

ANTI-ECLIPSE CIRCUITRY WITH TRACKING OF FLOATING DIFFUSION RESET LEVEL

ABSTRACT

An anti-eclipse circuit for an imager is formed from pixel circuitry over the same semiconductor substrate as the imaging pixels. More specifically, two adjacent pixel circuits are modified to form an amplifier. One input of the amplifier is adapted to receive a reset signal from one of the pixel circuits while another input is adapted to be set at a predetermined offset voltage from the output of the amplifier. The amplifier is preferably a unity gain amplifier, so that the output of the amplifier set to a voltage level equal to the predetermined offset from the voltage level of the reset signal. Accordingly, the anti-eclipse circuit outputs a reference voltage at predetermined level from the reset voltage of a pixel and does not need to be calibrated for fabrication related variances in reset voltages.

FIG. 6A