

Title (en)

BIPOLAR TRANSISTOR FOR USE IN LINEAR AMPLIFIERS

Title (de)

BIPOLARTRANSISTOR ZUR BENUTZUNG IN LINEAREN VERSTÄRKERN

Title (fr)

TRANSISTOR BIPOLAIRE POUR AMPLIFICATEURS LINEAIRES

Publication

EP 0783767 A1 19970716 (EN)

Application

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Priority

- US 9506479 W 19950522
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Abstract (en)

[origin: WO9610844A1] A bipolar transistor for use in Class A and Class AB linear amplifiers with reduced third order and higher harmonic frequency distortion of an input signal includes a semiconductor substrate (10) of a first conductivity type and a first dopant concentration, an epitaxial layer (11) of the first conductivity type formed on the semiconductor substrate, the epitaxial layer having a second dopant concentration less than the first dopant concentration. A base region (24) of a second conductivity type is formed in the epitaxial layer abutting a major surface with the base region having a depth, t . At least one emitter region (25) of the first conductivity type is formed in the base region and abuts the surface, the emitter region having a width, W , with a ratio of the emitter width, W , to base depth, t , being in the range of 3 to 4.

IPC 1-7

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IPC 8 full level

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