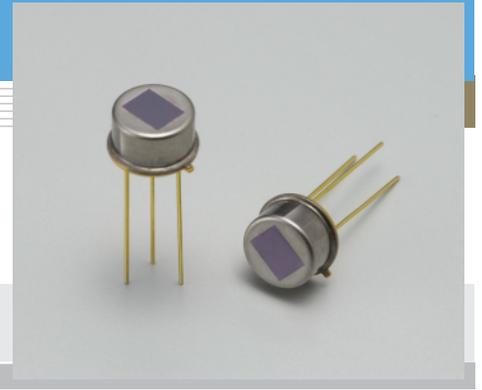


Pyroelectric detector P7108 series

Quadrant pyroelectric detectors



P7108 series is a quadrant pyroelectric detector with a built-in FET, having four elements connected in series in a 2 × 2 format. This quadrant element format allows detecting the minute motion of an object, independent of its movement direction. A desired field of view can be obtained by selecting a lens that best matches your application.

Features

- Detects minute movements of the human body
- Independent of movement direction
- Various types of lenses available (including custom-made lenses)

Applications

- Intruder alarms
- Automatic light switches
- Home electrical appliances
- Electronic toys

■ Specification / Absolute maximum ratings

Type No.	Window material	Active area (mm)	Operating voltage (V)	Absolute maximum ratings	
				Operating temperature Topr (°C)	Storage temperature Tstg (°C)
P7108	6.5 μm long-pass filter	1 × 1 (× 4 element)	3 to 15	-20 to +60	-30 to +85
P7108-02	5 μm long-pass filter				

■ Electrical and optical characteristics (Typ. Ta=25 °C, unless otherwise noted)

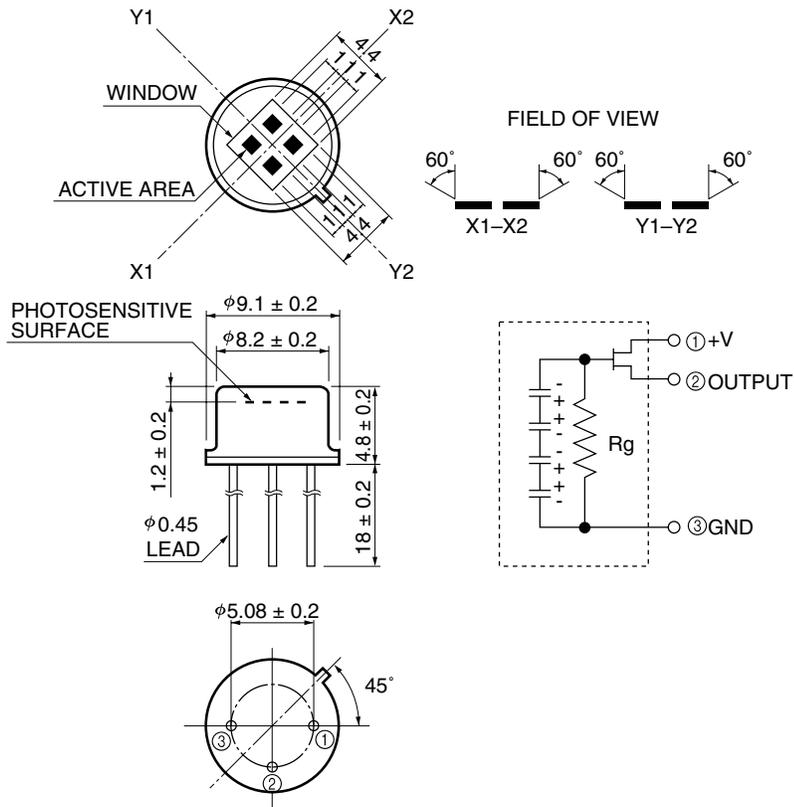
Type No.	Spectral response range (μm)	Sensitivity *1 (420, 1) (V/W)	Temp. coefficient of sensitivity (%/°C)	Noise Max. (μV/Hz ^{1/2})	D* *2 (420, 1, 1) (cm · Hz ^{1/2} /W)	NEP *2 (420, 1, 1) (W/Hz ^{1/2})	Offset voltage RL=22 kΩ (V)
P7108	7 to 20	2200 *3	0.2	20	2.2 × 10 ⁷	4.5 × 10 ⁻⁹	0.2 to 1.0
P7108-02	5 to 20	2800 *3			2.8 × 10 ⁷	3.5 × 10 ⁻⁹	

*1: Measured with 420 K black body and 1 Hz chopping frequency.

*2: Measured under the same conditions as *1 and 1 Hz bandwidth.

*3: Sensitivity per element.

■ Dimensional outline (unit: mm)



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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