

Title (en)

HIGH-DENSITY INTEGRATED SEMICONDUCTOR DEVICE COMPRISING A DIODE-RESISTOR STRUCTURE

Publication

EP 0000472 B1 19810211 (DE)

Application

EP 78100195 A 19780619

Priority

DE 2733615 A 19770726

Abstract (en)

[origin: EP0000472A1] The highly integrated semiconductor device is intended as a separating diode cooperating with selector lines of an integrated memory. The resistor (R) is of pinch-type whose pinch doping region (5) is greater than the cross sectional dimension of the resistor doping region (4). Simultaneously it forms a cathode connection doping region for the Schottky diode (D). Preferably the pinched doping region carries a connection contact (K) for the Schottky diode cathode terminal. This doped region is of identical conductivity as the surrounding semiconductor material (3), but of higher doping rate, sufficient to form an ohmic contact with a metal electrode on the region. On the resistance region (4) outside the pinch doping region is provided a metal contact (A), extending beyond the resistance region.

IPC 1-7

H01L 27/06; **G11C 11/40**

IPC 8 full level

G11C 11/41 (2006.01); **G11C 11/40** (2006.01); **G11C 11/414** (2006.01); **G11C 11/416** (2006.01); **H01L 21/822** (2006.01); **H01L 21/8222** (2006.01); **H01L 27/04** (2006.01); **H01L 27/06** (2006.01); **H01L 27/07** (2006.01); **H01L 29/47** (2006.01); **H01L 29/872** (2006.01)

CPC (source: EP US)

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