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The invention relates to the semiconductor photodiodes with coordinate sensitivity and may be utilized in optical systems for the optical signals detection and processing, transmitted through the atmosphere with the quick-moving objects orientation and controlling purpose.

The summary of the invention consists in the fact that the selective quadrant photodiode comprises the semiconductor substrate InP, the active layer Inx1 Ga1-x1Asy1P1-y1, the frontal layer Inx2 Ga1-x2Asy2P1-y2, metallic contacts, placed on the back and frontal sides with the surface divided into four photoelements in the form of sectors of a circle and peripheral round guard ring, but in the centre of the quadrant is made an electrical insulated photodetector with the ratio between the photodetector diameter and the quadrant diameter less than 1 : 10.

The technical result of the invention consists in getting a sharp coordinate characteristic of the photodiode, which is able to detect single optical signals with the pulse duration less than 10 ns and optical signals with a frequency more than 1 GHz.

Claims: 1

Fig.: 2