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.

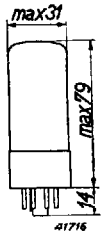

Fig. 1
Dimensions in mm

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	= max. 250 V_{eff}
D.C. output	I_0	= max. 140 mA
Voltage between filament and cathode	V_{fk}	= max. 500 V(peak)
Capacitance across input of smoothing filter	C	= max. 60 μF[1])

[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.

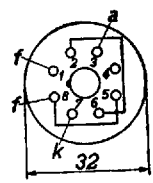

Fig. 2
Arrangement of electrodes and contacts.

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

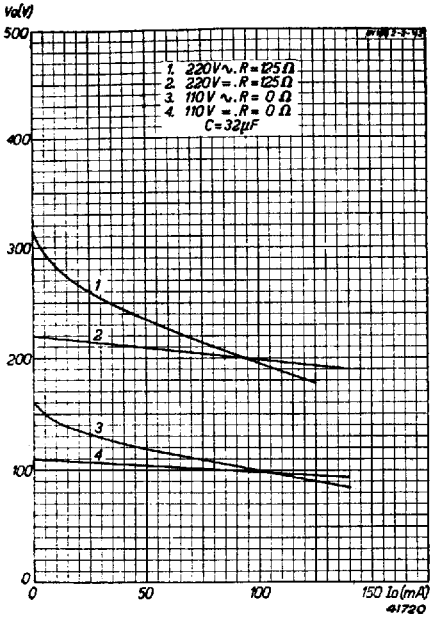

Fig. 3
Load lines for the rectifier UY 1 (N).

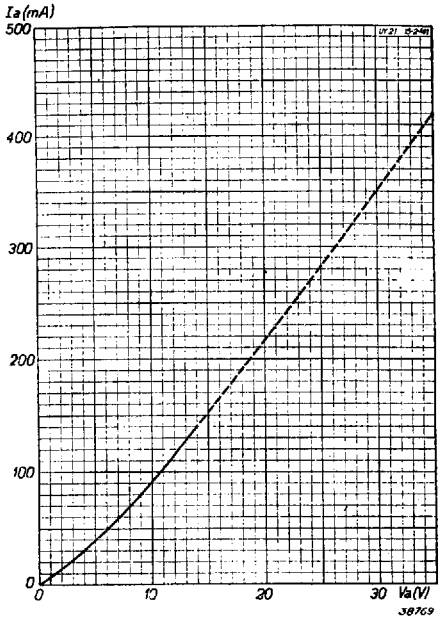

Fig. 4
Current as a function of applied direct voltage.