

ABSTRACT

INFRARED RAY RECEIVING ELEMENT AND INFRARED RAY SENSOR USING THE SAME

An infrared ray sensor comprising an infrared ray receiving element having a substrate of a pyroelectric material and a cantilever portion, part of the cantilever portion in the substrate uniformly polarized in the same direction and the remainder part polarized randomly; a pair of electrodes on a top and bottom surfaces of the cantilever portion; a base member for holding the infrared ray receiving element; a circuit substrate for detecting infrared ray; a cover with an infrared ray transmittable window, the cover having a substrate of pyroelectric material and a cantilever portion, part of the substrate of the cantilever portion uniformly polarized in the same direction and the remainder part polarized randomly; and a pair of electrodes on a top surface and a bottom surface of the cantilever portion, such configuration resulting in hardly any "popcorn noise" when the temperature of the substrate changes.

Fig. 1