

ABSTRACT

A television receiver has a switched mode power supply for regulating an output voltage, including a power transformer (LP36) having a primary winding (W1) coupled to an unregulated voltage (VIN) via a power transistor. The power transistor is controlled by pulses (V_{con}) from the output of a controller (20). In order to sweep the base-emitter charge from the power transistor in order to end collector-emitter conduction, the base of the power transistor is coupled to the output of the pulse generating controller via a capacitor (CP24) in parallel with at least one diode (DP24, 26, 27). During a pulse from the controller, the capacitor is charged to a voltage equal to the forward biased drop across the diode(s). At the end of a pulse at the output of the controller, the voltage across the capacitor provides a negative voltage at the base of the transistor, thus sweeping out the base-emitter charge and sharply turning the transistor off. In order to assure this function of the capacitor even upon plug-in startup, the capacitor is precharged via a resistor (RP324) coupled between the output of the controller (pin 14) and the unregulated voltage input (VIN).

(Reference Indicia are from Fig. 1)

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