Osram Valves

Made in England.

TYPES X30 & X32

UNIVERSAL RANGE HEPTODE FREQUENCY CHANGERS

(With Indirectly Heated Cathode).

Maximum Dimensions :
Overall length (including pins) 135 m/m.

Diameter of bulb 45 m/m.

The OSRAM X30 and X32 are Heptode Valves for series or parallel running, such as in receivers intended for use with either D.C. or A.C. supply, or from 12-volt car batteries.

Their purpose is to operate as an electron coupled frequency changer in superheterodyne circuits. The Heptodes contain five grid electrodes, the function of these being as follows:—

G_1 (in proximity to cathode) :	Oscillator Grid.
G_2	Oscillator Anode.
G_3	Screen Grid.
G_4	Detector Control Grid. (variable mu)
G_5	Screen Grid (joined internally to G_3)

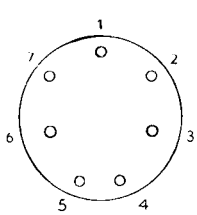
Type X32 differs from Type X30 in its construction, which minimises modulation hum when used in D.C.—A.C. receivers designed for considerable low-frequency response.

CHARACTERISTICS.

Heater Current		0.3 amp.	
Heater Volts		13.0	
		Recommended Operating Conditions.	
	Max.		
Anode Volts	250	180 to 250	
Screen Volts	100	80	
Oscillator Anode Volts	150	150	
Oscillator Grid Peak Swing		10 volts	
Control Grid Volts		−3	−30
Anode Current average		4.0 ma	negligible
Screen Current average		2.1 ma	3.5 ma
Oscillator Anode Current average		3.0 ma	4.8 ma
Total Cathode Current		9.1 ma	8.3 ma
Conversion Conductance		750 micromhos	2 micromhos
Interelectrode Capacities—			
Anode—Control Grid G_4	0.36	micro-microfarad approx.	
Control Grid G_4—other electrodes	15.6	,, ,, ..	
Control Grid G_4—Oscillator Grid G_1	0.23	,, ,, ..	
Control Grid G_4—Oscillator Anode G_2	0.2	,, ,, ..	
Oscillator Grid G_1—other electrodes	12.2	,, ,, ..	
Oscillator Anode G_2—other electrodes	9.5	,, ,, ..	
Oscillator Anode G_2—Oscillator Grid G_1	2.66	,, ,, ..	

(Taken on metallised valve)

For prices see pages 126-129.



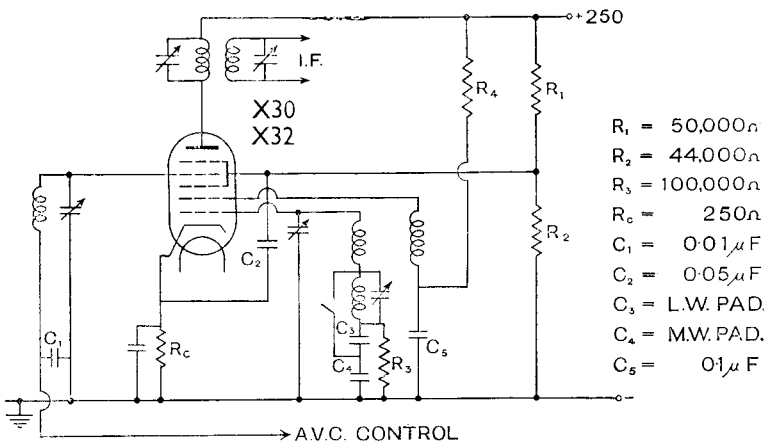
VIEW LOOKING ON UNDERSIDE OF BASE.

BASE, 7-PIN.

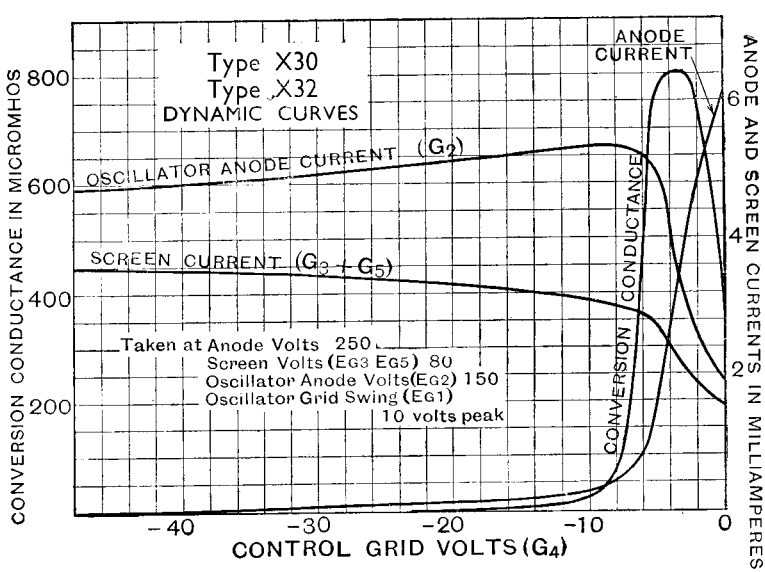
1 : Oscillator Anode G_2
2 : Oscillator Grid G_1
3 : Screen Grids G_3, G_5
4 : Heater
5 : Heater
6 : Cathode
7 : Anode
Top Cap : Control Grid G_4

Types X30 and X32 are supplied with metallised bulb only.

TYPES X30 & X32



TYPICAL CIRCUIT DIAGRAM.



CHARACTERISTIC CURVES OF AVERAGE VALVES.