

Publication

EP 0135907 A3 19850605

Application

EP 84111125 A 19840918

Priority

DE 3335158 A 19830928

Abstract (en)

[origin: EP0135907A2] 1. A circuit arrangement for supplying a piezoelectric vibrator in an ultrasonic therapy device, comprising a d.c. voltage source having a first and second terminal, an oscillator which generates the supply a.c. voltage whose frequency is approximately equal to the resonance frequency of the vibrator and exceeds 500 kHz, characterised in that the oscillator is a single-phase oscillator comprising a power field-effect transistor (10) which has a gate electrode (G), a drain electrode (D), and a source electrode (S) ; that the drain electrode (D) is connected via the vibrator (1) to the first terminal (P) of the d.c. voltage source, and the source electrode (S) is connected via the primary winding (22) of a feed-back transformer (20) to the second terminal (N) of the d.c. voltage source ; that the gate electrode (G) is connected via a series resistor (11) to a potential divider (5, 7) which lies between the terminals of the d.c. voltage source ; and that the resistor (7) of the potential divider, which is connected to the second terminal (N) of the d.c. voltage source, is connected in parallel to a series resonant circuit which comprises a capacitor (23, 24) and the secondary winding (21) of the feedback transformer (20) whose resonance frequency is approximately equal to the resonance frequency of the vibrator (1).

IPC 1-7

B06B 1/02; **G10K 15/04**

IPC 8 full level

B06B 1/02 (2006.01); **G10K 15/04** (2006.01)

CPC (source: EP)

B06B 1/0253 (2013.01); **B06B 2201/55** (2013.01); **B06B 2201/76** (2013.01)

Citation (search report)

- [A] US 4012647 A 19770315 - BALAMUTH LEWIS, et al
- [A] US 3584244 A 19710608 - VEST GARY W
- [A] US 4311922 A 19820119 - PUCKETTE CHARLES M

Cited by

US5001649A; EP2446847A4

Designated contracting state (EPC)

AT CH DE LI NL

DOCDB simple family (publication)

EP 0135907 A2 19850403; **EP 0135907 A3 19850605**; **EP 0135907 B1 19871209**; AT E31257 T1 19871215; DE 3335158 A1 19850404; DE 3467981 D1 19880121

DOCDB simple family (application)

EP 84111125 A 19840918; AT 84111125 T 19840918; DE 3335158 A 19830928; DE 3467981 T 19840918