed package options.

3. Phlux Technology Address and Contact Details

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