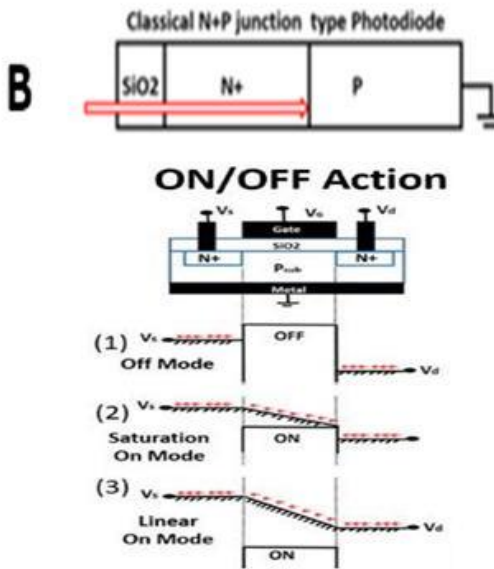
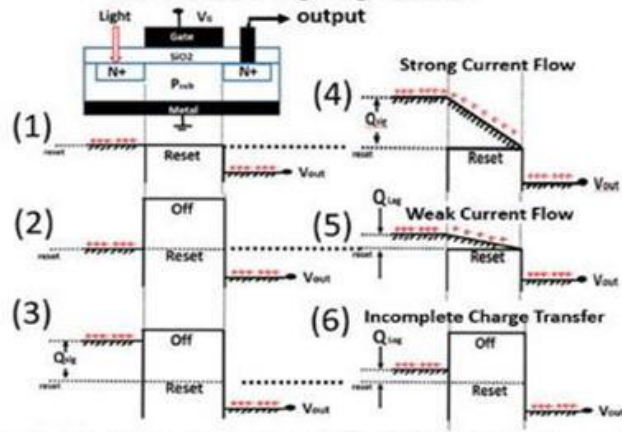


Super Light Sensitivity Feature



Classical MOS Image Sensor

with the N+P junction type Photodiode
with Serious Image Lag Problem



Slide 07

The image lag problem of the type B device, which is, the N+P junction photodiode is inherently caused by the floating potential level of the N+ diffusion photo electron storage region.

The floating N+ diffusion storage region is set nearly equal to the channel potential level under the adjacent charge transfer gate, by the gate oxide capacitance coupling.

The channel potential level under the charge transfer gate is in the weak inversion state of high resistivity for the short reset time causing the incomplete charge transfer.