

Title (en)

FIELD-EFFECT-CONTROLLED SEMICONDUCTOR COMPONENT.

Title (de)

FELDEFFEKTGESTEUERTES HALBLEITERBAUELEMENT.

Title (fr)

COMPOSANT A SEMICONDUCTEUR A COMMANDE PAR EFFET DE CHAMP.

Publication

**EP 0657066 A1 19950614 (DE)**

Application

**EP 93919100 A 19930819**

Priority

- DE 4228832 A 19920829
- EP 9302216 W 19930819

Abstract (en)

[origin: DE4228832A1] The invention concerns a field-effect-controlled semiconductor component with at least four zones of alternating opposite conduction types, an emitter region at the anode end, a first and a second base region adjacent to the emitter region, an emitter region at the cathode end and an additional adjacent emitter region, plus an anode contact, a contact with the emitter region at the cathode end and a MOS field-effect transistor control-electrode contact. The cathode-end emitter region and the adjacent emitter region form the source and drain of a MOS field-effect transistor. The part (34, 36) of the cathode-end base region which is adjacent to the emitter region (44) of a main thyristor, or a separate highly p-doped region (38) adjacent to the cathode-end base region, is connected to the cathode contact (72) by an integrated component (D) with a non-linear current/voltage characteristic.

IPC 1-7

**H01L 29/74**

IPC 8 full level

**H01L 29/10** (2006.01); **H01L 29/74** (2006.01); **H01L 29/745** (2006.01); **H01L 29/749** (2006.01)

CPC (source: EP US)

**H01L 29/102** (2013.01 - EP US); **H01L 29/7412** (2013.01 - EP US); **H01L 29/7428** (2013.01 - EP US); **H01L 29/7455** (2013.01 - EP US)

Citation (search report)

See references of WO 9406158A1

Designated contracting state (EPC)

DE FR GB IE NL SE

DOCDB simple family (publication)

**DE 4228832 A1 19940310**; **DE 4228832 C2 19941124**; EP 0657066 A1 19950614; JP H08502858 A 19960326; US 5587595 A 19961224; WO 9406158 A1 19940317

DOCDB simple family (application)

**DE 4228832 A 19920829**; EP 9302216 W 19930819; EP 93919100 A 19930819; JP 50680294 A 19930819; US 38777895 A 19950221