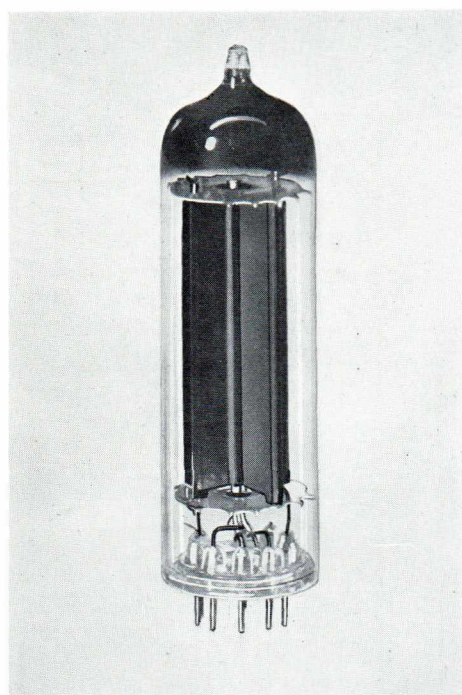


BOOSTER DIODE PY 80

DESCRIPTION

The PY 80 is an all-glass diode on Noval base, intended for the use as a booster diode. In a circuit designed to recover energy stored in the line output transformer and the deflection coils, which would otherwise be uselessly dissipated in damping resistors, the PY 80 can be employed for boosting the H.T. voltage for the line output tube, thereby considerably enhancing the efficiency of that stage.



62147

Fig. 117. The booster diode PY 80 (actual size).

In the booster application the cathode of the PY 80 is normally at a high potential with respect to the heater. The heater-cathode insulation has therefore been made adequate to withstand a potential difference of 650 V. Furthermore, the anode insulation will withstand a peak inverse voltage of 4 kV, such as may occur during the flyback.

APPLICATION

See Application Notes PL 81.

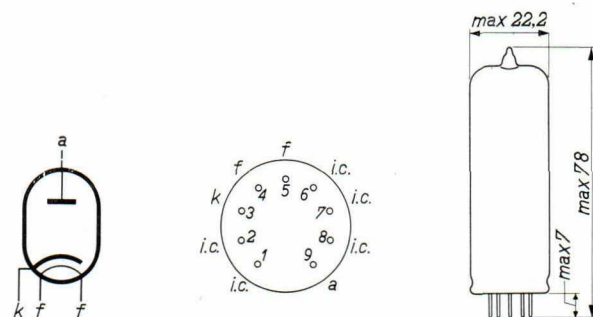
TECHNICAL DATA

HEATER DATA

Heating: indirect by A.C. or D.C.;
series supply

Heater voltage V_f 19 V
Heater current I_f 0.3 A

BASE CONNECTIONS AND DIMENSIONS (in mm)



61913

Fig. 118.

Mounting position: any

Capacitance

between anode and cathode C_a 5.5 pF

LIMITING VALUES

Peak inverse anode voltage $V_{a \text{ invp}}$ max. 4 kV¹⁾
Peak anode current I_{ap} max. 400 mA
Average anode current I_a max. 180 mA
Voltage between heater
and cathode V_{kfp} max. 650 V²⁾
Heater voltage during the
warming-up period max. 28.5 V

¹⁾ Maximum pulse duration 18% of one cycle, with a maximum of 18 μ sec.

The contacts 1—6 and 8 of the tube holder may not be used to support the wiring. When the tube holder 5908/03 is used no special precautions need be taken provided the peak inverse voltage does not exceed 3 kV. Between 3 and 4 kV, however, the cylindrical centre shield and contact 6 should be removed from the holder, this then being mounted in a plate of insulating material of about 4 cm diameter.

²⁾ Maximum 160 V_{rms} alternating voltage + maximum 450 V direct voltage. Cathode positive with respect to the heater.

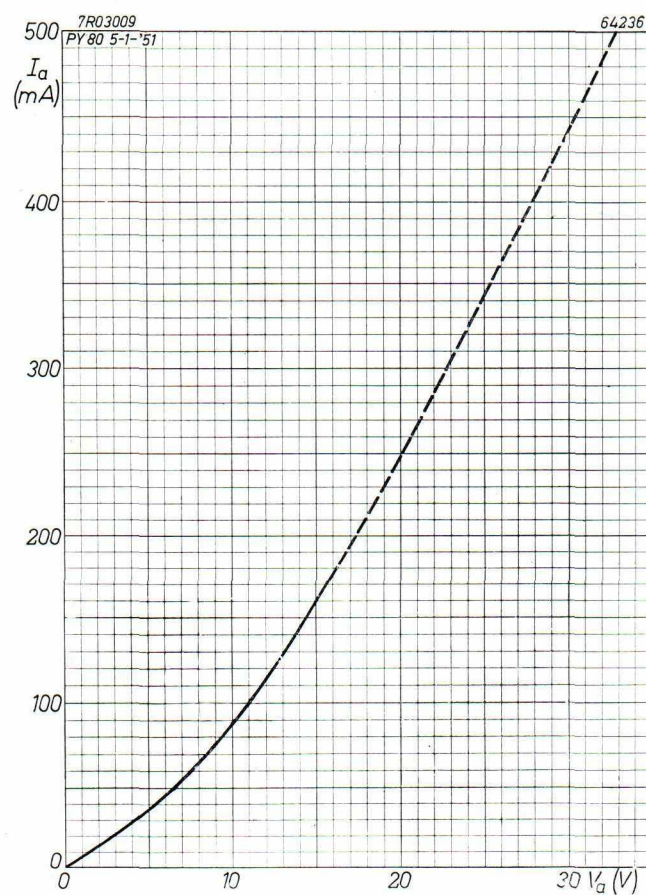


Fig. 119. Anode current plotted against anode voltage.