

Osram

VALVES

MADE IN ENGLAND

X65 TRIODE-HEXODE FREQUENCY CHANGER

DESCRIPTION

Type X65 is a triode-hexode valve designed primarily for use as a frequency changer in superheterodyne circuits. Its major advantage is its high input impedance. Due to the electrode design the positive grid current effect on short waves is negligible, and thus the actual stage gain is of a high order on the short waveband, resulting in a good signal to noise ratio, and can be made reasonably constant over a wide frequency band.

RATINGS

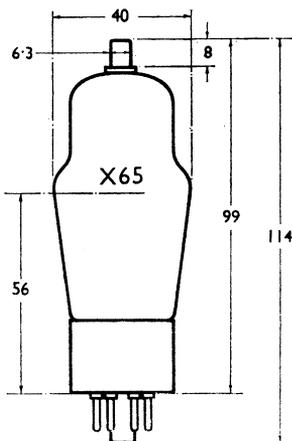
Heater Voltage	....	....	....	....	....	6.3	
Heater Current	....	....	....	....	....	0.3	amps.
Anode Voltage	....	....	....	....	....	250	max.
Screen Grid Voltage	...	....	....	....	....	100	max.
Signal Grid Voltage	...	....	....	....	....	-3	min.
Oscillator Anode Voltage	....	....	....	....	....	100	max.
Total Cathode Current	....	....	....	....	....	11	mA.
Conversion Conductance* at $V_{g1} - 3$	....	....	....	....	....	225	microamps./volt
						0.2	microamps./volt
Input Impedance* at 28 mc./sec.	....	....	....	....	....	22,400	ohms.
						6,800	ohms.
Conversion Impedance*	....	....	....	....	....	2.5	megohms.

* measured at $V_a = 250$; $V_{g2, 4} = 100$; $V_{oa} = 100$.

Capacitances :

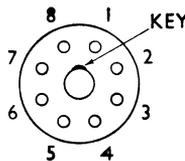
Oscillator Anode to All	....	....	....	....	....	5.6	pF approx.
Grid to All	....	....	....	....	....	3.7	" "
Anode to All	....	....	....	....	....	7.8	" "
Oscillator Grid to All	....	....	....	....	....	9.6	" "

DIMENSIONS



All dimensions are in m/m and are max. except where otherwise stated.

BASE



View looking on underside of base.

8 PIN "OCTAL."

Pin 1 :	Not connected
2 :	Heater
3 :	Anode
4 :	Screen Grids $g_{2, 4}$
5 :	Oscillator and Mixer Grid g_3
6 :	Oscillator Anode
7 :	Heater
8 :	Cathode
Top Cap :	Signal Grid g_1

Type X65 is not supplied with metallised bulb ; a screening can should be used when necessary.

OPERATING CONDITIONS

Anode Voltage	....	....	....	....	250
Screen Grid Voltage (Potentiometer supply)	....	....	....	....	100
Signal Grid D.C. Voltage	....	....	....	....	-3
Oscillator Anode D.C. Voltage (Series supply)	....	....	....	....	100
Oscillator Anode Resistor (from 250v. supply)	....	....	....	....	30,000
ohms.	....	....	....	....
Optimum R.F. Oscillator Grid Voltage, Peak	....	....	....	....	10
Oscillator Grid Resistor, ohms.	....	....	....	....	100,000
Total Cathode Current, mA.	....	....	....	....	11

