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Abstract

AC power controller which operates at least with two reverse-connected series semiconductor regions (1, 2).

Each semiconductor region (1; 2) has an electron donor (3; source), an electron sink (4; drain) and an electrode (5; gate) which controls the flow of electrons, in conjunction with characteristic curves such as those exhibited by FETs. The semiconductor region also has internal body diodes, dictated by the technology. It is provided that the gate-source voltage (6; 7) at the respective semiconductor region (1; 2) in the forward direction is set to be large enough for a desired limiting of the drain-source current to be established. The gate-source voltage (7; 6) at the semiconductor region in the inverse mode (2; 1) is set to be large enough for the body diode (8) to remain de-energized.

FIG 1