

Title (en)

Field-emission type switching device and method of manufacturing it.

Title (de)

Unter Feldeffekt-Emission arbeitende Schaltanordnung und deren Herstellungsverfahren.

Title (fr)

Dispositif de commutation utilisant l'émission par effet de champ et son procédé de fabrication.

Publication

EP 0406886 A2 19910109 (EN)

Application

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Priority

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Abstract (en)

A field-emission type switching device includes a substrate (1, 2; 11) formed with a recess (6; 15) having a straight edge and serrated edge opposite to the straight edge. A gate electrode (5; 14) is formed at the bottom of the recess (6; 15). An emitter electrode (3, 12) is provided over the substrate (1, 2; 11) and formed with a serrated edge which is slightly off alignment with the serrate edge of the recess (6; 15) so as to provide an emitter overhanging portion (3a) overhanging the recess (6;15). Similarly, a collector electrode (4, 13) is provided over the substrate means (1, 2; 11) and formed with a straight edge which is slightly off alignment with the straight edge of the recess (6; 15) so as to provide a collector overhanging portion (4a) overhanging the recess (6; 15).

IPC 1-7

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CPC (source: EP)

H01J 3/022 (2013.01); **H01J 21/105** (2013.01)

Cited by

EP0665571A1; US5214346A; EP0443865A1; US5192240A; EP0444670A3; US5148079A; EP0535953A3; US5382867A; EP0498254A1; US5289077A; US5473219A; US5449983A; EP0513777A3; US5386172A; FR2657999A1; US5245247A; GB2242064B; US6727642B1; GB2259184A; GB2259184B; DE4132150A1; FR2667444A1; GB2260021A; GB2260021B; DE4132150C2; US5267884A; WO9949492A1; WO0108193A1; WO0108192A1

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