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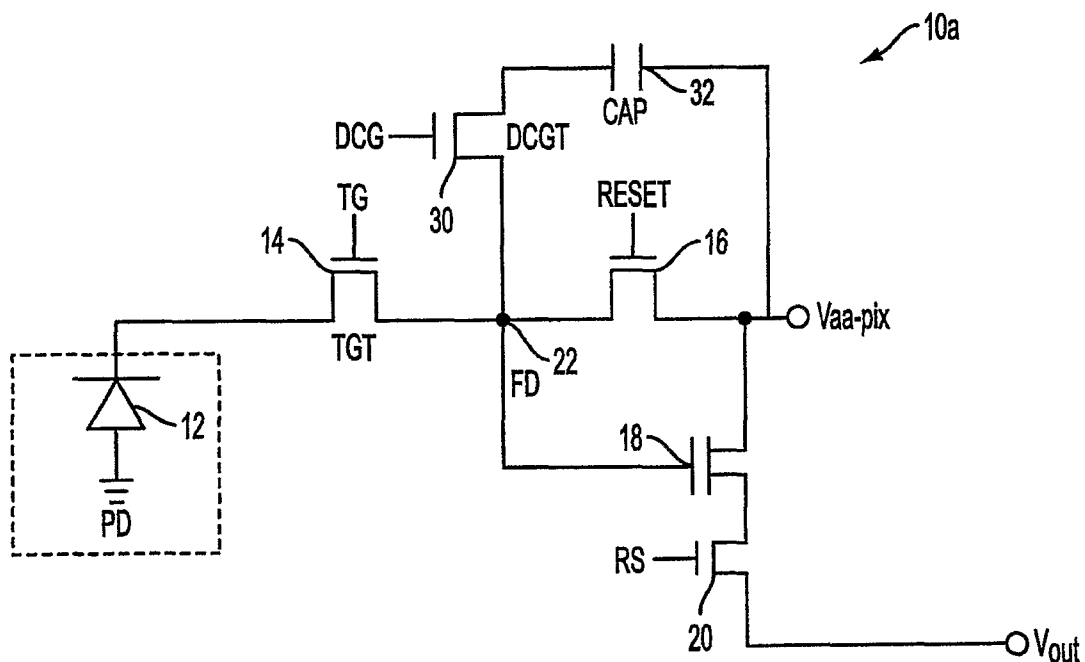
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(54) Title: DUAL CONVERSION GAIN IMAGERS



(57) Abstract: An imager with dual conversion gain floating diffusion regions. The dual conversion gain regions yield (1) high conversion gain and sensitivity to achieve excellent low light performance and (2) high full well capacity and conversion gain to achieve high dynamic range. A dual conversion gain element is coupled between each floating diffusion node and a respective capacitor. The dual conversion gain element switches in the capacitance of the capacitor to change the conversion gain of the floating diffusion node from a first conversion gain to a second conversion gain. The imager may be a CMOS or CCD type imager.

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