# AZ 4 Rectifying valve

The AZ 4 is a directly-heated full-wave rectifying valve for receivers consuming a heavy current.

## FILAMENT RATINGS

Heating: direct, A.C.

| | | |
|---|---|---|
| Filament voltage | $V_f$ | = 4.0 V |
| Filament current | $I_f$ | = 2.3 A |

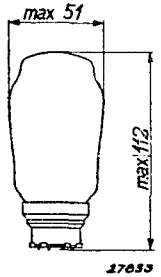


Fig. 1
Dimensions in mm.

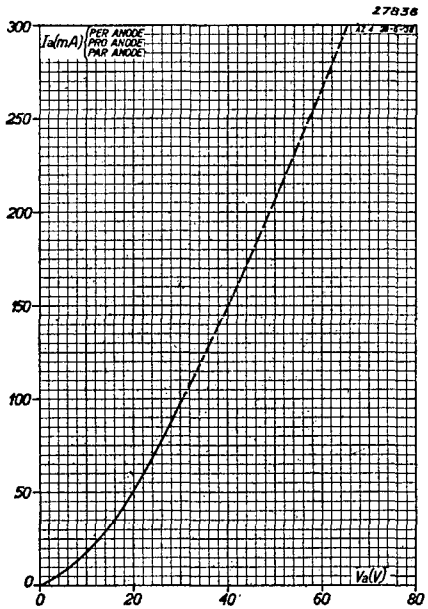


Fig. 3
Current per anode, as a function of the applied direct voltage.

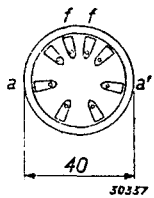


Fig. 2
Arrangement of base connections and electrodes.

## MAXIMUM RATINGS

| | | |
|---|---|---|
| Voltage, on no load, across the secondary winding of the power transformer | $V_{tr}$ | = max. 2 × 500 $V_{eff}$ |
| D.C. output with $V_{tr}$ = 2 × 500 $V_{eff}$ | $I_o$ | = max. 120 mA |
| D.C. output with $V_{tr}$ = 2 × 400 $V_{eff}$ | $I_o$ | = max. 150 mA |
| D.C. output with $V_{tr}$ = 2 × 300 $V_{eff}$ | $I_o$ | = max. 200 mA |
| Capacitance of the first smoothing capacitor | $C$ | = max. 60 $\mu$F |

For medium-power amplifier equipment two AZ 4 valves each working as a half-wave rectifying valve (anodes connected in parallel) may be used in a full-wave rectifier circuit.

If the valve is to be mounted horizontally it should be located so that the filament lies in the vertical plane.

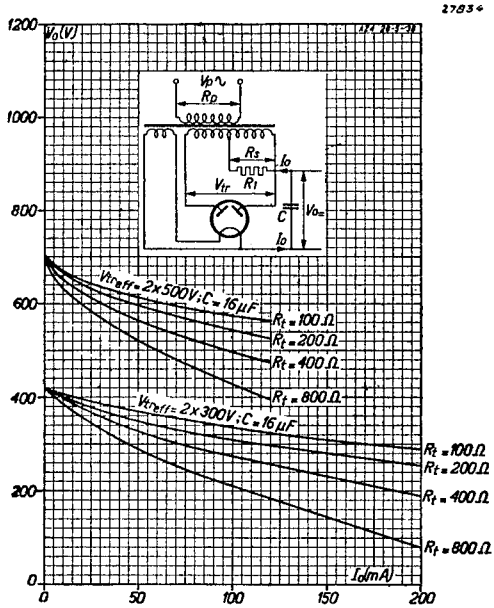


Fig. 4
Loading characteristics for transformer voltages, on no load, of Vtr = 2 × 300 V and 2 × 500 V and with respect to different values of the internal resistance of the transformer ($Rt = Rs + n^2 Rp + R_i$).

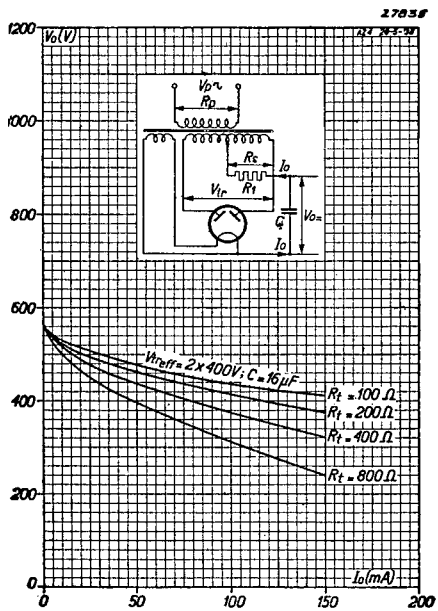


Fig. 5
Loading characteristics relating to Vtr = 2 × 400 V, for different values of the internal resistance of the transformer ($Rt = Rs + n^2 Rp + R_i$).