



**NEW**

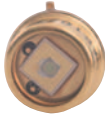
## InGaAs Photodiodes

### FGA04 High Speed Fiber Coupled Photodiode



**Features:**

- Direct FC Coupled
- High Responsivity
- 1200nm-1800nm Spectral Range



**FGA10**

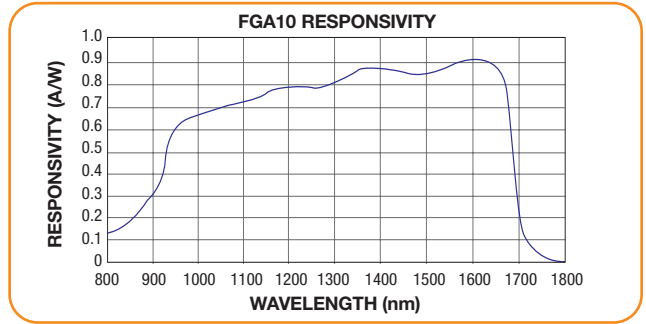
**Features:**

- High Responsivity
- Low Capacitance
- 1200nm-1800nm

**FGA21**

**Features:**

- TO-5 Package
- Large Active Area
- 1200nm-1800nm



ITEM#	\$	£	€	¥	RISE TIME <sup>1</sup>	ACTIVE AREA	NEP	DARK CURRENT	SPECTRAL RANGE
FGA04	\$ 132.00	£ 99.00	€ 138,60	¥ 22,440	100ps@12V	Fiber Input	$1.5 \times 10^{-13} \text{W}/\sqrt{\text{Hz}}$	0.5nA @ -5V	800-1800nm
FGA10	\$ 149.00	£ 111.75	€ 156,45	¥ 25,330	5ns@12V	0.8mm <sup>2</sup> (Ø1mm)	$1 \times 10^{-14} \text{W}/\sqrt{\text{Hz}}$	25nA @ -5V	800-1800nm
FGA21	\$ 181.00	£ 135.75	€ 190,05	¥ 30,770	66ns@ 0V	3.14mm <sup>2</sup> (Ø2mm)	$3 \times 10^{-14} \text{W}/\sqrt{\text{Hz}}$	200nA @ -1V	800-1800nm

1) Measured with 50Ω load

2) Measured at peak wavelength of 1550nm

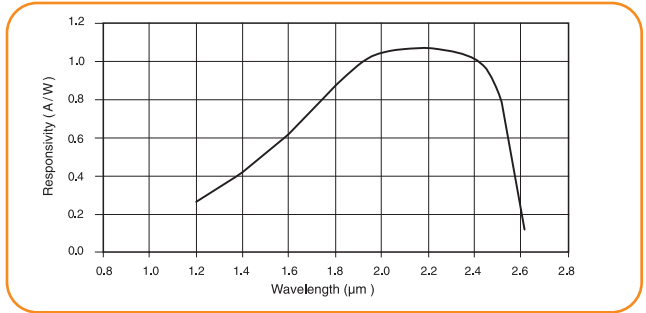
### FGA20 Long Wavelength InGaAs Photodiode



**Features:**

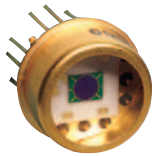
- 1200-2600nm Spectral Range
- High Responsivity
- TO-18 Package

The FGA20 photodiode provides high responsivity from 1200-2600nm, allowing detection of wavelengths beyond the normal 1800nm range of typical InGaAs photodiodes.



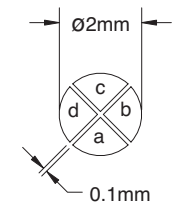
ITEM#	\$	£	€	¥	PEAK WAVELENGTH	ACTIVE AREA	NEP	DARK CURRENT	SPECTRAL RANGE
FGA20	\$ 228.50	£ 171.38	€ 239,92	¥ 38,845	2.3µm	Ø1mm	$2 \times 10^{-12} \text{W}/\sqrt{\text{Hz}}$	15µA @ -1V	1200-2600nm

### PSD1 Quadrant Detector



The PSD1 is a four quadrant position sensitive InGaAs photodiode that is ideal for precise position detection. The output of the device provides four currents relative to the position of a light spot on the detector surface. For best accuracy the light spot must be in all four quadrants.

**PSD1 Active Area**

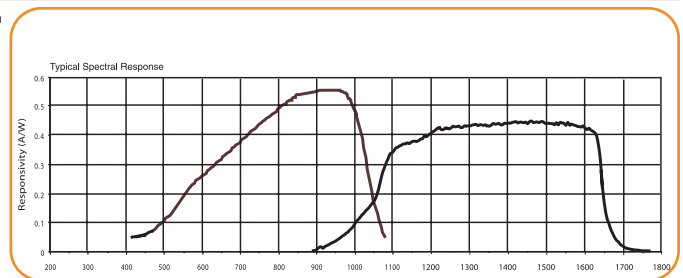


ITEM#	\$	£	€	¥	PEAK WAVELENGTH	ACTIVE AREA	NEP	DARK CURRENT	SPECTRAL RANGE
PSD1	\$ 1,386.00	£ 1,039.50	€ 1,455,30	¥ 235,620	1.5µm	Ø2mm	$2 \times 10^{-14} \text{W}/\sqrt{\text{Hz}}$	0.15nA @ -1V	900-1700nm

### DSD2 Dual Sandwich Detector



The DSD2 is a two element photodiode, Silicon and InGaAs, providing a very wide spectral response. This detector is ideal for remote temperature measurements where an extremely wide wavelength range needs to be monitored.



ITEM#	\$	£	€	¥	PEAK WAVELENGTHS	ACTIVE AREA	RISE TIME	SPECTRAL RANGE
DSD2	\$ 398.00	£ 298.50	€ 417,90	¥ 67,660	950/1300nm	Ø2.54mm / Ø1.5mm	4µs typ.both layers	400-1700nm



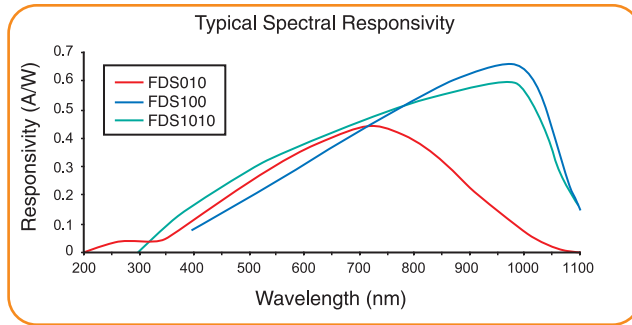
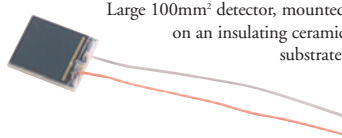
## Photodiodes: Si

**FDS010**  
Fast 1ns small area Si detector packaged in a T05 transistor can with a UV grade Fused Silica window to provide sensitivity down to 200nm.



**FDS100**  
Large area Si detector packaged in a T05 can.

**FDS1010**  
Large 100mm<sup>2</sup> detector, mounted on an insulating ceramic substrate.



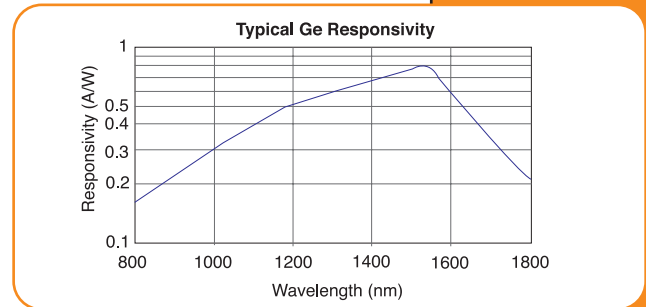
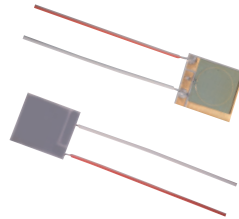
ITEM#	\$	£	€	¥	RISE TIME <sup>1</sup>	ACTIVE AREA	NEP	DARK CURRENT	SPECTRAL RANGE
FDS100	\$ 12.60	£ 9.45	€ 13,23	¥ 2,142	20ns	13mm <sup>2</sup> (3.6 x 3.6mm)	1.2x10 <sup>-14</sup> W/√Hz	20nA	350-1100nm
FDS010	\$ 39.57	£ 29.68	€ 41,55	¥ 6,727	1ns	0.8mm <sup>2</sup> (Ø1mm)	5x10 <sup>-14</sup> W/√Hz	2.5nA	200-1100nm
FDS1010	\$ 41.25	£ 30.94	€ 43,31	¥ 7,012	40ns	100mm <sup>2</sup> (10 x 10mm)	4x10 <sup>-13</sup> W/√Hz	0.6µA	350-1100nm

1) Measured with 50Ω load and 12V Bias

## Photodiodes: Ge

### Features

- Large Active Area: Ø5.00mm
- Ideal for Pulsed and CW Sources
- Package Size: 0.275" x 0.310"
- 800nm-1800nm Spectral Range
- AR Coated for 1300-1550nm

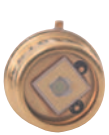


ITEM#	\$	£	€	¥	RISE TIME <sup>1</sup>	ACTIVE AREA	NEP	DARK CURRENT	SPECTRAL RANGE
FDG03	\$ 91.00	£ 68.25	€ 95,55	¥ 15,470	500ns@3V	7mm <sup>2</sup> (Ø3mm)	1 x 10 <sup>-12</sup> W/√Hz	4.0µA@-1V	800-1800nm
FDG05	\$ 219.00	£ 164.25	€ 229,95	¥ 37,230	220ns@5V	25mm <sup>2</sup> (5 x 5mm)	4.0 x 10 <sup>-12</sup> W/√Hz	40µA@-3V	800-1800nm
FDG1010	\$ 382.00	£ 286.50	€ 401,10	¥ 64,940	3.5µs@1V	100mm <sup>2</sup> (10 x 10mm)	4.0 x 10 <sup>-12</sup> W/√Hz	40µA@-0.5V	800-1800nm

1) Measured with 50Ω load

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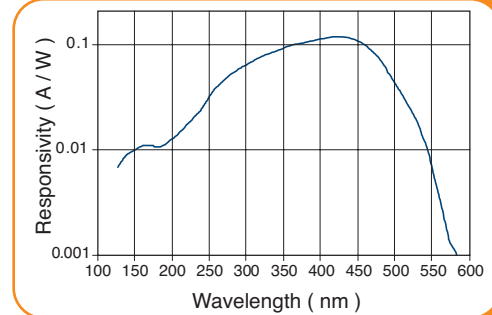
## Photodiodes: GaP



### FGAP71 Features

- High Responsivity (0.12 A/W @ 440nm)
- Rise Time 1ns / Fall Time 140ns
- 150 - 550nm Spectral Range

The FGAP71 has a wide bandwidth and high spectral sensitivity in the UV and visible ranges (150 - 550 nm). The diode is mounted in hermetically sealed packages with a sapphire window.



ITEM#	\$	£	€	¥	RISE/FALL TIME <sup>1</sup>	ACTIVE AREA	NEP	DARK CURRENT	SPECTRAL RANGE
FGAP71	\$ 81.00	£ 60.75	€ 85,05	¥ 13,770	1ns /140ns	4.8mm <sup>2</sup>	1.0 x 10 <sup>-14</sup> W/√Hz	10nA max.	150-550nm

1) Measured with 50Ω load

## Diode Sockets



**S8058**  
Ø0.406" O.D.  
Ø0.20" Pin Circle  
Use With: FDS100, FDS010 & FGA10



**S8060**  
Ø0.25" O.D.  
Ø0.13" Pin Circle  
Use With: FGA04 & FGA20

ITEM#	\$	£	€	¥	DESCRIPTION
S8058	\$ 8.40	£ 6.30	€ 8,82	¥ 1,428	Socket for T05 Diode Package
S8060	\$ 5.49	£ 4.12	€ 5,76	¥ 933	Socket for FGA04 Diode

**TOOLS OF THE TRADE**

**High Speed Detectors See Page 774**



SV2-FC

2 TO 7GHZ Detector Packages

