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(56) Documents Cited:
JP 560103508 A JP 050022048 A
JP 2004260395 A

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UK CL (Edition W) H3W
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(54) Abstract Title: A discrete transistor boost amplifier for an audio driver IC, wherein the boost amplifier is automatically activated at high output levels

(57) A linear audio power amplifier comprises a primary power amplifier (A1) implemented by at least one monolithic integrated circuit and a secondary amplifier formed from discrete components (Q1, Q2, R1, L1, L2) and connected between the output (14) of the primary amplifier and a first amplifier output node (18). The secondary amplifier boosts the output from the primary when the output current from the primary reaches a predetermined threshold value. The secondary amplifier includes inductances (L1, L2) for extending a switching off period of the secondary amplifier to smooth any switching discontinuity. The secondary amplifier may comprise at least a first amplifier stage including first and second complementary transistors (Q1, Q2) and first and second inductances (L1, L2), and a resistance (R1) for setting the threshold value for switching the first and second transistors. A feedback loop (17) connects the first output node to a feedback input of the primary and a plurality of secondary amplifier stages may be cascaded within the feedback loop.

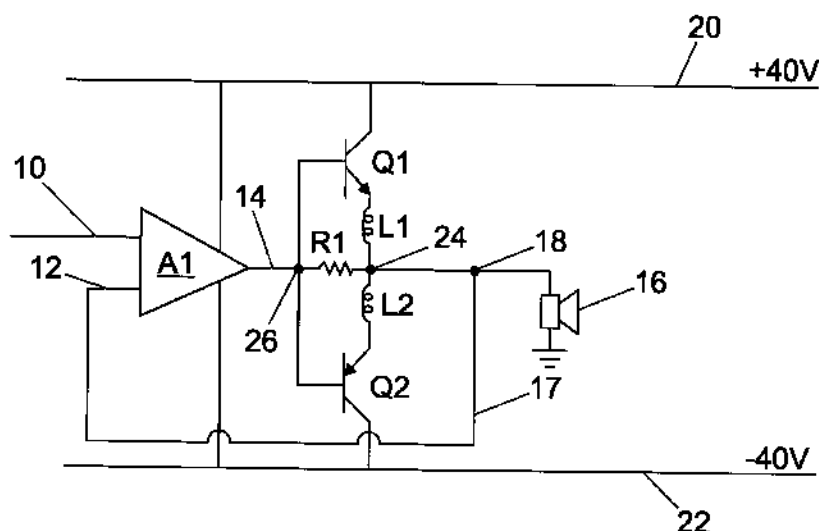


Fig. 1