

# Osram

## VALVES

MADE IN ENGLAND

### KTW61 VARIABLE-MU SCREENED TETRODE

#### DESCRIPTION

Type KTW61 is an indirectly heated variable-mu screened tetrode with pentode characteristics, suitable for use in radio frequency amplifiers.

It has a high mutual conductance/total cathode current ratio resulting in a high signal-to-noise ratio, and also is capable of a considerable stage gain.

#### RATINGS

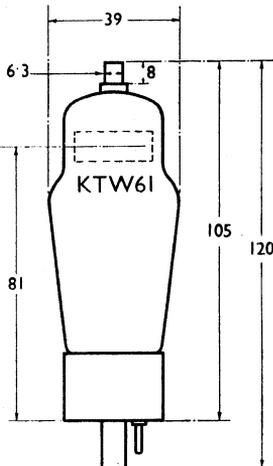
Heater Voltage ...	...	...	...	...	...	6.3	
Heater Current ...	...	...	...	...	...	0.3	amp. approx.
Anode Voltage ...	...	...	...	...	...	250	max.
Screen Voltage ...	...	...	...	...	...	100	max.
Mutual Conductance*	...	...	...	...	...	2.9	mA/volt
Anode Impedance*	...	...	...	...	...	0.45	megohms
Input Impedance at 30 mc/sec.*	...	...	...	...	...	12,000	ohms

\*measured at  $V_a = 250$ ;  $V_{g2} = 80$ ;  $V_{g1} = -3$

#### Capacitances (taken on metallised valve type KTW61M):

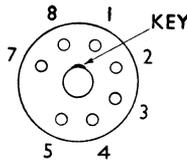
Grid to All ...	...	...	...	...	...	7.5	pF approx.
Anode to All ...	...	...	...	...	...	8.0	" "
Anode to Grid ...	...	...	...	...	...	0.0025	" "

#### DIMENSIONS



All dimensions are in mm and are max. except where otherwise stated.

#### BASE



View looking on underside of base.

#### 7-PIN "OCTAL"

Pin 1: Metallising in type KTW61M

- 2: Heater
- 3: Anode
- 4: Screen Grid,  $g_2$
- 5: Suppressor Plates
- 6: Omitted
- 7: Heater
- 8: Cathode

Top Cap: Control Grid,  $g_1$

Type KTW61 is supplied with unmetallised bulb. KTW61M (metallised bulb) is available to order only.

#### OPERATING CONDITIONS

Anode Voltage ...	...	...	...	250
Screen Voltage ...	...	...	...	80
Control Grid Voltage ...	...	...	...	-3
Anode Current ...	...	...	...	8.0 mA.
Screen Current...	...	...	...	2.3 mA.
Fixed Bias Resistance ...	...	...	...	300 ohms.

**THE GENERAL ELECTRIC CO., LTD.,**  
 Head Office: Magnet House, Kingsway, London, W.C.2.

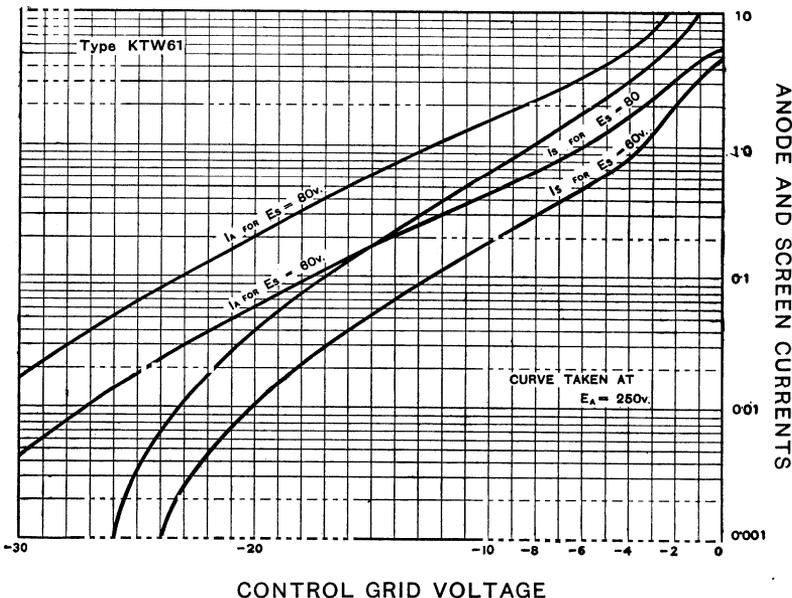
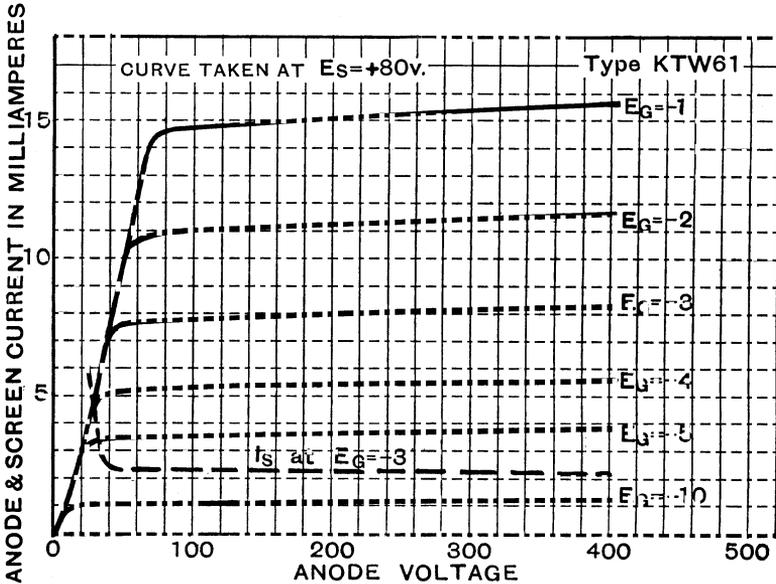
# TYPE KTW61

## OPERATING CONDITIONS (cont.)

For constant screen voltage conditions a potentiometer network should be employed. The valve may be operated with series screen feed to obtain a higher output voltage, if desired. In this case a series screen dropping resistance of 75,000 ohms may be used.

The total effective resistance between the grid and cathode must not exceed 4 megohms.

A screening can is essential and to obtain full advantage of the potential stage gain the length of the can should be 75 m/m, extending from the bottom of the bakelite base to the centre of the earthed screen inside the dome of the bulb. The diameter should be about 42.5 m/m and the can should fit closely round the dome.



CONTROL GRID VOLTAGE  
CHARACTERISTIC CURVES OF AVERAGE VALVE.