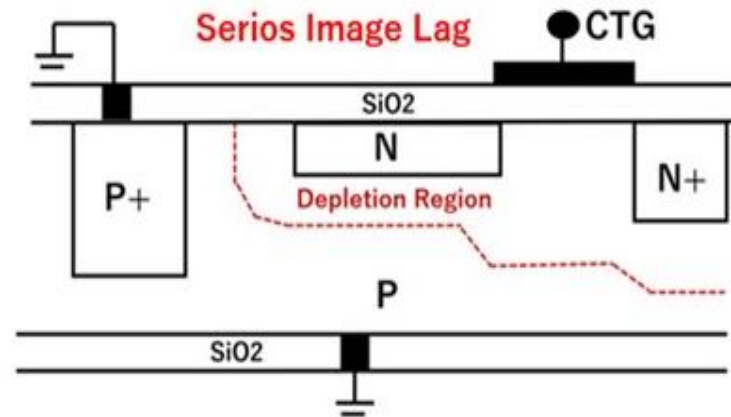
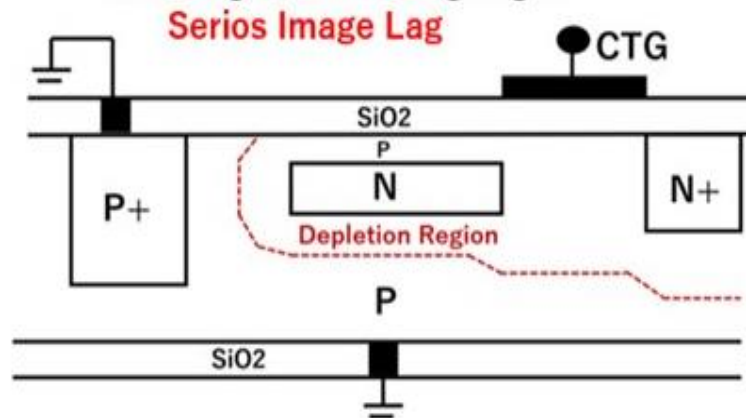


## Four Types of Basic Photo Sensor Structures

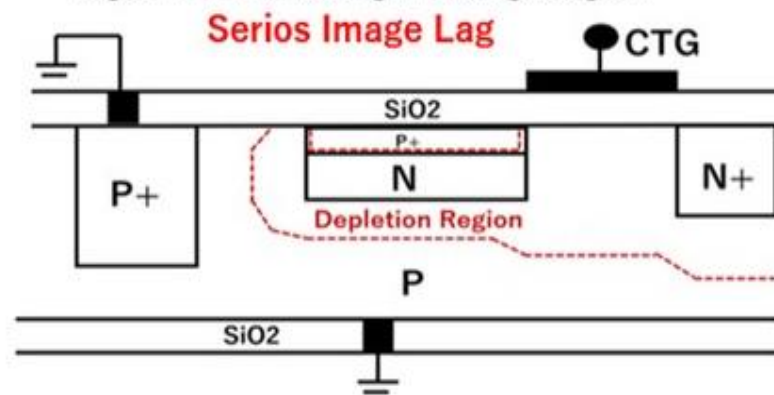
(A) Classical N+P Single Junction type Photodiode with the floating surface N storage region



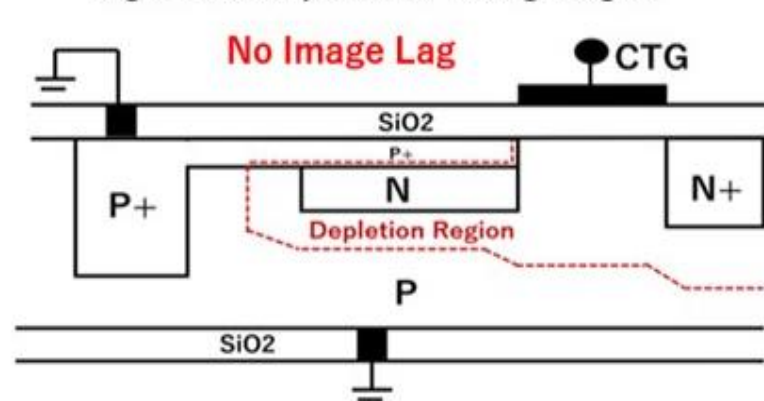
(B) Double Junction PNP type Buried Photodiode with the floating surface P region and the floating buried N storage region



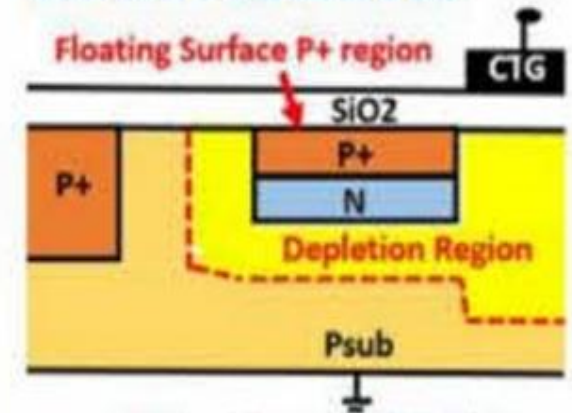
(C) Double Junction P+NP type Buried Photodiode with the floating surface P+ hole accumulation region and the floating N Storage Region.



(D) Double Junction P+NP type Pinned Photodiode with the pinned surface P+ hole accumulation region and the pinned N Storage Region

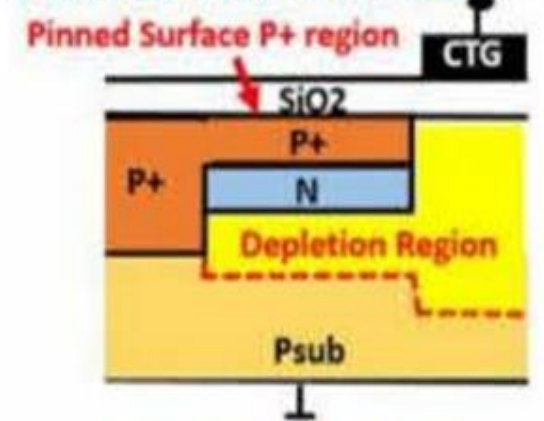


### Buried Photodiode



**Serious Image Lag Problem**

### Pinned Photodiode



**No Image Lag Problem**