

Title (en)

CONTROLLABLE SEMICONDUCTOR COMPONENT

Title (de)

STEUERBARES HALBLEITERBAUELEMENT

Title (fr)

COMPOSANT A SEMI-CONDUCTEUR POUVANT ETRE COMMANDE

Publication

EP 0782769 A1 19970709 (DE)

Application

EP 95934099 A 19950922

Priority

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- EP 9503742 W 19950922

Abstract (en)

[origin: DE4433796A1] The invention concerns a semiconductor component which can be controlled on the anode side and whose semiconductor body comprises a plurality of adjacent, parallel-connected unit cells having a thyristor structure. A lightly doped n-base region (3) is adjoined on both sides by highly doped p-regions constituting p-base region (2) and p-emitter region (4). The p-base region (2) is followed by a highly doped n-emitter region (1) which contacts a cathode electrode (7). Integrated in the p-emitter region (4) is a first n-channel MOSFET (M1) which is connected in series with the thyristor structure by means of a floating electrode (FE). The drain electrode (5b) of the first MOSFET (M1) is provided with an outer anode (8) which has no contact with the p-emitter region (4). A second n-channel MOSFET (M2) is integrated between the n-base region (3) and the drain region (5b) of the first MOSFET (M1).

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