

Osram Valves

Made in England.



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

Diameter of bulb 45 m/m.

TYPES X30 & X32

UNIVERSAL RANGE HEPTODE FREQUENCY CHANGERS

(With Indirectly Heated Cathode).

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 μ)
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.

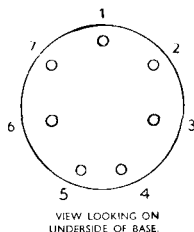
Heater Current	0.3 amp.
Heater Volts	13.0
	Recommended Operating Conditions.
	180 to 250
Anode Volts	250
Screen Volts	100
Oscillator Anode Volts	150
Oscillator Grid Peak Swing	10 volts
Control Grid Volts	-3
Anode Current average	4.0 ma
Screen Current average	2.1 ma
Oscillator Anode Current average	3.0 ma
Total Cathode Current	9.1 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.



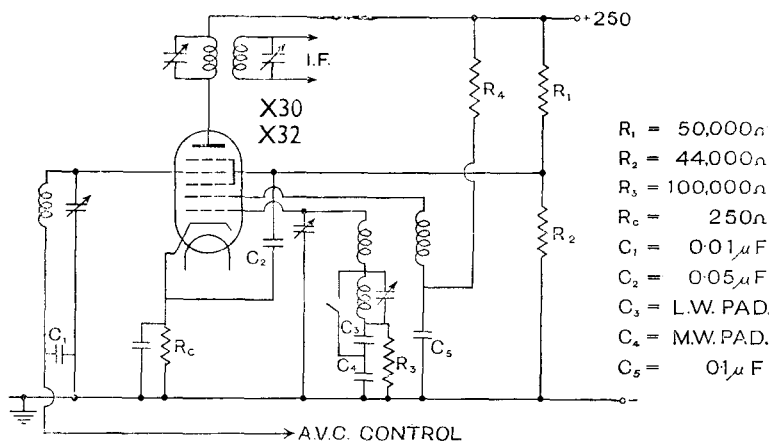
BASE, 7-PIN.

- 1: Oscillator Anode G₂
- 2: Oscillator Grid G₁
- 3: Screen Grids G₃, G₅
- 4: Heater
- 5: Heater
- 6: Cathode
- 7: Anode

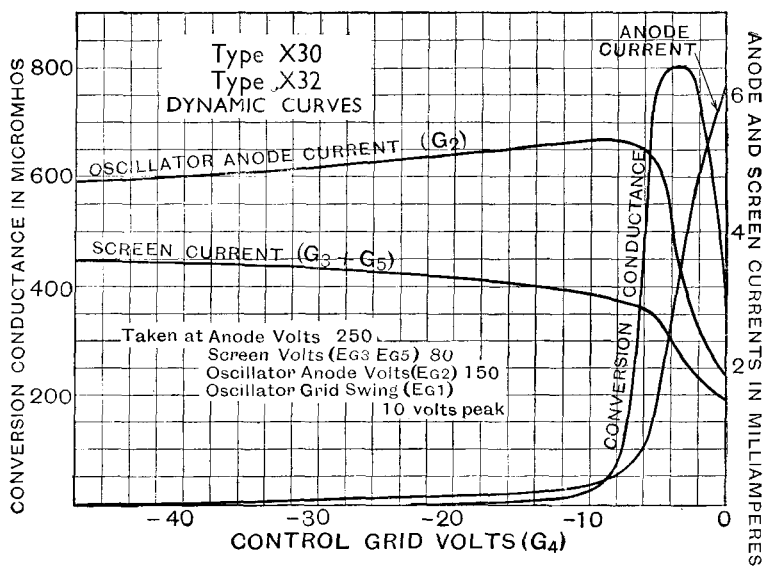
Top Cap: Control Grid G₄

Types X30 and X32 are supplied with metallised bulb only.

TYPES X30 & X32



TYPICAL CIRCUIT DIAGRAM.



CHARACTERISTIC CURVES OF AVERAGE VALVES.