

Title (en)
VOLTAGE REGULATOR DEVICE, IN PARTICULAR FOR PORTABLE TELEVISION RECEIVER

Publication
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Application
EP 79400761 A 19791017

Priority
FR 7833803 A 19781130

Abstract (en)
[origin: EP0012634A1] 1. DC voltage regulator device of the type comprising a regulating member (100) comprising a first transistor (11) mounted in common collector and series-connected between a first input terminal (1) and a first output terminal (3) of the same polarity and the impedance of which is controlled by means of a comparator amplifier including a third transistor (13) the emitter of which is connected through a resistor (14) to the second terminals (2, 4) of the member (100) and biased by a zener diode (15) connecting it to the first output terminal (3), at a constant reference voltage, and the base of which receives a fraction of the output voltage (V34) of the device (10), to supply a collector current (IC13) dependent on the difference of the reference voltage and the said fraction, and which feeds the input of this regulating member (100) so that the voltage drop (VCE11) between the first terminals (1, 3) will vary in a manner to compensate for the input voltage (V12) variations, the regulating member (100) further comprising a second transistor (12) of a type complementary to the first (11), the emitter of which is connected to the collector thereof and the collector thereof being connected to the base of the first (11), and its base being connected to the collector of the third transistor (13), a first resistor (101) connecting the collector with the base of the first transistor (11) and allowing the conductive state thereof to be assured at the beginning of operation and to limit its maximum emitter current in case of short circuit, characterized by the fact that a second resistor (102) connects the collector of the first transistor (11) to the emitter of the second (12) to limit the collector current (IC12) thereof which feeds the base (IB11) of the first transistor (11), so that the power dissipation of the first transistor (11) equal to the product of its overload collector-emitter-voltage and its collector current limited by its base current, will not exceed a predetermined value.

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