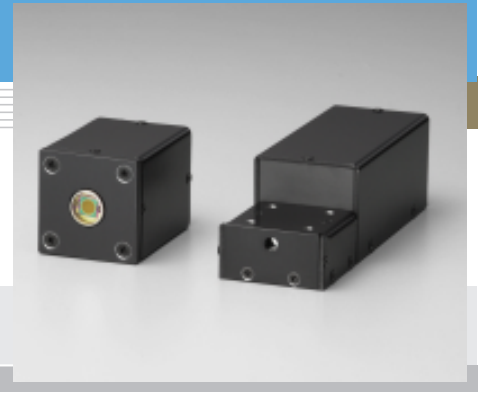


# Infrared detector module with preamp Non-cooled Type



## Easy-to-use detector module with built-in preamp

These Infrared detector modules with preamp are designed to operate at room temperatures by just connecting to a DC power supply. The detector element is selectable from among InGaAs, PbSe and Ge. B7506-01 detector is especially suited for CO<sub>2</sub> laser detection. We welcome requests for custom devices that suit your application.

### Features

- Compact size
- Easy-to-use  
Operates just by connecting to DC power supply
- Circuit design optimized for detector element characteristics

### Applications

- Infrared detection
- CO<sub>2</sub> laser detection

### Accessories (Optional)

- Power supply for non-cooled type (±15 V) C3871

### Accessories (Supplied)

- 4-conductor cable for non-cooled type (for connection to DC power supply): 2 m (connector installed on one end) A4372-02
- Instruction manual

### Specifications / Absolute maximum ratings

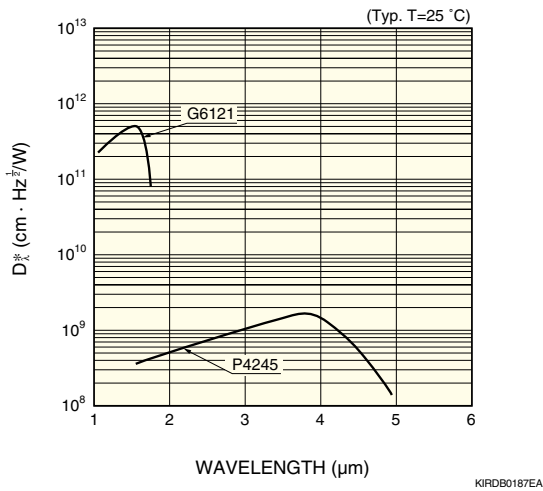
Type No.	Detector element	Active area (mm)	External input voltage (V)	Absolute maximum ratings				
				Current consumption (mA)	Incident light level *		Operating temperature T <sub>opr</sub> (°C)	Storage temperature T <sub>stg</sub> (°C)
					CW light (J/cm <sup>2</sup> )	Pulse light (MW)		
G6121	InGaAs	φ5	±15	±15	-	-	0 to +40	-20 to +50
P4245	PbSe	3 × 3		±15				
B7506-01	Photon drag	φ4.6		+30, -10	1	1		

\* Light level at which photon drag detector temperature does not exceed 60 °C

### Electrical and optical characteristics (Typ.)

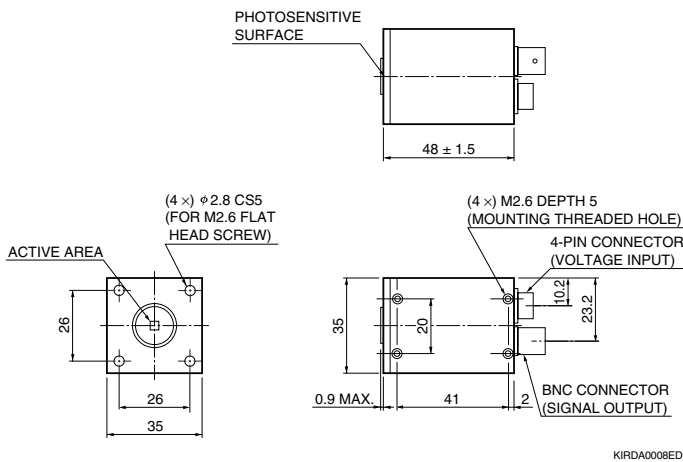
Type No.	Measurement condition	Peak sensitivity wavelength λ <sub>p</sub> (μm)	Cut-off wavelength λ <sub>c</sub> (μm)	Photo sensitivity S λ=λ <sub>p</sub> (V/W)	NEP (W/Hz <sup>1/2</sup> )	Frequency response -3 dB (Hz)	Output impedance (Ω)	Output voltage R <sub>L</sub> =1 kΩ (V)
	Element temperature T (°C)							
G6121	25	1.55	1.7	1 × 10 <sup>6</sup>	5 × 10 <sup>-13</sup>	DC to 8 k	50	+10
P4245		4.0	4.8	5 × 10 <sup>4</sup>	2 × 10 <sup>-10</sup>	0.2 to 10 k		±10
B7506-01		10.6	-	0.013	3 × 10 <sup>-2</sup>	50 to 500 k		±10

## ■ Spectral response

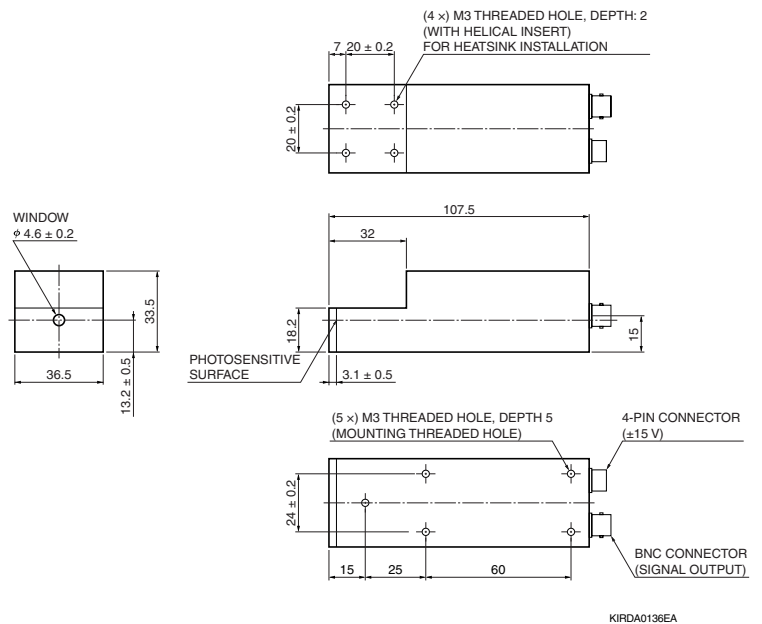


## ■ Dimensional outlines (unit: mm)

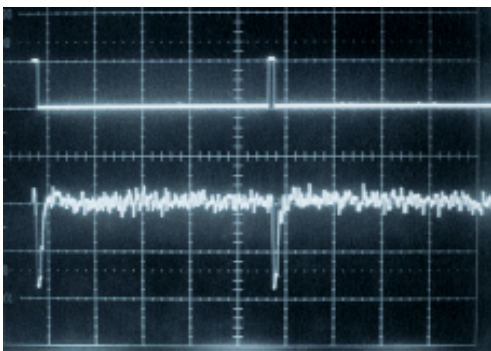
**G6121, P4245**



**B7506-01**



## ■ Output waveform example (B7506-01)



Input beam	CO <sub>2</sub> laser
Peak power	45 W
Repetition rate	100 Hz
Pulse width	200 μs

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