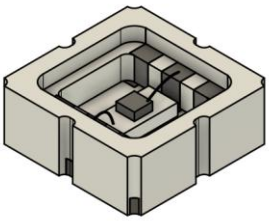
# 200µm InGaAs APD (Type 5)

# (P/N.: Ain-200-05-01)

## Features

- Excellent linearity, high power handling (0dBm) and high gain (M = 10 - 20) InGaAs APD.
- Typical operating voltage 8V (M = 10) below the breakdown voltage.
- Active Area = 200µm.

3D view (w/o glass)



## Applications

- High performance laser range finding
- Scientific instrumentation

## Absolute Maximum Ratings

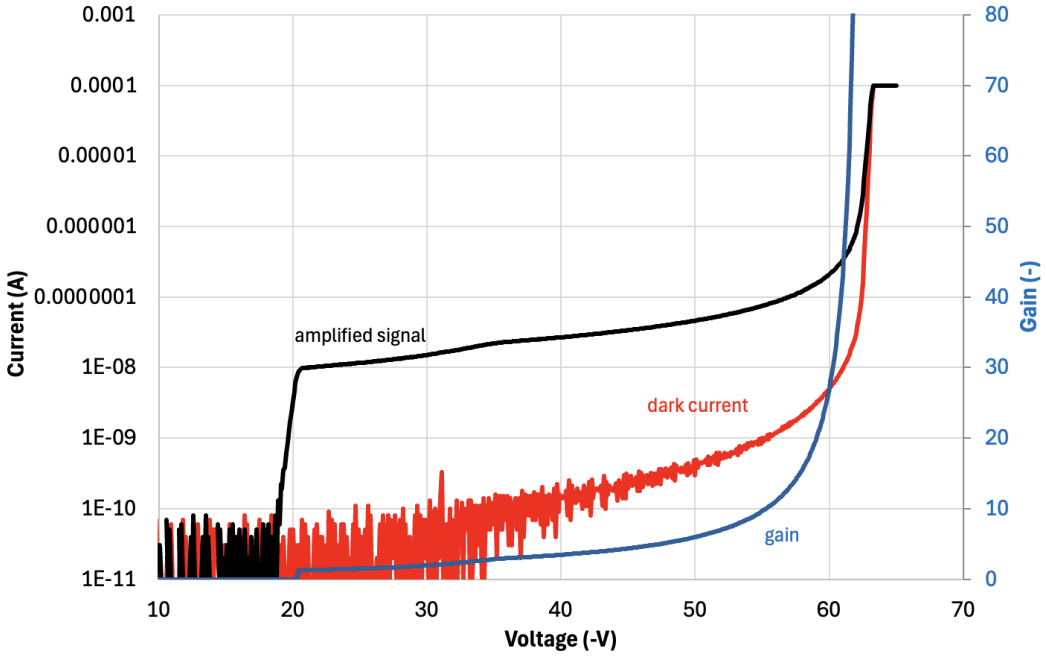
| Parameter | Symbol | Min | Typ | Max | Unit |
|---|---|---|---|---|---|
| Forward Current | $I_F$ | - | - | 1 | mA |
| Reverse Voltage | $V_R$ | - | - | 0.99 x $V_{BR}$ | V |
| CW input power | $P_{MAX-CW}$ | - | - | 1 | mW |
| Operating Case Temperature | $T_C$ | -40 | - | 85 | °C |
| Storage Temperature | $T_{STG}$ | -55 | - | 85 | °C |

## Opto-Electrical Characteristics

| Parameter | Symbol | Min | Typ | Max | Unit | Notes |
|---|---|---|---|---|---|---|
| Wavelength Range | λ | 1000 | | 1630 | nm | |
| Reverse Breakdown Voltage | $V_{BR}$ | 50 | 63 | 83 | V | $I_D$ = 10µA |
| Operating Voltage | $V_{OP}$ | 43 | 55 | 75 | V | M = 10 |
| Multiplication Factor | M | - | 10 | - | | $V_{OP} = V_{BR}$ - 8V |
| | | - | 20 | - | | $V_{OP} = V_{BR}$ - 3V |
| Spectral Responsivity | S | 0.85 | 0.9 | 0.95 | A/W | 1550nm, M = 1 |
| Multiplied Dark Current | $I_{DM}$ | - | 8 | 25 | nA | M = 10 |
| Terminal Capacitance | $C_J$ | - | 1.5 | 2 | pF | M = 10 |
| Bandwidth | BW | 1 | 1.5 | 2 | GHz | M = 10 |
| Temperature coeff of $V_{BR}$ | ΔV/ΔT | - | 0.075 | - | V/°C | T = 25°C |
| Excess Noise Factor | F | - | 3.2 | 3.7 | | M = 10 |
| | | - | 5.5 | 6.0 | | M = 20 |
| Noise Equivalent Current | NEP | - | 0.03 | 0.1 | $fA/Hz^{0.5}$ | M = 10 |

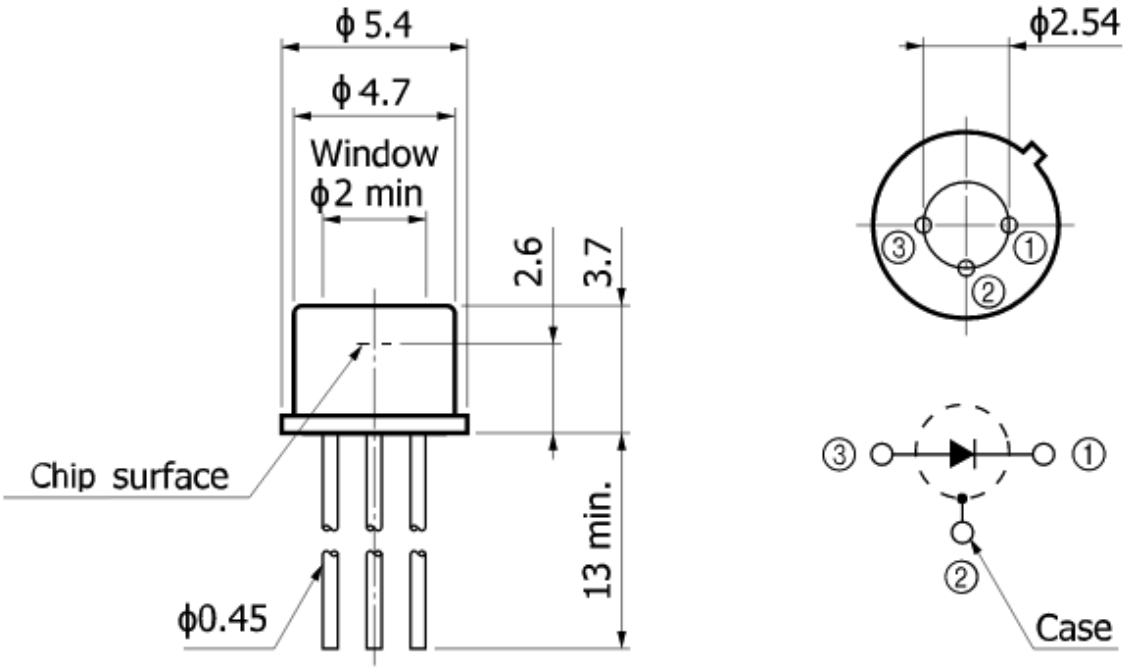


*Pangolin Industries Ltd. T/A Premier Photonics, 8 Deer Park, Livingston, EH54 8GA, Scotland, United Kingdom*



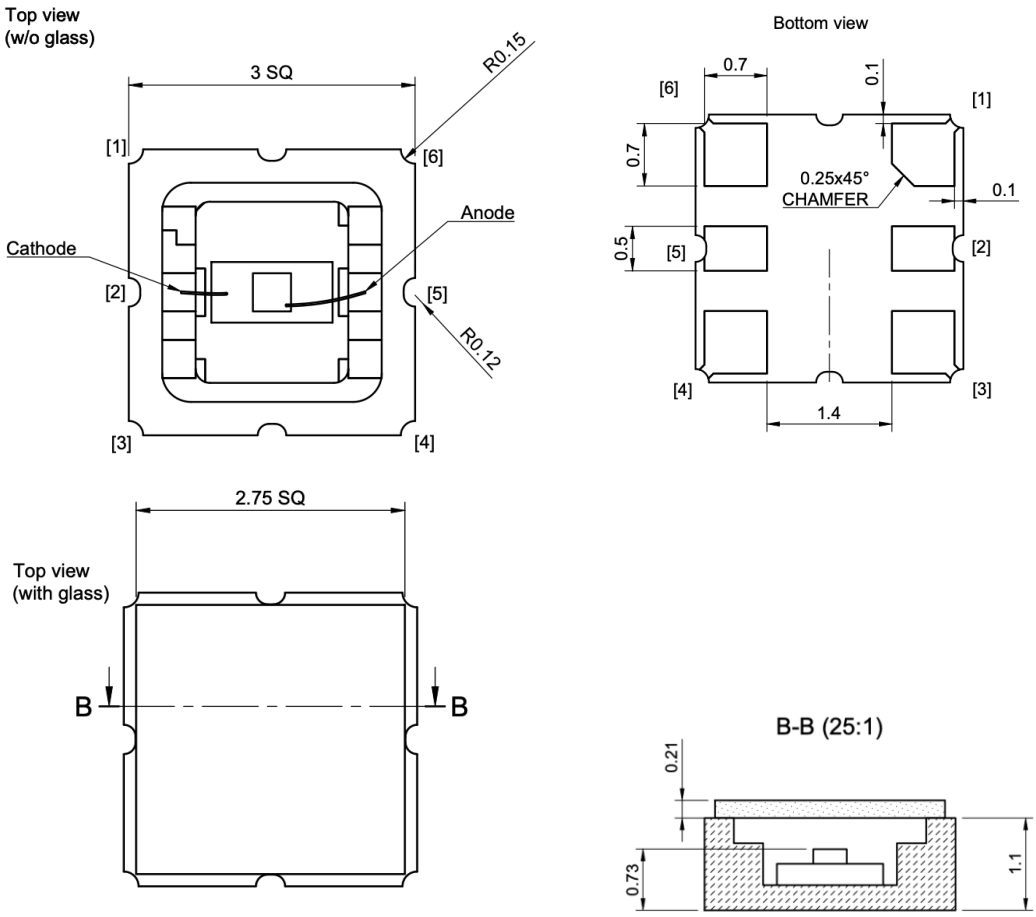

# Dimensional outlines (unit = mm)

## TO




Package can be customized

# SMD




Package can be customized



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