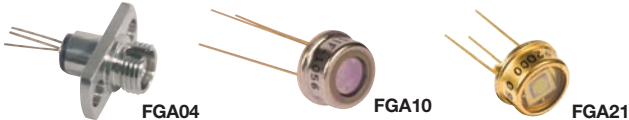


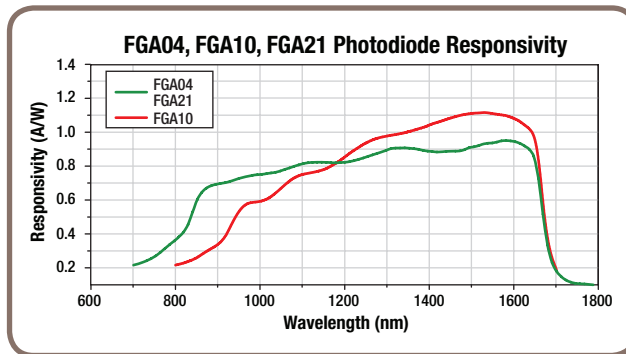
## High-Speed InGaAs Photodiodes

- **FGA04:** TO-46 Package, Direct FC/PC Coupled, High Responsivity
- **FGA10:** Low Capacitance and High Responsivity in a TO-5 Package
- **FGA21:** Large Active Area in a TO-5 Package

The FGA21-CAL calibrated photodiode comes with device-specific calibration data. All of Thorlabs' calibrated photodiodes have a measurement uncertainty of  $\pm 5\%$  and are NIST traceable.



## Calibrated Photodiode Available



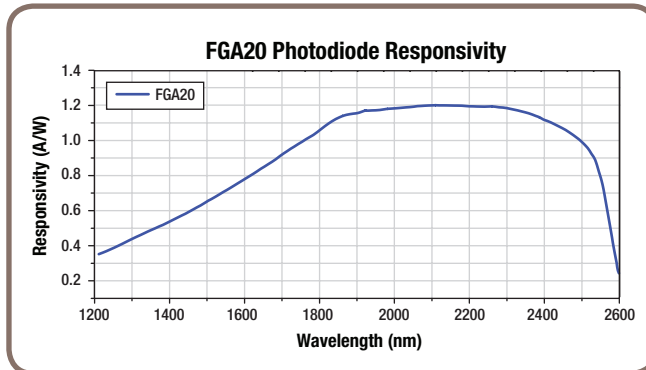
ITEM #	\$	£	€	RMB	RISE TIME*	ACTIVE AREA	NEP	DARK CURRENT	WAVELENGTH
FGA04	\$ 140.00	£ 100.80	€ 121.80	¥ 1,115.80	100 ps @ 12 V	Fiber Input, Ø100 µm	$1.5 \times 10^{-15} \text{ W}/\sqrt{\text{Hz}}$	0.5 nA (5 V) Typical	800 – 1800 nm
FGA10	\$ 158.10	£ 113.83	€ 137.55	¥ 1,260.06	5 ns @ 12 V	0.8 mm <sup>2</sup> (Ø1 mm)	$2.5 \times 10^{-14} \text{ W}/\sqrt{\text{Hz}}$	25 nA (5 V) Typical	700 – 1800 nm
FGA21	\$ 212.00	£ 152.64	€ 184.44	¥ 1,689.64	66 ns @ 0 V	3.14 mm <sup>2</sup> (Ø2 mm)	$3 \times 10^{-14} \text{ W}/\sqrt{\text{Hz}}$	200 nA (1 V) Max	800 – 1800 nm
FGA21-CAL	\$ 356.00	£ 256.32	€ 309.72	¥ 2,837.32	66 ns @ 0 V	3.14 mm <sup>2</sup> (Ø2 mm)	$3 \times 10^{-14} \text{ W}/\sqrt{\text{Hz}}$	200 nA (1 V) Max	800 – 1800 nm

\*Photodiodes measured with 50 Ω load

## Long Wavelength InGaAs Photodiode

- Wavelength Range: 1200 – 2600 nm
- High Responsivity
- TO-18 Package

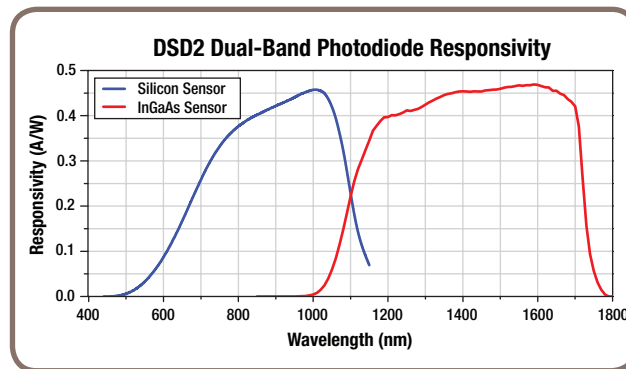
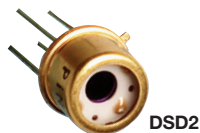
The FGA20 photodiode provides high responsivity from 1200 to 2600 nm, allowing detection of wavelengths beyond the 1800 nm limit of typical InGaAs photodiodes, such as those featured above.



ITEM #	\$	£	€	RMB	RISE TIME	ACTIVE AREA	NEP	DARK CURRENT	WAVELENGTH
FGA20	\$ 254.00	£ 182.88	€ 220.98	¥ 2,024.38	23.0 ns @ 1 V	0.790 mm <sup>2</sup> (Ø1 mm)	$2 \times 10^{-12} \text{ W}/\sqrt{\text{Hz}}$	75 µA (1 V)	1200 – 2600 nm

## Dual-Band Detector

The DSD2 is a two-element photodiode, which uses Si and InGaAs detectors stacked on top of each other, providing a very wide spectral response. The DSD2 has four pins, two for each sensor. This TO-5 packaged detector is ideal for remote temperature measurements where an extremely wide wavelength range needs to be monitored.



ITEM #	\$	£	€	RMB	RISE TIME	ACTIVE AREA	NEP (950 nm/1550 nm)	WAVELENGTH
DSD2	\$ 532.00	£ 383.04	€ 462.84	¥ 4,240.04	4 µs Typical Both Layers	Ø2.54 mm / Ø1.5 mm	$1.9 \times 10^{-14} \text{ W}/\sqrt{\text{Hz}}$ (Si) $2.1 \times 10^{-13} \text{ W}/\sqrt{\text{Hz}}$ (InGaAs)	400 – 1800 nm