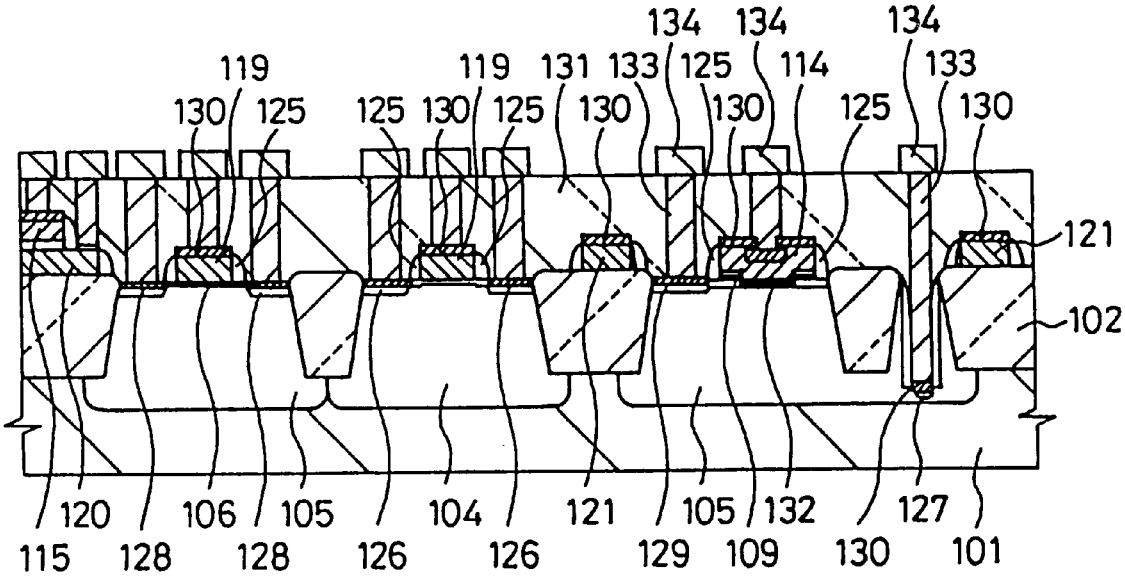
Fig. 1



1 0 1 SILICON SUBSTRATE

1 0 5 FIRST N-TYPE WELL REGION

1 0 9 P-TYPE BASE REGION

1 1 4 EMITTER ELECTRODE

1 1 5 UPPER ELECTRODE

1 2 0 LOWER ELECTRODE

1 2 1 RING-SHAPED STRUCTURE

1 3 0 SILICIDE LAYER