



[54] ELECTROLUMINESCENT DISPLAY DRIVER DEVICE

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[52] U.S. Cl. .... 315/169.3; 315/169.1; 345/204; 345/209; 345/76; 345/79

[58] Field of Search ..... 315/169.1, 169.3; 345/76, 95, 210, 211, 79, 204, 209, 208

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[57] ABSTRACT

A scan driver IC for an EL element in an EL display device supplies, in a positive field, a positive polarity scan voltage and an offset voltage which is higher than ground to scan side driver ICs from voltage supply circuits, and the scan side driver ICs set voltage of scan electrodes to be the offset voltage in the positive field, together with outputting the positive polarity scan voltage to the scan electrodes during electroluminescence timing. Consequently, a voltage of Vr-Vm is applied to the scan side driver ICs, and so the breakdown voltage can be lowered by an amount corresponding to the offset voltage Vm. Circuits for providing such voltages, for providing alternating current drive voltages, and for reducing power consumption of the drive circuits are also disclosed.

12 Claims, 11 Drawing Sheets

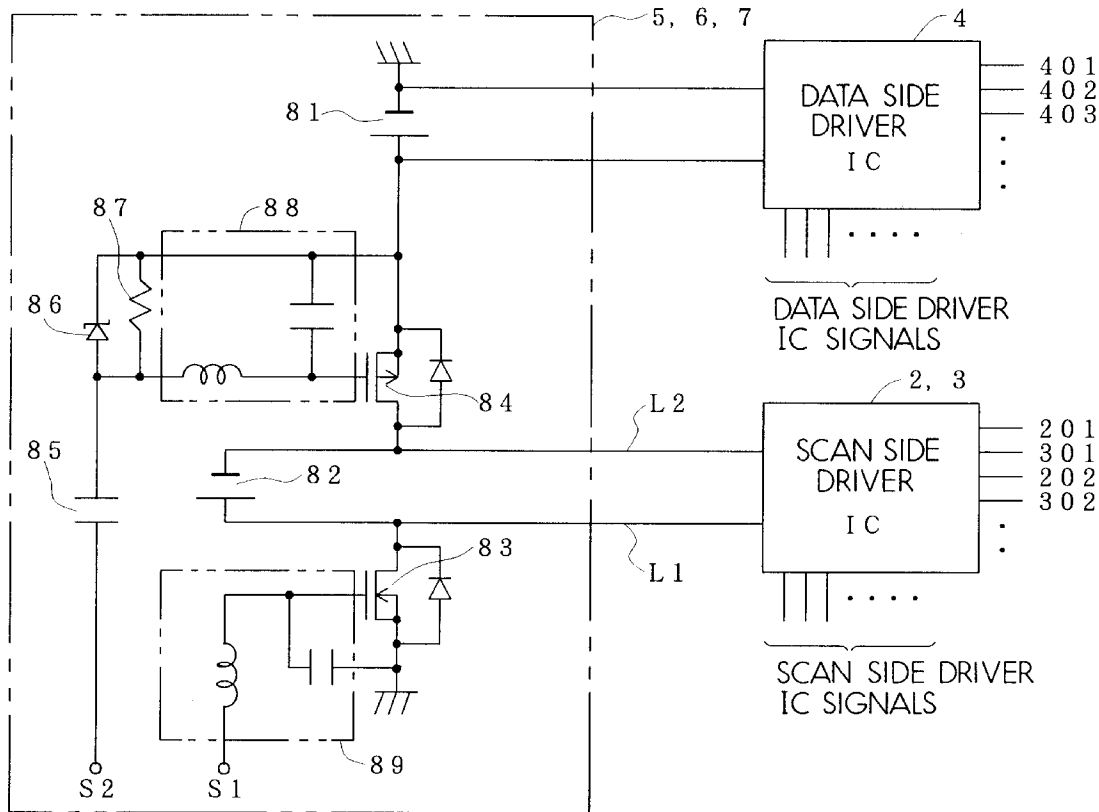


FIG. 1

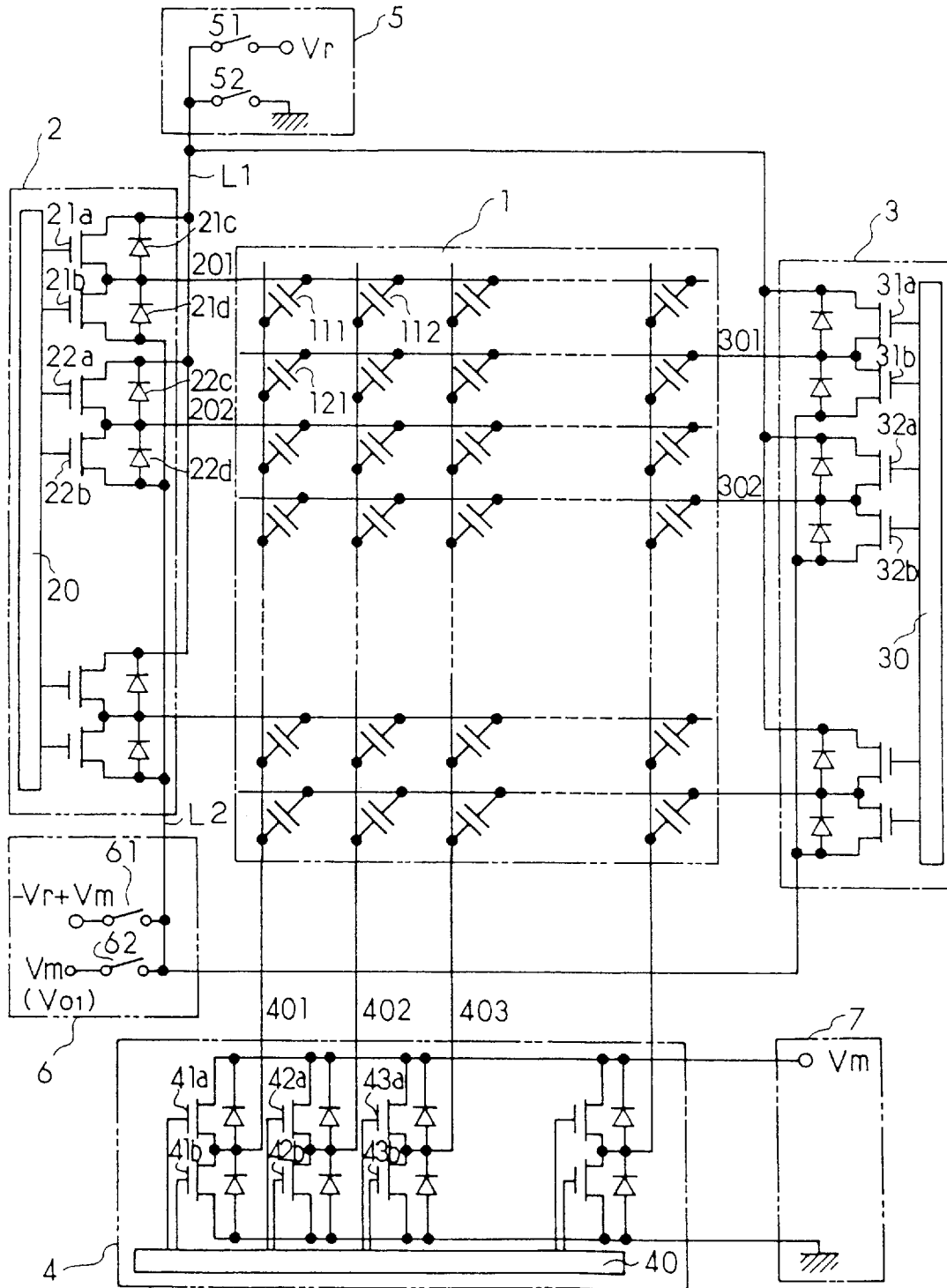


FIG. 2

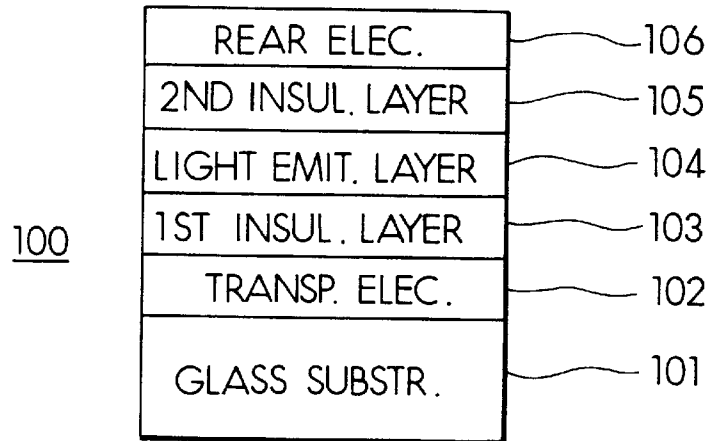


FIG. 8

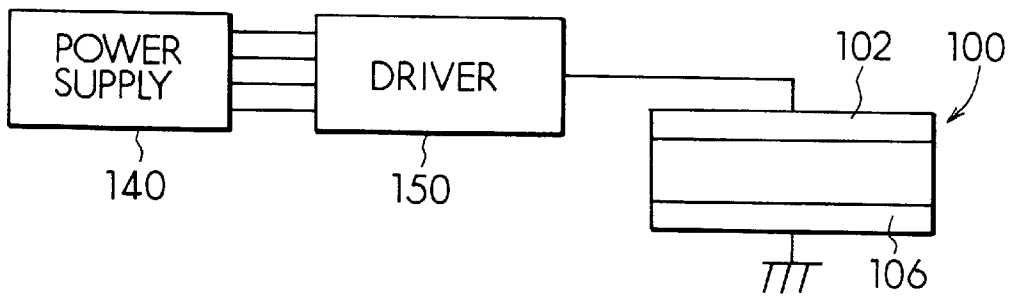
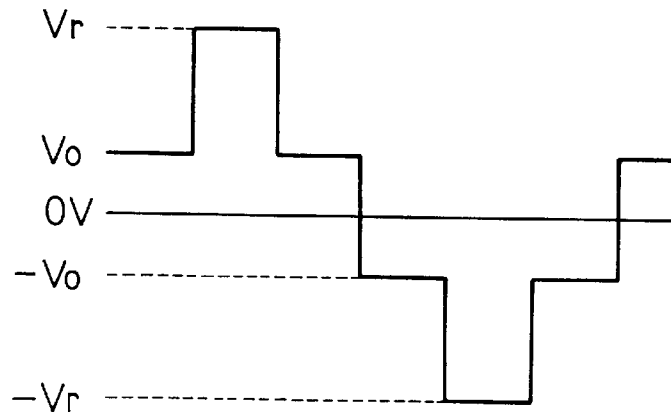


FIG. 9



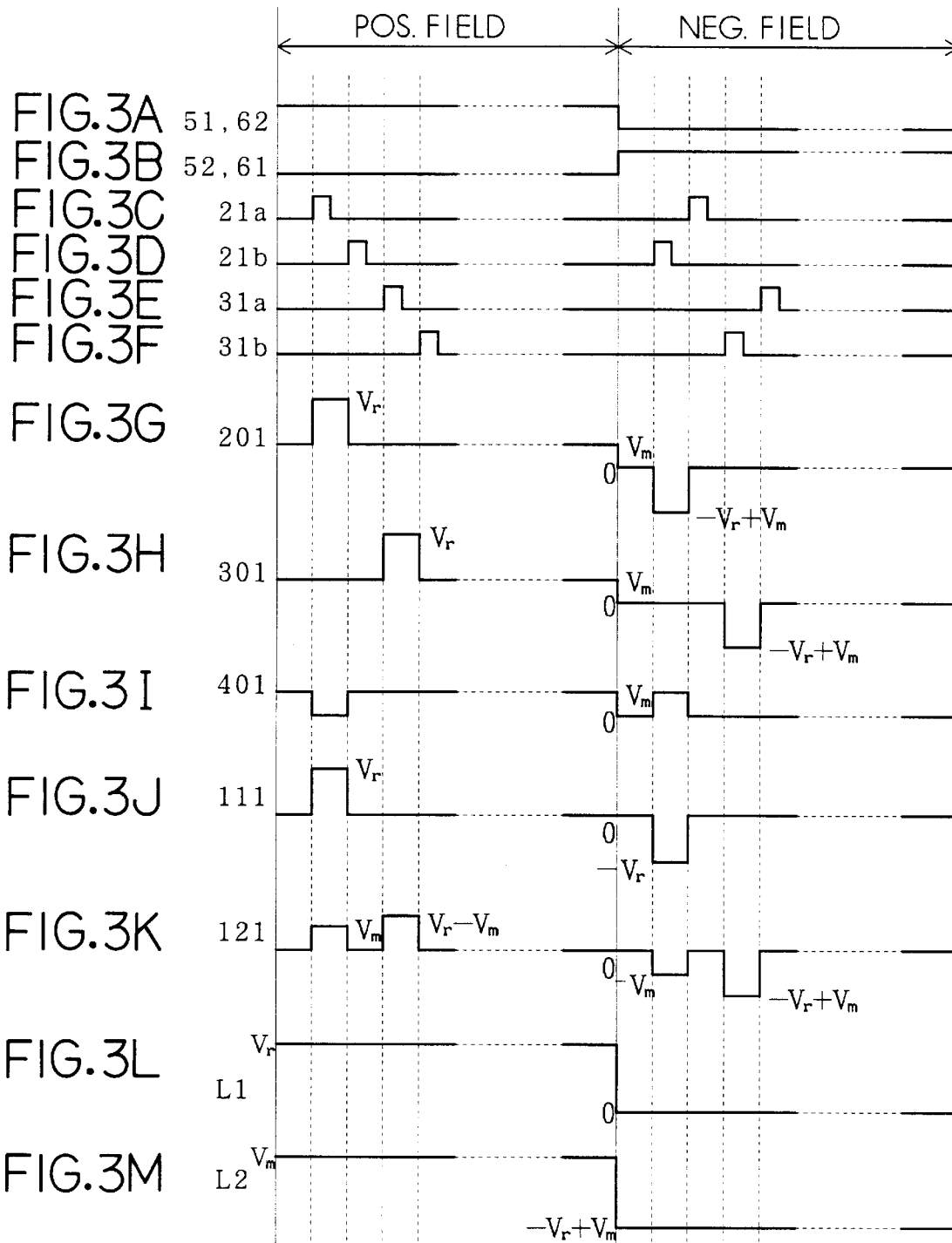
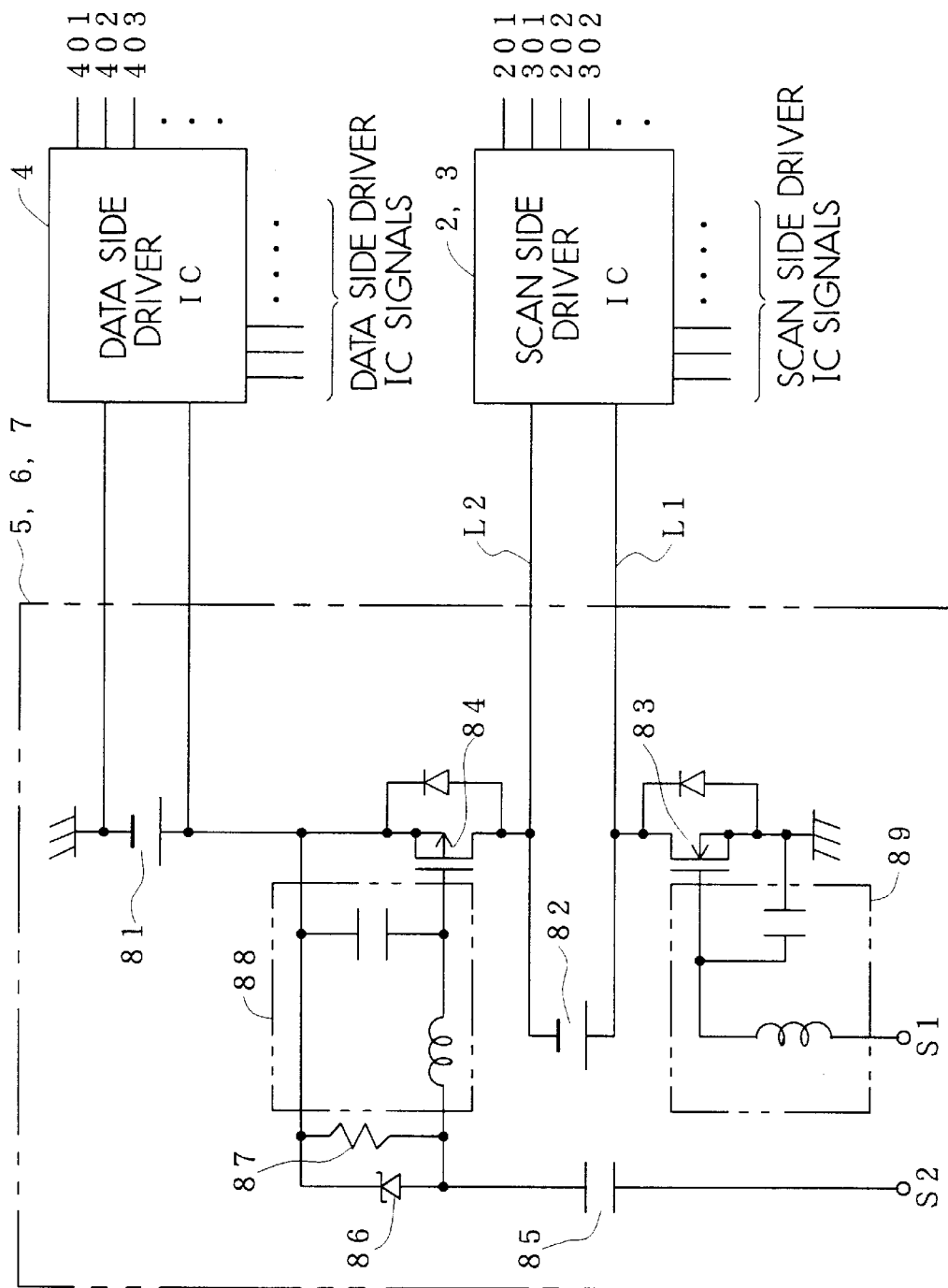


FIG. 4



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