

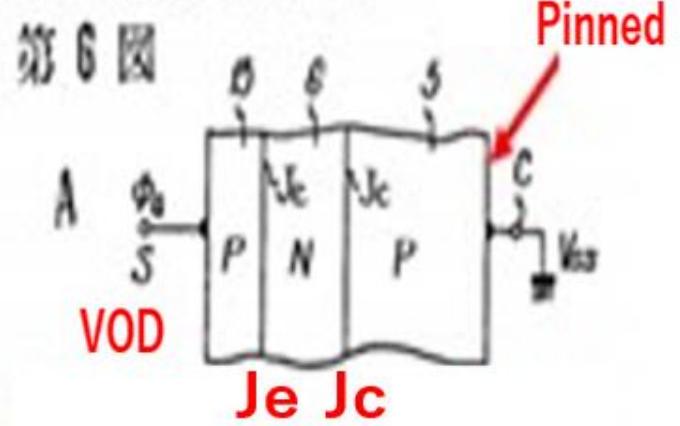
Invention and Historical Development Efforts of Pinned Buried Photodiode.

English Translation of JPA1975-134985

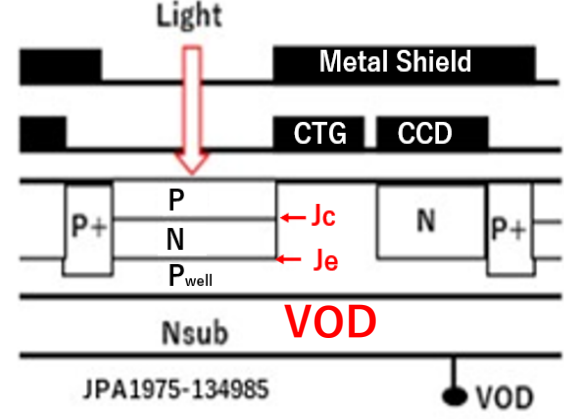
On a semiconductor substrate (N_{sub}), formig the first region (P) and also forming the second region (N) upon it, the photo detecting part is formed, from which the photo charge is tranfered to the charge transfer device placed along the semiconductor surface. On the second region a rectifying junction is formed and called as the emitter junction (J_e). A transistor structure is formed then with the collector junction (J_c) between the first region (N) and the seoncd region (P). The base region (N) of the transistor structure stores the signal charge according to the illuminated light intensity, from which photo charge is tranfered to charge transfer device.

In Figure 6,
 Light is at Jc side
 VOD is at Je side

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Original Sensor Structure



Upside Down Mirror Image of Structure defined in JPA1275-134985

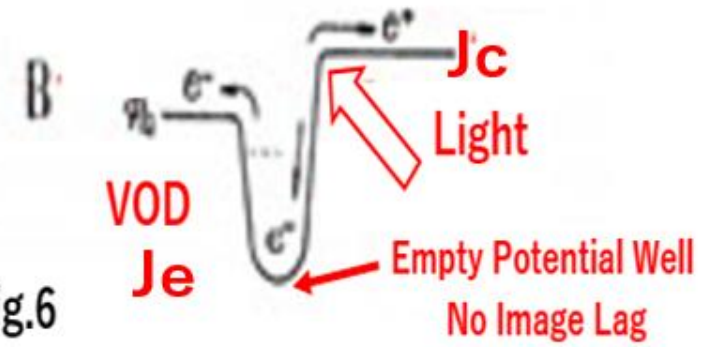
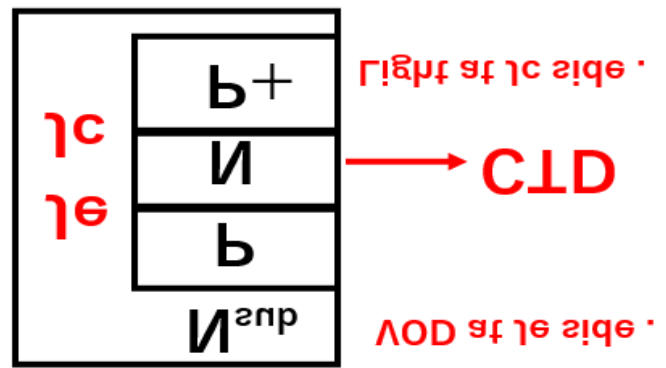


Fig.6