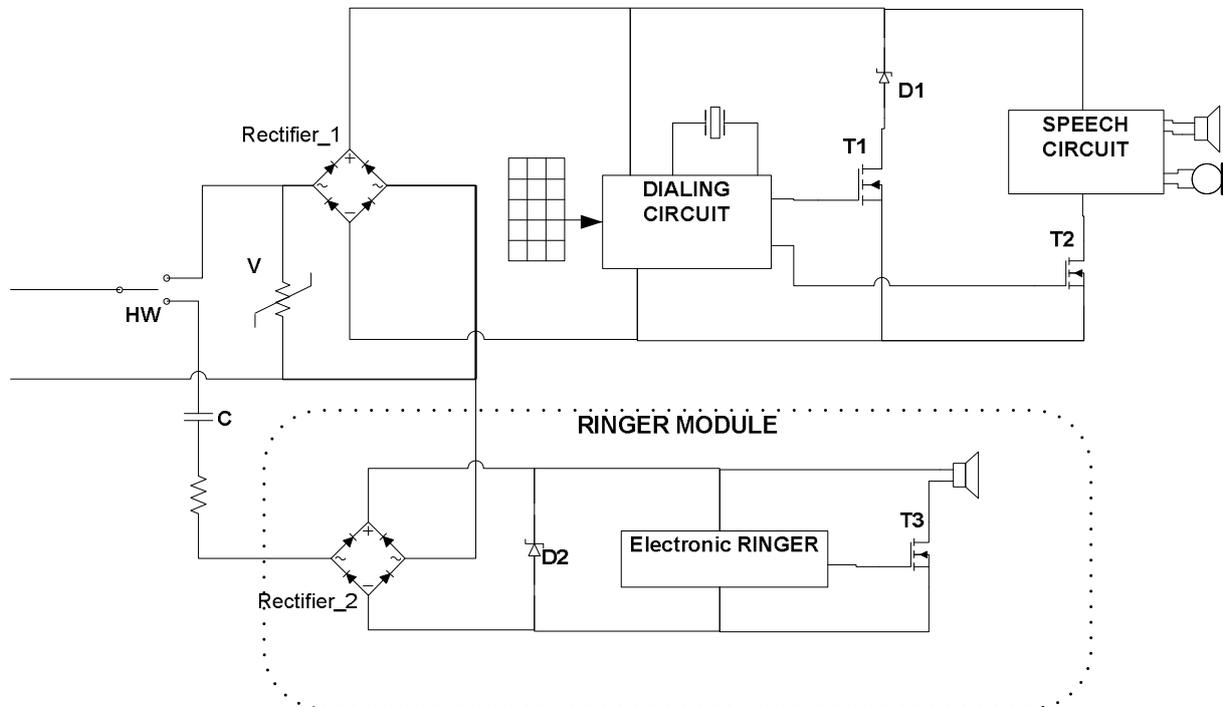


Electronic telephone devices

Electronic telephone device with pulse dialing



CF – Hook Switch

C – separates the ringer circuit from the line's DC voltage

Rectifier bridges – have the following roles:

- Rectifier bridge_1: protects the circuits of the phone from the polarity changes on the line due to possible inverse connection of the wires. Due to the low level of the voice signal relatively to the DC component, this signal will not be rectified, but the diodes will distort nonlinearly the voice signal.
- Rectifier bridge_2: rectifies the AC ringing signal providing DC supply voltage to the ringer when a call is received.

D2 – limits the voltage of the ringing signal.

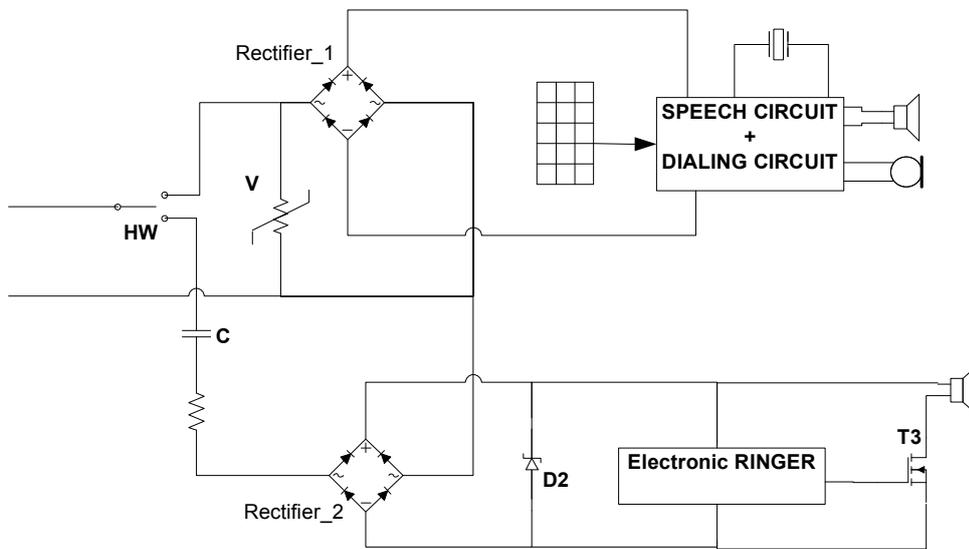
V – protection device/component against the overvoltage on the line.

D1 – ensures a voltage large enough for supplying the dialing circuit when transistor T1 is

ON.

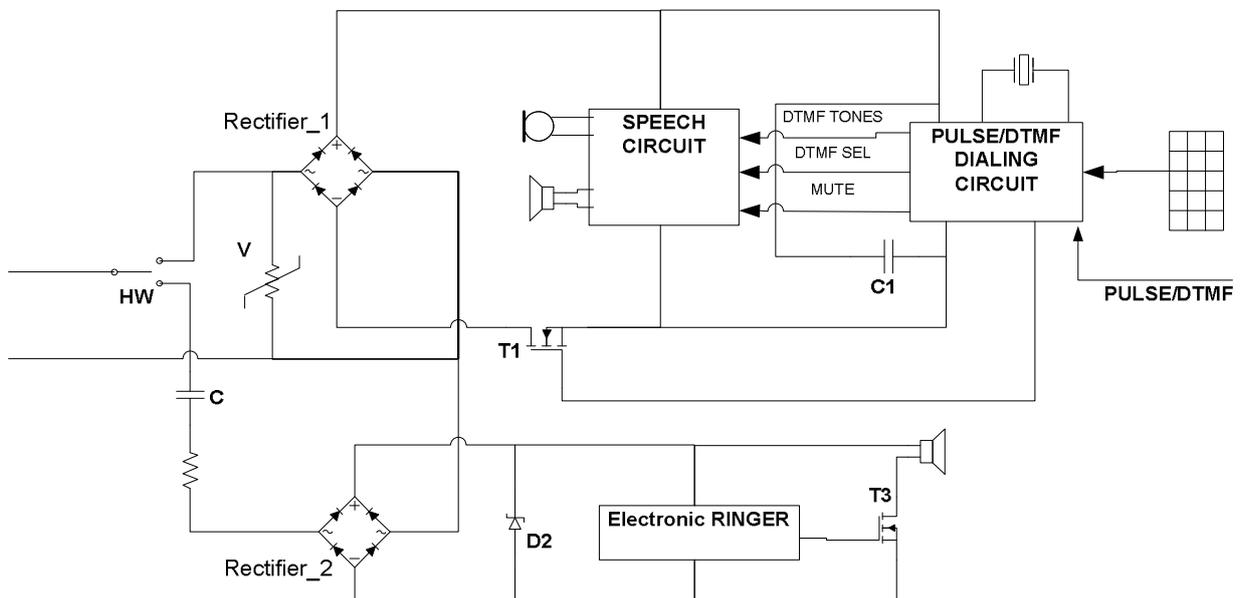
The dialing circuit decouples the speech circuit during the dialing period by blocking transistor T2 and generates the dialing pulses by interrupting the line with the help of transistor T1.

Electronic telephone device with DTMF signaling



Because the DTMF signaling is performed in the telephone band, the DTMF tone generation was included in the speech circuit.

Electronic telephone device with pulse and DTMF dialing



PULSE/DTMF selects one of the two dialing techniques which will be used to transmit the number of the called subscriber to the local exchange. When the PULSE dialing is used the MUTE signal deactivates the speech circuit, and T1 interrupts the loop in order to generate the dialing pulses. When the DTMF method is used, the dialing circuit generates the DTMF tones and sends them to the speech circuit for transmission on the line.

C1 provides the supply voltage for the dialing circuit during the interruptions of the loop;