

True History of Photodiode

(1) Single Junction Type Dynamic Photodiode before 1970

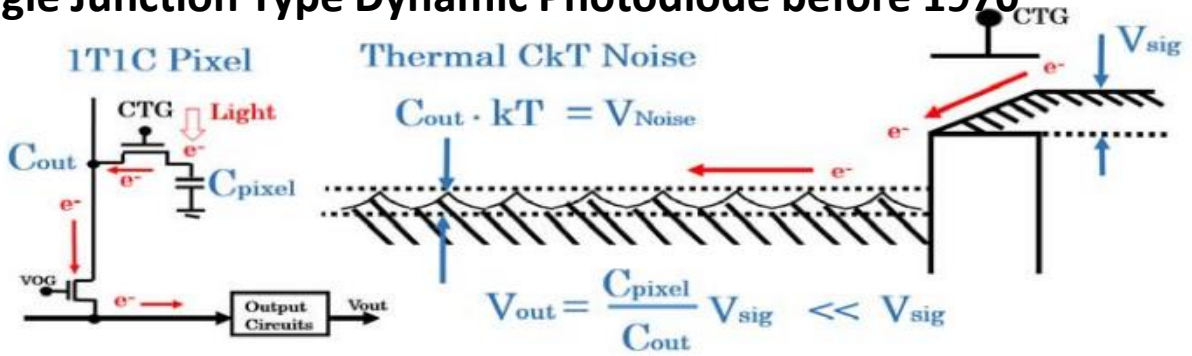
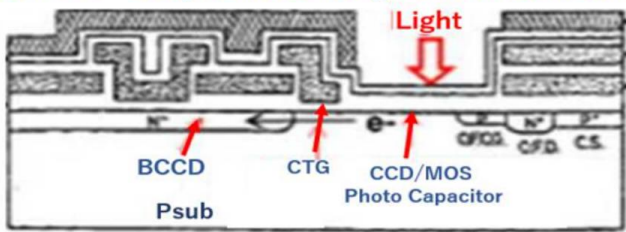


Figure 3. ITIC type MOS Image Sensor with a Large Output Data Line Capacitance.

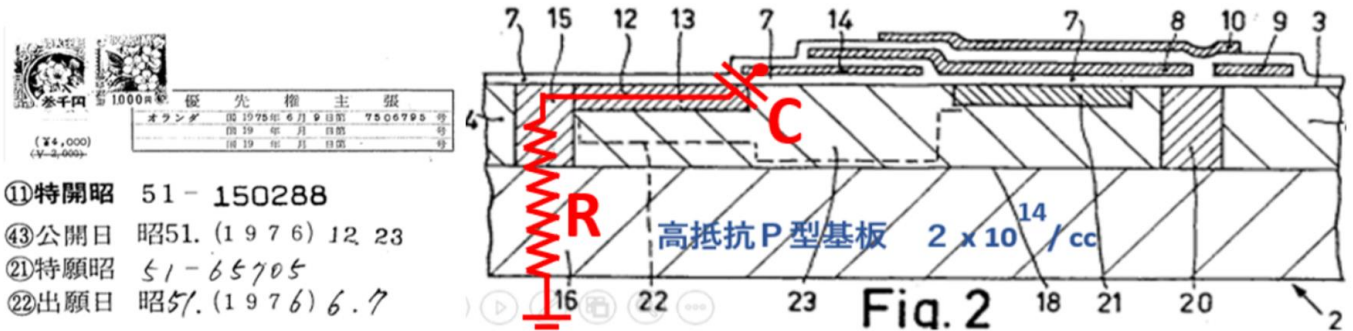
(2) CCD/MOS Capacitor type Dynamic Photodiode invented in 1970

ICX-008 Sony ILT CCD Image Sensor Structure



SONY 1980 Two-chip CCD Color Video Camera XC-1.

(3) Double Junction Buried Photodiode by Philips in June 6, 1975.



JPA1976-150288(Netherland Patent 7506795, priority June 7, 1975)

(4) Triple Junction type Pinned Photodiode with the pinned surface invented by Hagiwara at Sony in Oct 23, 1975.

N+NP+NP junction type Buried Pinned Photodiode with Built-in MOS Capacitor Buffer Memory Global Shutter Function and the surface N+N doping slope Barrier Electric Field Photo Pair Generation

