

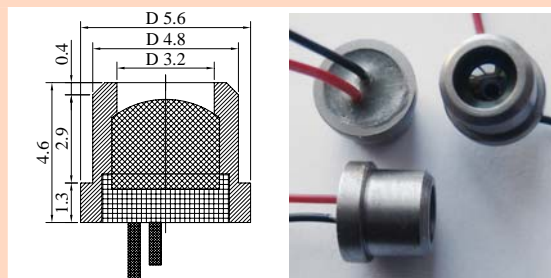
Optically Immersed 2.1 μm Photodiode

PD21Su, PD21Sr

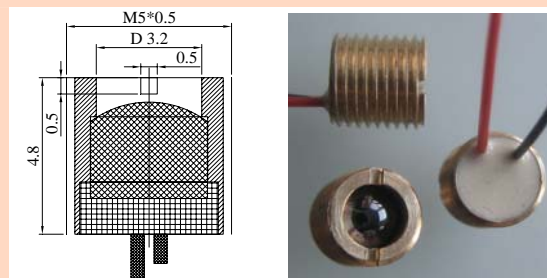
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|---------------------|------------------------|----------------------------------|-----------------------|
| Peak wavelength | λ_{\max} | μm | 2.05 |
| Current sensitivity | S_I | A/W | ≥0.5 |
| Shunt Resistance | R_0 | kOhm | ≥7 |
| Detectivity | $D^*_{\lambda_{\max}}$ | $\text{cmHz}^{1/2}\text{W}^{-1}$ | ≥0.8×10 ¹¹ |
| Voltage sensitivity | S_U | V/W | ≥3500 |
| Switching time | τ | ns | ≤20 |

| Model | Sensitive area, mm | Lens material | Field of view, deg. | Optical axis deviation, deg. | Operation conditions, °C | Lifetime, hrs | Polarity |
|-----------|--------------------|---------------|---------------------|------------------------------|--------------------------|---------------|---|
| PD21Su/Sr | Ø 3.2 | Si | ~15 | ≤5 | -25÷+60 | >80 000 | Red wire (red point on house) – positive, Black or/and short wire– negative |

Product view



PD21Su



PD21Sr

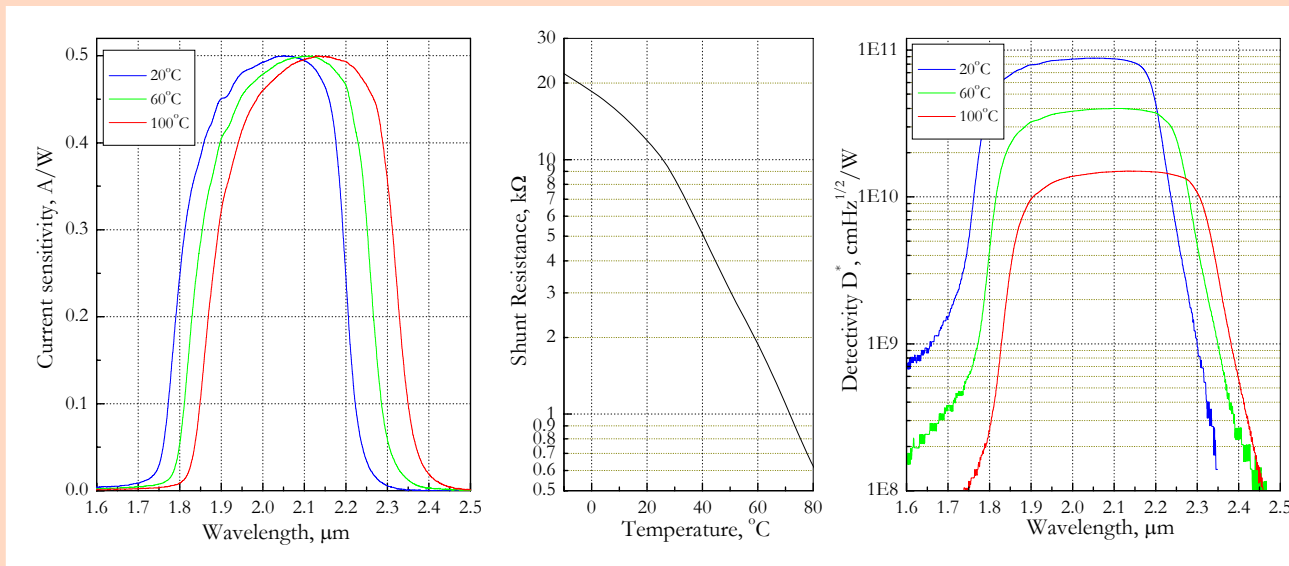
Features

Growth of narrow gap semiconductor alloys onto n⁺-GaSb substrate; Back side illuminated Flip-chip design of PDs; Optical coupling through the use of chalcogenide glasses and Si lenses with antireflection coating

Ambient and high temperature operation; No bias required; Short time constant; High value of shunt resistance; Operation from DC to VHF; Highest long term stability

Photodiode could be equipped with preamplifier that is designed for conversion of PD photocurrent into a convenient output voltage and is adjusted for the particular PD taking into account the R_0 value and frequency range. Other packages are available upon request. Angle of view is small and thus we recommend adjusting PD position regarding to the emission system before final evaluation/use of the devices.

Spectral response and shunt resistance vs. temperature



Product specifications are subject to change without prior notice due to improvements or other reasons. Updated 3.11.11



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