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(54) **PIXEL CIRCUIT, METHOD OF DRIVING THE SAME, AND ELECTRONIC APPARATUS**

(52) **U.S. Cl. 345/204; 345/694; 345/698**

(75) **Inventor: Toshiyuki Kasai, Okaya-shi (JP)**

(57) **ABSTRACT**

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To control variation in a driving current depending on V_{th} in a current program mode pixel circuit. In a state in which a variable current source $4a$ and a transistor $T3$ are electrically isolated from each other, a gate voltage of the diode-connected transistor $T3$ is set to an offset voltage ($V_{dd}-V_{th}$) according to a threshold voltage V_{th} thereof. Next, in a state in which the variable current source $4a$ and the transistor $T3$ are electrically connected to each other, data based on the offset voltage and according to a product of a data current I_{data} and a supply time thereof are written in a capacitor $C1$ connected to a gate of the transistor $T3$. And then, a driving current according to data stored in the capacitor $C1$ is generated by means of the transistor $T3$, whereby brightness of an organic EL element OLED is set.

(73) **Assignee: Seiko Epson Corporation, Tokyo (JP)**

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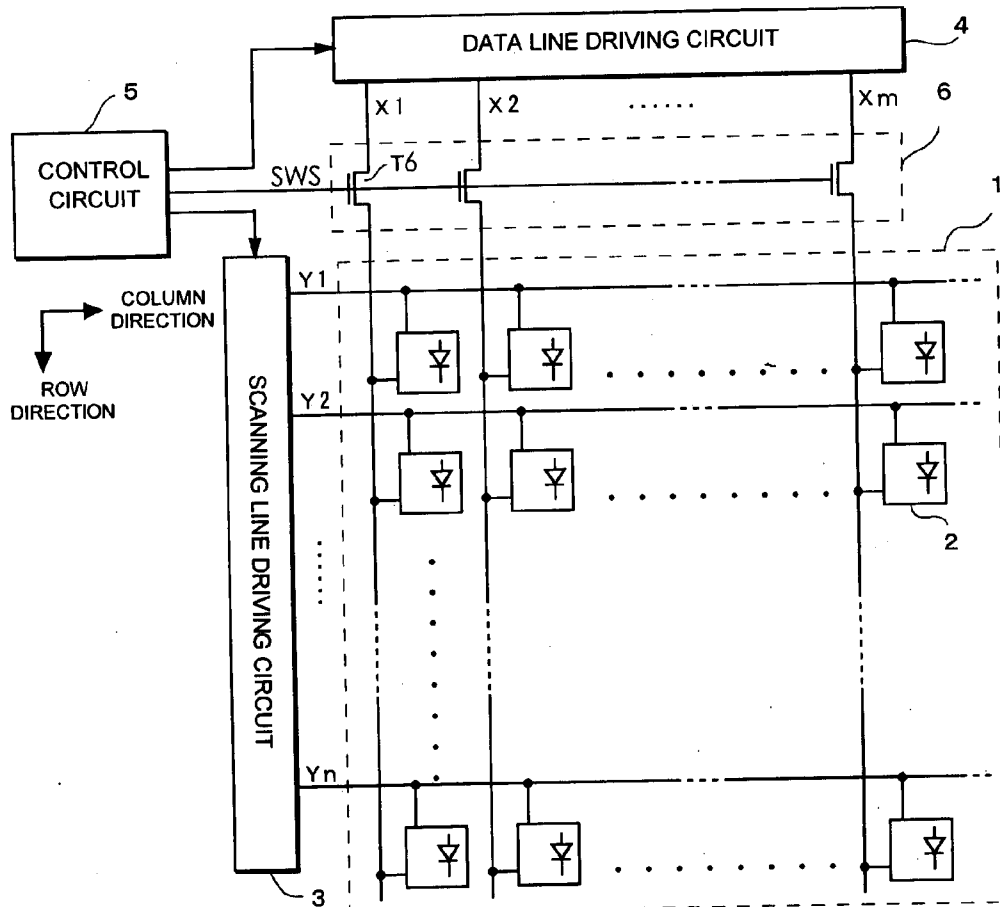
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Nov. 11, 2003 (JP) 2003-381271

Publication Classification

(51) **Int. Cl.⁷ G09G 5/00**



LG Display Co., Ltd.
Exhibit 1022

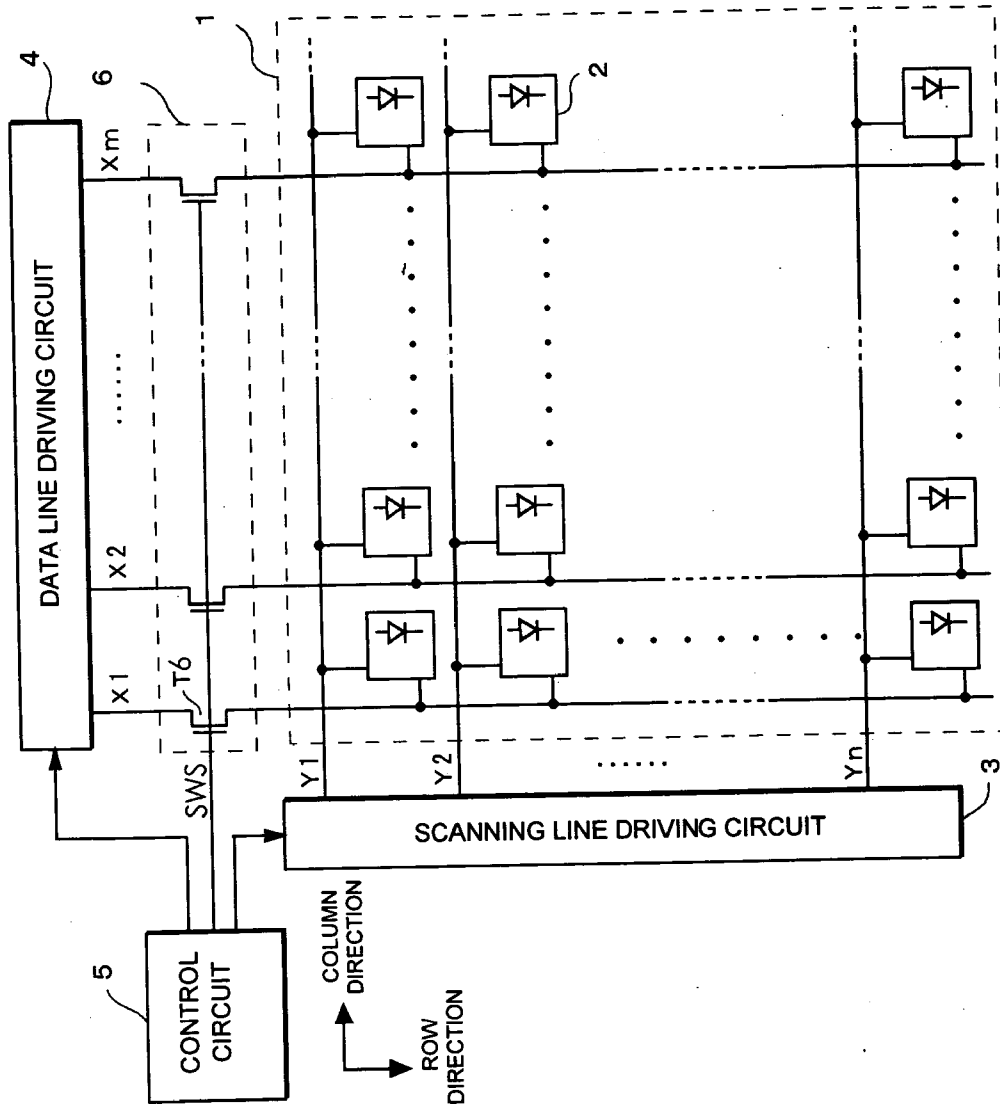


FIG. 1

FIG.2

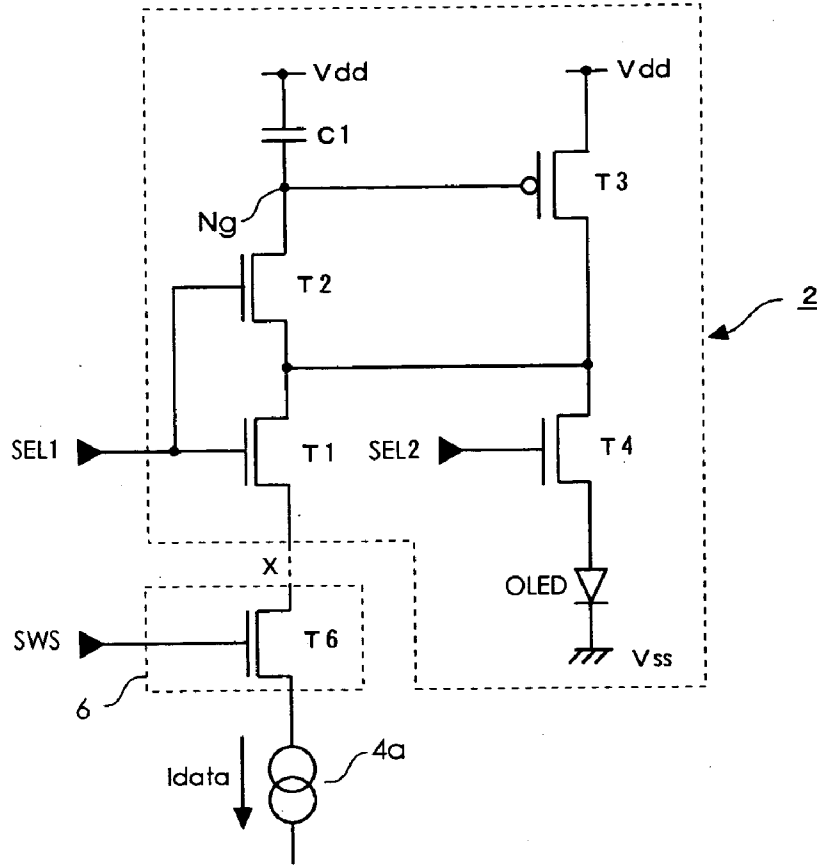
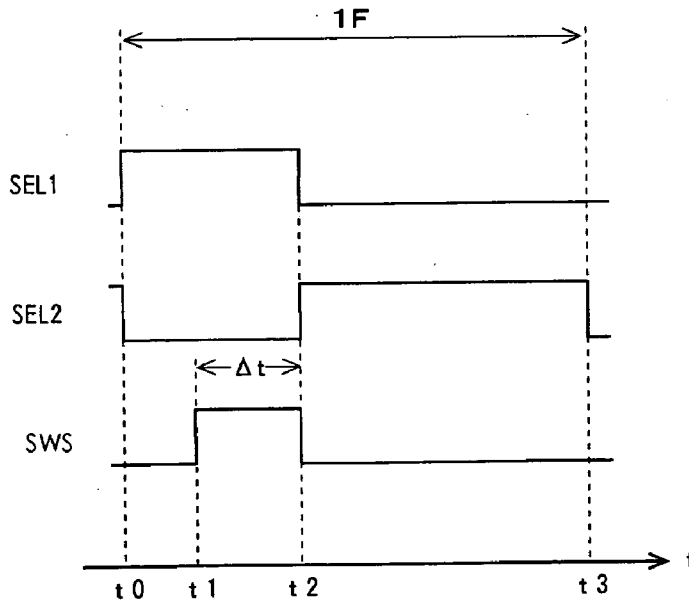


FIG.3



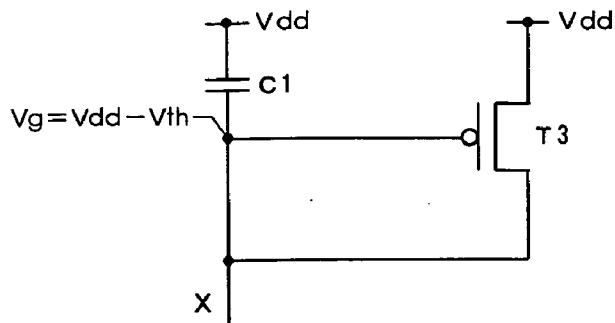


FIG. 4A

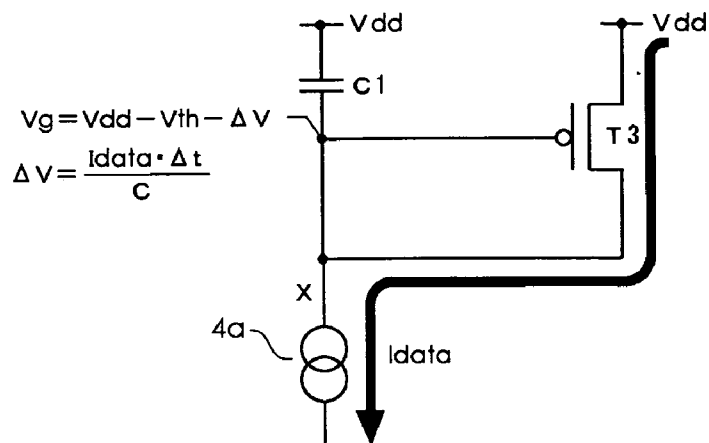


FIG. 4B

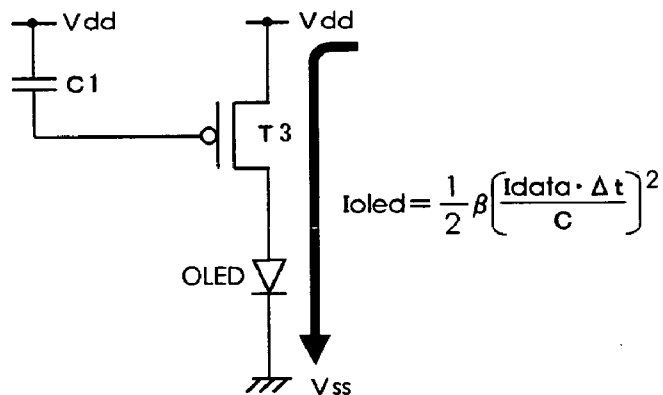
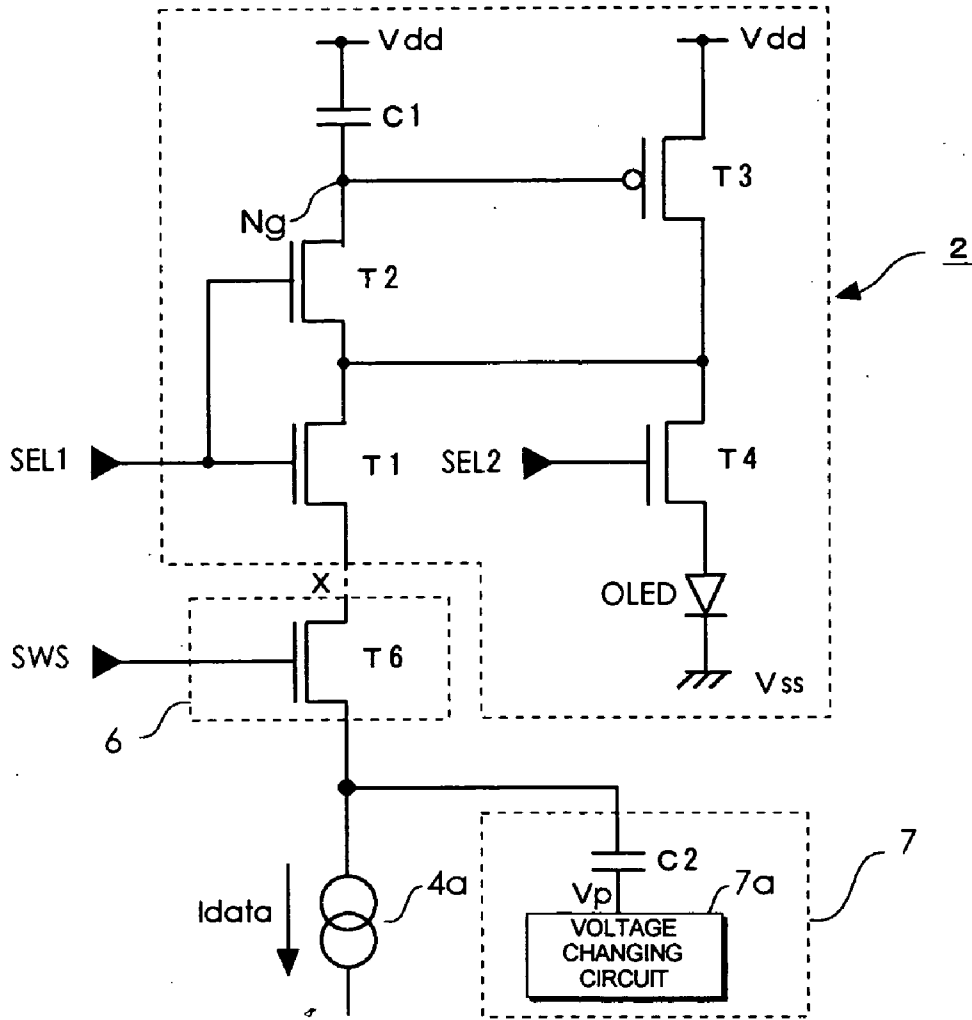


FIG. 4C

FIG.5



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