ABSTRACT OF THE DISCLOSURE

SUPPRESSION OF LEAKAGE CURRENT IN IMAGE ACQUISITION

In a manufacturing process of a display device, hydrogenation in an I layer of photodiodes D1 and D2 is progressed less than that in a channel portion of a pixel TFT, and a defect density due to dangling bonds not terminated in the I layer of the photodiodes D1 and D2 is made higher than a defect density in the channel portion of the pixel TFT. Thus, while suppressing a leakage current of the pixel TFT, the sensitivity of the photodiodes D1 and D2 to light is improved. Moreover, a gate electrode is provided above an i region of a pin-type optical sensor diode with an insulating film interposed therebetween. Thus, a gate voltage can control a threshold of a bias voltage when a current starts to flow into the optical sensor diode and a leakage current is prevented from flowing into the optical sensor diode.

Figure 13A