

EZ 41 Full-wave rectifier

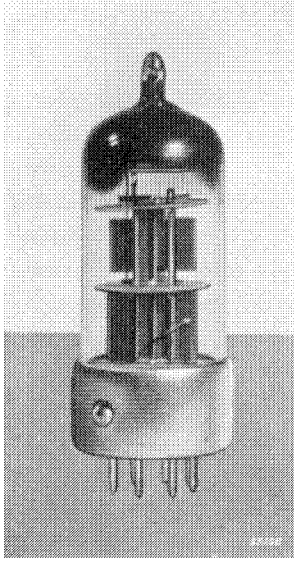


Fig. 1
The rectifier EZ 41 (about
actual size).

The EZ 41 is an indirectly heated, high-vacuum, full-wave rectifier which is specially designed for car radio and other receivers operating in conjunction with a single vibrator. The EZ 41 is used to rectify the alternating voltage supplied by the vibrator. In view of the fact that receivers of the type mentioned are usually designed for low current consumption, the EZ 41 is capable of rectifying current only up to 60 mA; the heater current of the valve is consequently relatively low, viz: 0.4 A. The maximum permissible alternating voltage to be rectified by the EZ 41 is $2 \times 250 \text{ V}_{RMS}$. Since the heater voltage of the EZ 41 used in receivers mentioned previously is generally obtained from the same source as that for the heaters of the other valves in the set (an accumulator), the heater and cathode must be well insulated from each other. Thus a maximum voltage of 350 V is permissible between these electrodes.

In order to avoid sputtering (momentary flash-over between anode and cathode), a resistor must be included in each of the anode leads of the EZ 41; appropriate values for these resistors are given in the following data. For further particulars concerning this essential resistance, reference can be made to the description of the rectifier EZ 40.

TECHNICAL DATA OF THE FULL-WAVE RECTIFIER EZ 41

Heater data

Heating: indirect, A.C. or D.C., parallel feed

Heater voltage	V_f	=	6.3 V
Heater current	I_f	=	0.4 A

Limiting values

Transformer voltage	V_{tr}	= max.	$2 \times 250 \text{ V}_{RMS}$
Direct-current output	I_o	= max.	60 mA
Peak voltage between heater and cathode	V_{fk}	= max.	350 V
First capacitor of the smoothing filter	C_{filt}	= max.	8 32 μF
Anode series resistance	R_i	= min.	$2 \times 150 \quad 2 \times 300 \quad \Omega$

EZ 41

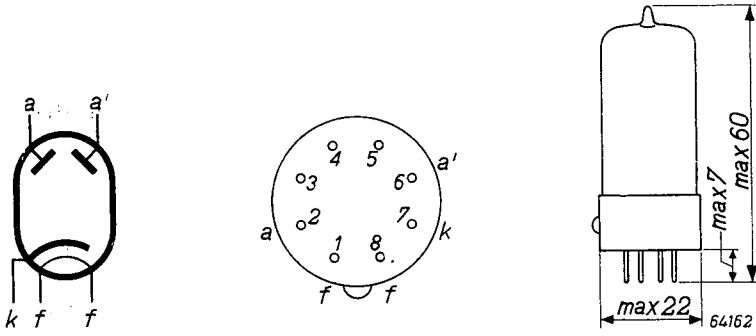


Fig. 2
Electrode arrangement, electrode connections and dimensions in mm of the EZ 41.

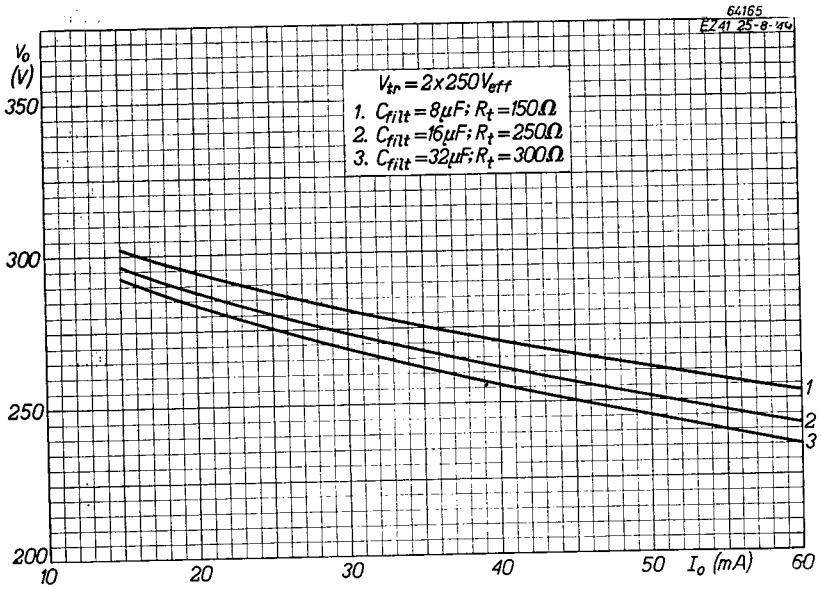


Fig. 3
Load characteristics of the EZ 41; direct-voltage output (V_o) as a function of the direct-current output (I_o) for various values of the anode series resistance.