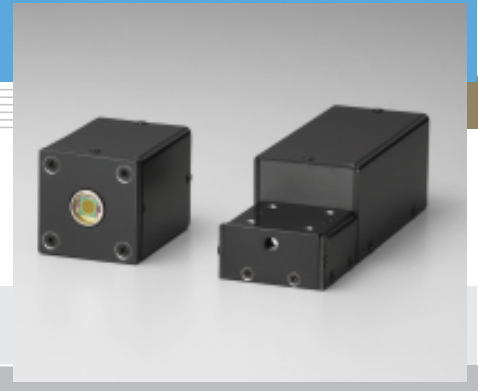


Infrared detector module with preamp Non-cooled Type



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 CO₂ 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
- CO₂ 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

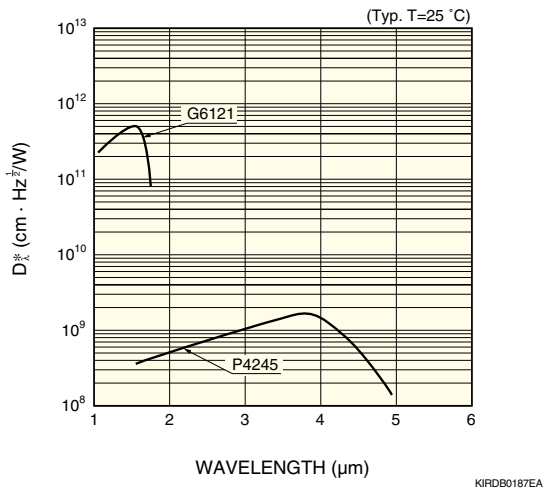
Type No.	Detector element	Active area (mm)	External input voltage (V)	Absolute maximum ratings				
				Current consumption (mA)	Incident light level *		Operating temperature T _{opr} (°C)	Storage temperature T _{stg} (°C)
					CW light (J/cm ²)	Pulse light (MW)		
G6121	InGaAs	φ5	±15	±15	-	-	0 to +40	-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.)

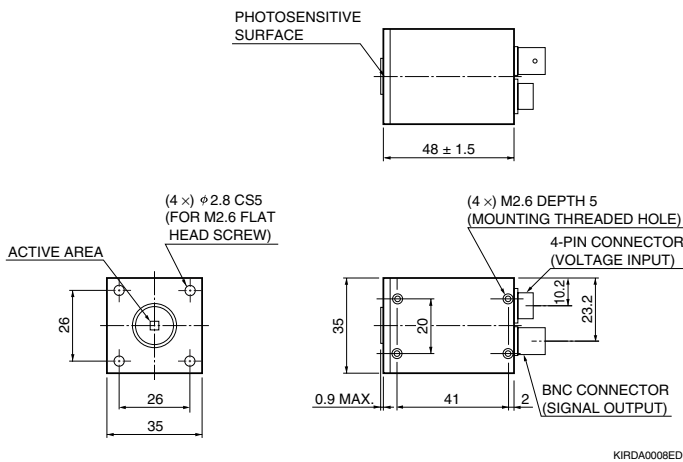
Type No.	Measurement condition	Peak sensitivity wavelength λ _p (μm)	Cut-off wavelength λ _c (μm)	Photo sensitivity S λ=λ _p (V/W)	NEP (W/Hz ^{1/2})	Frequency response -3 dB (Hz)	Output impedance (Ω)	Output voltage R _L =1 kΩ (V)
	Element temperature T (°C)							
G6121	25	1.55	1.7	1 × 10 ⁶	5 × 10 ⁻¹³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

■ Spectral response

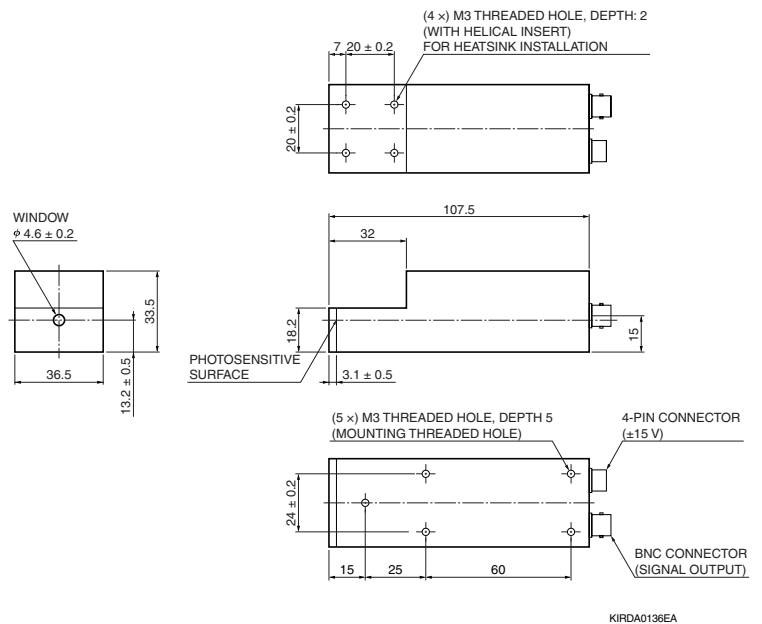


■ Dimensional outlines (unit: mm)

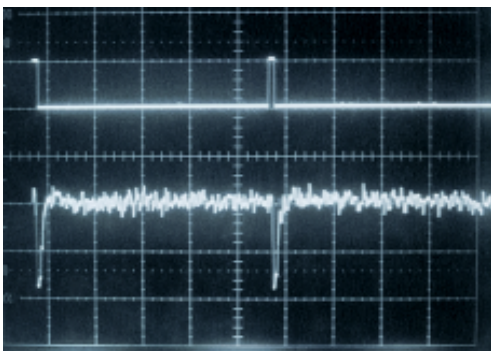
G6121, P4245



B7506-01



■ Output waveform example (B7506-01)



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

HAMAMATSU

Information furnished by HAMAMATSU is believed to be reliable. However, no responsibility is assumed for possible inaccuracies or omissions. Specifications are subject to change without notice. No patent rights are granted to any of the circuits described herein. ©2001 Hamamatsu Photonics K.K.

HAMAMATSU PHOTONICS K.K., Solid State Division

1126-1 Ichino-cho, Hamamatsu City, 435-8558 Japan, Telephone: (81) 053-434-3311, Fax: (81) 053-434-5184, <http://www.hamamatsu.com>

U.S.A.: Hamamatsu Corporation: 360 Foothill Road, P.O.Box 6910, Bridgewater, N.J. 08807-0910, U.S.A., Telephone: (1) 908-231-0960, Fax: (1) 908-231-1218

Germany: Hamamatsu Photonics Deutschland GmbH: Arzbergerstr. 10, D-82211 Herrsching am Ammersee, Germany, Telephone: (49) 08152-3750, Fax: (49) 08152-2658

France: Hamamatsu Photonics France S.A.R.L.: 8, Rue du Saule Trapu, Parc du Moulin de Massy, 91882 Massy Cedex, France, Telephone: 33-(1) 69 53 71 00, Fax: 33-(1) 69 53 71 10

United Kingdom: Hamamatsu Photonics UK Limited: 2 Howard Court, 10 Tewin Road, Welwyn Garden City, Hertfordshire AL7 1BW, United Kingdom, Telephone: (44) 1707-294888, Fax: (44) 1707-325777

North Europe: Hamamatsu Photonics Norden AB: Smidesvägen 12, SE-171 41 Solna, Sweden, Telephone: (46) 8-509-031-00, Fax: (46) 8-509-031-01

Italy: Hamamatsu Photonics Italia S.R.L.: Strada della Moia, 1/E, 20020 Arese, (Milano), Italy, Telephone: (39) 02-935-81-733, Fax: (39) 02-935-81-741