

UY 1 (N) Half-wave rectifier valve

The UY 1 (N) is an indirectly heated half-wave rectifier for use in AC/DC receivers with 100 mA series heater circuit. The internal resistance of this valve is very low and voltage losses are therefore only slight, this being a very great advantage when the receiver is to operate on 100 V mains. This rectifier is a new version of the UY 1 and differs from the UY 21 only in the base.

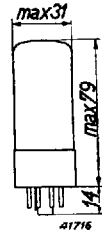


Fig. 1
Dimensions in mm

HEATER RATINGS

Heater feed: indirect by AC or DC; series supply.
 Heater voltage $V_f = 50$ V
 Heater current $I_f = 0.100$ A

MAXIMUM RATINGS

Alternating anode voltage $V_i = \text{max. } 250$ V_{eff}
 D.C. output $I_o = \text{max. } 140$ mA
 Voltage between filament and cathode . . $V_{fk} = \text{max. } 500$ V (peak)
 Capacitance across input of smoothing filter $C = \text{max. } 60$ μF¹⁾



¹⁾ A resistance of which the minimum value is given in the following table must be included in the anode circuit to safeguard the valve.

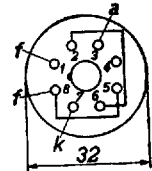


Fig. 2
Arrangement of electrodes and contacts.

Mains voltage	Capacitance of smoothing condenser	Resistance to safeguard the valve
max. 250 V	60 μF	min. 175 Ohms
max. 250 V	32 μF	min. 125 Ohms
max. 250 V	16 μF	min. 75 Ohms
max. 250 V	8 μF	min. 0 Ohms
max. 170 V	60 μF	min. 100 Ohms
max. 170 V	32 μF	min. 75 Ohms
max. 170 V	16 μF	min. 30 Ohms
max. 127 V	60 μF	0 Ohms

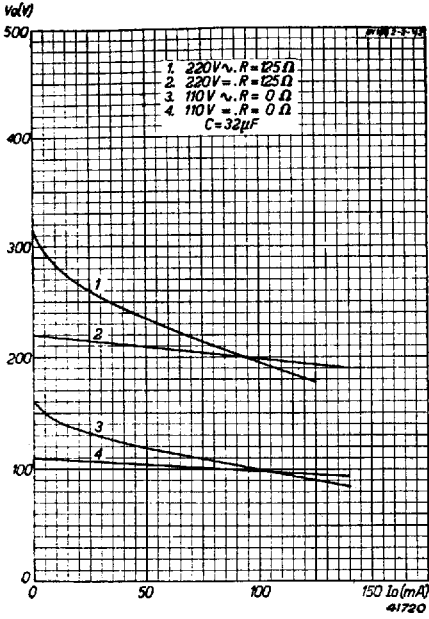


Fig. 3
Load lines for the rectifier UY 1 (N).

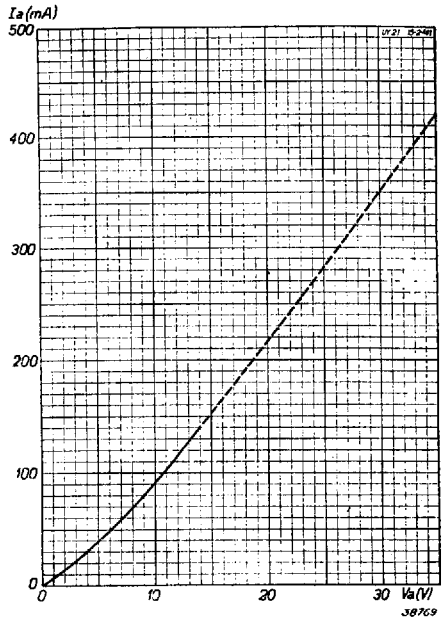


Fig. 4
Current as a function of applied direct voltage.