Osram
VALVES

Y61 and Y63 TUNING INDICATORS

DESCRIPTION

Types Y61 and Y63 are intended for visual indication of the correct tuning point in a receiver, or for any circuit where a small change in voltage is required to be indicated visually.

They consist of a fluorescent target and an indirectly heated cathode to provide a source of electrons which on striking the target cause a glow to appear. The glow area is controlled by a third electrode internally connected to a triode amplifier so that adequate sensitivity is provided. This triode has " variable-mu " characteristics which enable good angular movement to be obtained on a weak signal without overloading on a strong signal.

Type Y63 is similar to the Y61 but has different bulb dimensions.

RATINGS

|		
Heater Voltage ...	6·3	volts
Heater Current	0·3	approx. amp
Anode Supply Voltage	250	max. volts
Target Voltage*	250	max. volts
Target Current at Vg=0	4·5	approx. mA
Triode Current at Vg=0	0·25	approx. mA
Triode Grid Voltage for 0° shadow angle	−22	approx. volts

* The target voltage should in no circumstances fall below 180v.

OPERATING CONDITIONS

A typical circuit is shown overleaf in which variation in A.V.C. voltage causes a relative change in potential on the anode and control electrodes which in turn varies the shadow angle on the target.

Variation in the value of the resistor R1 will vary the shadow angle : the lower the resistance the smaller the zero bias shadow angle and the earlier the overload point occurs.
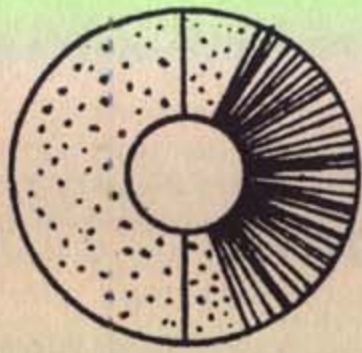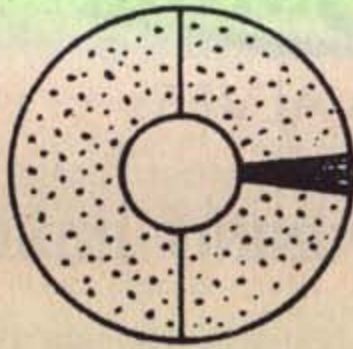
DIMENSIONS

BASE

View looking on underside of base.
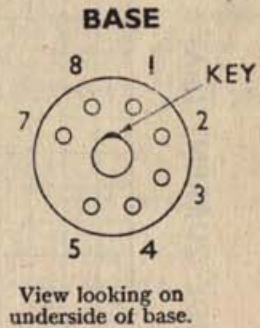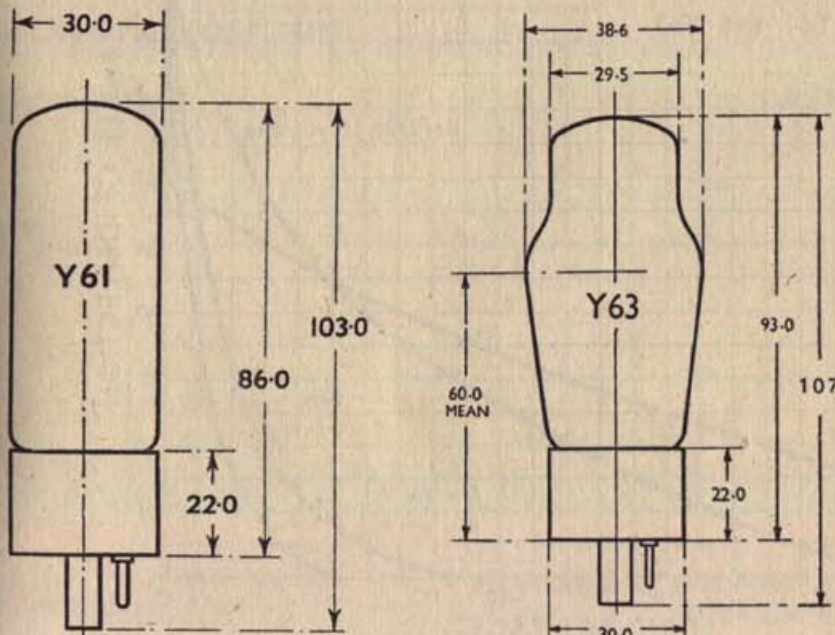
7-PIN OCTAL

Pin 1 : Not connected
2 : Heater
3 : Anode
4 : Target
5 : Grid
6 : Omitted
7 : Heater
8 : Cathode

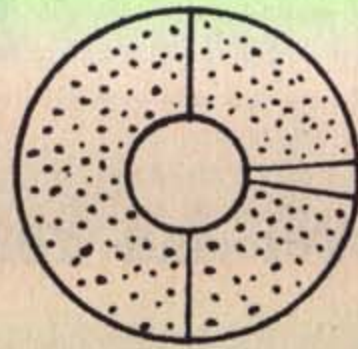*All dimensions are in mm. and are the maximum except where otherwise stated.*
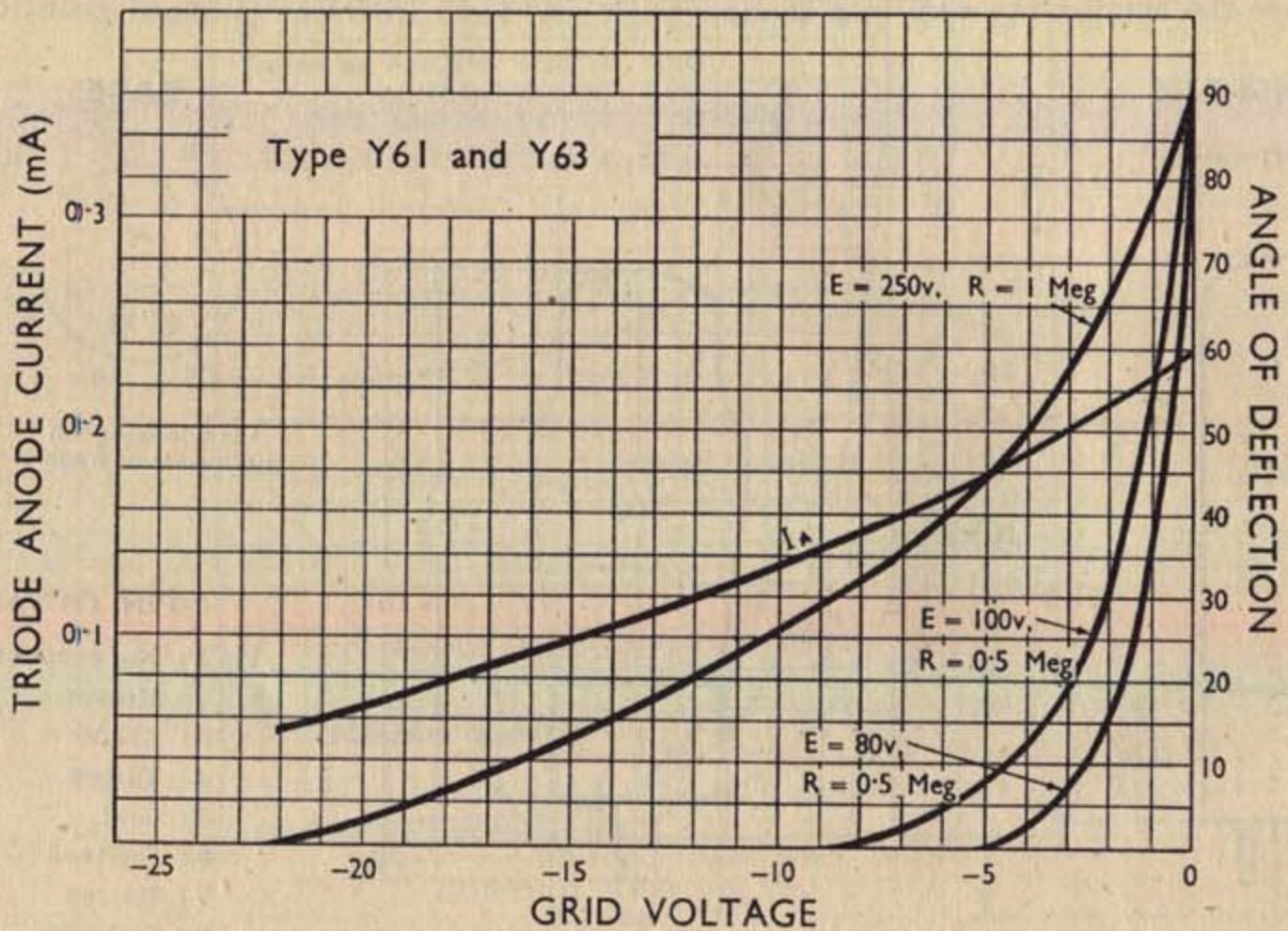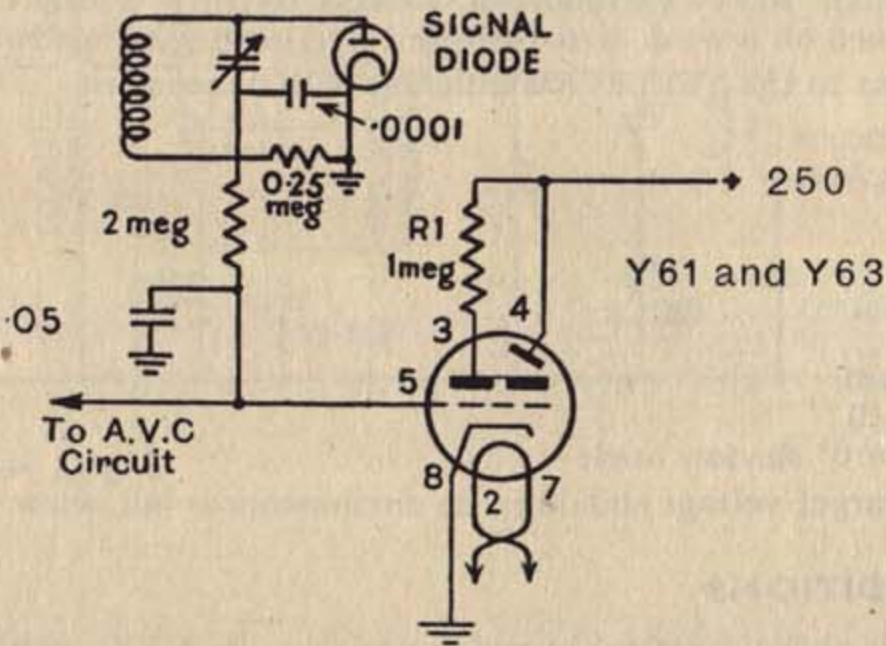
(a) Zero Grid Bias.   (b) Negative Grid Bias.   (c) Valve Overloaded.
                           (Signal in tune)

Patch of extreme brightness.

SIGNAL DIODE

·0001

2 meg   0·25 meg

·05

To A.V.C Circuit

R1 1meg

250

Y61 and Y63

CHARACTERISTIC CURVES OF AVERAGE INDICATOR.

Type Y61 and Y63

TRIODE ANODE CURRENT (mA)

ANGLE OF DEFLECTION

GRID VOLTAGE

E = 250v, R = 1 Meg

E = 100v, R = 0·5 Meg

E = 80v, R = 0·5 Meg