

KT63



KT63 OUTPUT TETRODE

DESCRIPTION

Type KT63 is an indirectly heated tetrode for use in the output stage of A.C. receivers or car radios. It is interchangeable with American type 6F6G.

RATINGS

Heater Voltage ...	...	...	...	...	...	...	...	...	6.3	volts
Heater Current ...	...	...	...	...	...	...	...	...	0.7 approx.	amp

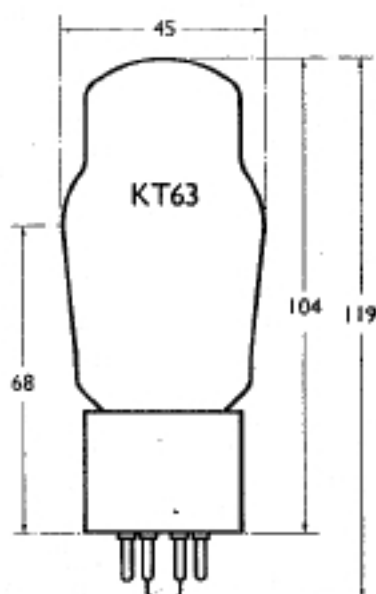
						Tetrode connected	Triode connected	
Anode Voltage ...	...	...	...	...	...	250	250	max. volts
Screen Voltage ...	...	...	...	...	...	250		max. volts
Anode Dissipation ...	...	...	...	...	...	8.5	7.5	max. watts
Amplification Factor* ...	...	...	...	...	...		7.7	
Impedance* ...	...	...	...	...	...		3,200	ohms
Mutual Conductance* ...	...	...	...	...	...	2.5	2.4	mA/V

*measured at $V_a = 250$; $V_{g_2} = 250$; $I_a = 34\text{mA}$

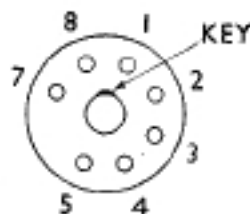
Capacitances :

Grid to all other electrodes ...	...	...	...	...	9.9		approx. pF
Anode to all other electrodes ...	...	...	...	...	8.5		" "
Anode to Grid ...	...	...	...	...	0.85		" "

DIMENSIONS



BASE



View looking on underside of base.

7 PIN OCTAL

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

All dimensions are in mm, and are the maximum except where otherwise stated.

TYPE KT63

OPERATING CONDITIONS

Single Valve, Class A					Tetrode connected	Triode connected	
Anode Voltage	...	...	...	...	250	250	volts
Screen Voltage	...	...	...	...	250		volts
Anode Current	...	...	...	...	34	30	mA
Screen Current	...	...	...	...	5.5		mA
Grid Bias Voltage	...	...	...	...	-16.5	-20	volts
Bias Resistor	...	...	...	...	420	650	ohms
Anode Load	...	...	...	...	7,000	4,500	ohms
Power Output	...	...	...	...	3.0	0.7	watts

A typical circuit is given showing type KT63 in a resistance-coupled amplifier.

Two Valve Class AB1 Push Pull Amplifier, Tetrode Connection

Operating data :—

Anode Voltage	...	...	...	...	250	volts
Screen Voltage	...	...	...	...	250	volts
Anode Current average (2 valves)	...	...	...	...	64	mA
Screen Current average (2 valves)	...	...	...	...	14	mA
Grid Voltage	...	...	...	...	-20	volts
Input Voltage (grid-to-grid)	...	...	...	...	39	peak volts
Load Resistance (anode-to-anode)	...	...	...	...	12,000	ohms
Common Bias Resistor	...	...	...	...	250	ohms
Power Output	...	...	...	...	6	approx. watts
Total Distortion	...	...	...	...	4	%

A typical circuit is given for a push-pull amplifier in which 10% degeneration (negative feedback) is applied. This reduces the sensitivity, but at the same time reduces distortion and levels the frequency response. The feedback circuit may be omitted if desired.

Precautions in use

The wiring and arrangement of the circuit should be such as to keep the capacitance between input and output circuits at as low a value as possible.

A grid stopper resistor of approximately 10,000 ohms, or screen stopper of 100 ohms should be inserted in the circuit close to the connections of the valve holder.

The total resistance in the grid circuit should in no case exceed 50,000 ohms with fixed bias, or 500,000 ohms with automatic bias.

Automatic bias by means of a cathode resistor should be employed whenever possible.

Care should be taken to remove the screen voltage if the anode is disconnected from the H.T supply.

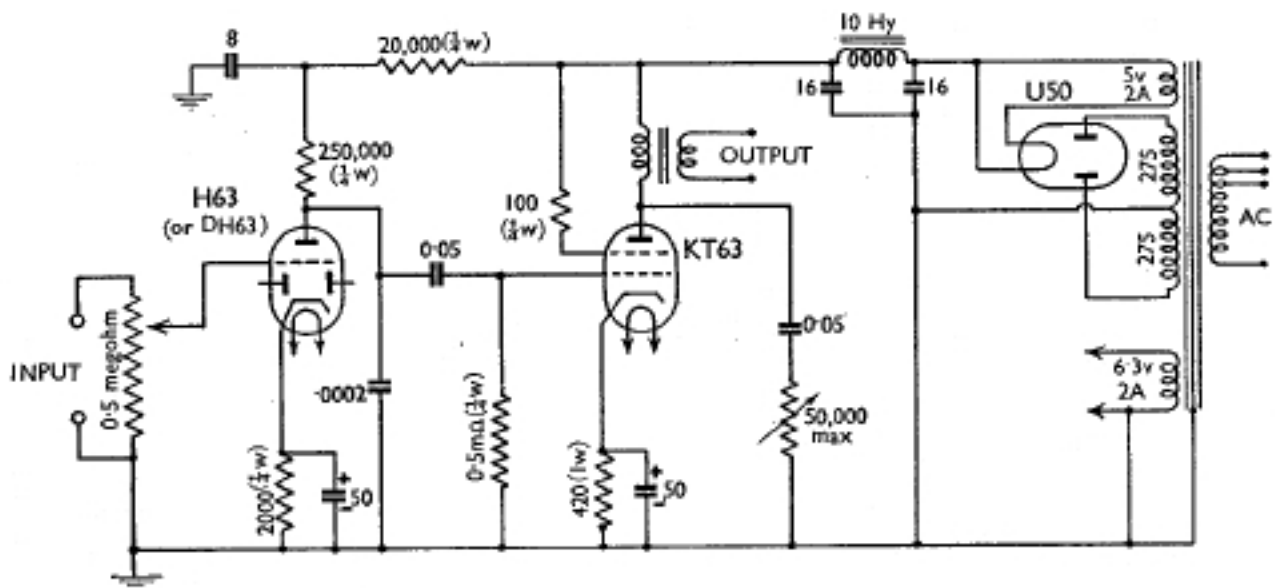
Adequate ventilation must be provided.

The output transformer in all cases should have low leakage inductance and be of ratio :—

$$\frac{\text{Total Primary Turns}}{\text{Total Secondary Turns}} = \sqrt{\frac{\text{Anode Load.}}{\text{Speaker Impedance.}}}$$

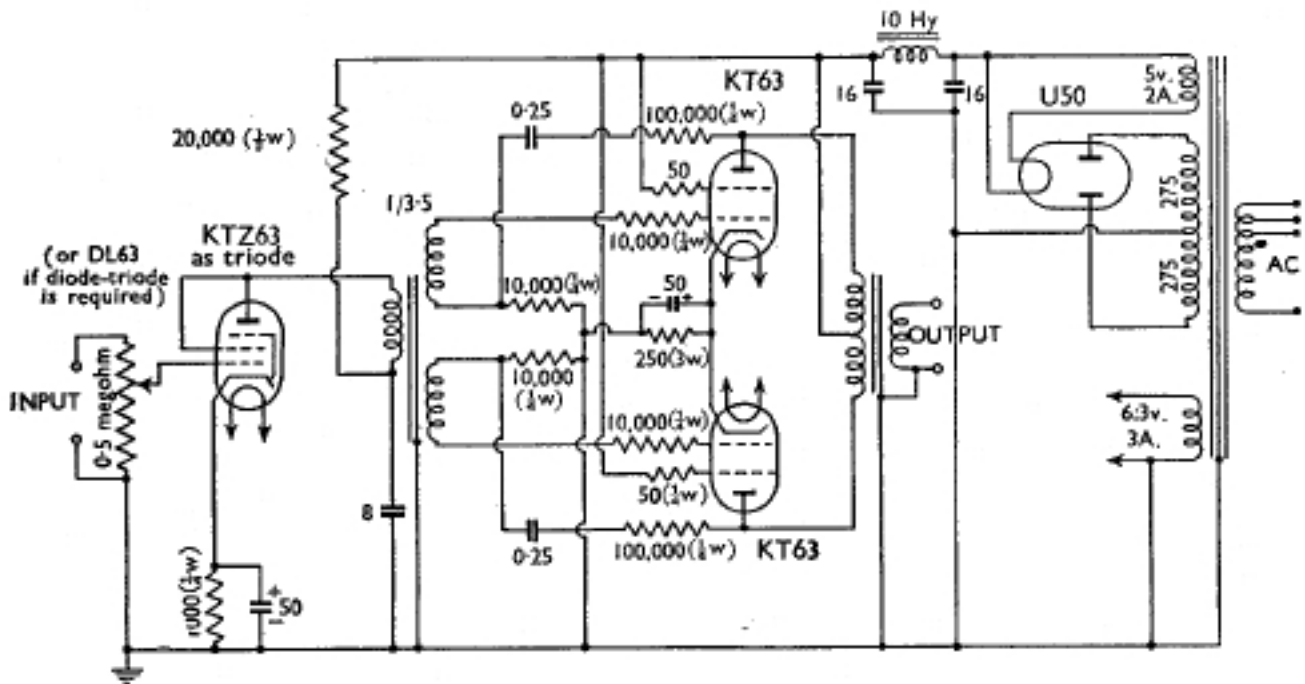
The circuit information given does not imply any licence under any patents which may be involved.

TYPE KT63



SINGLE VALVE IN CLASS A AMPLIFIER CIRCUIT.

Input to H63 (or DH63 grid) for max. output ... 0.14v R.M.S.



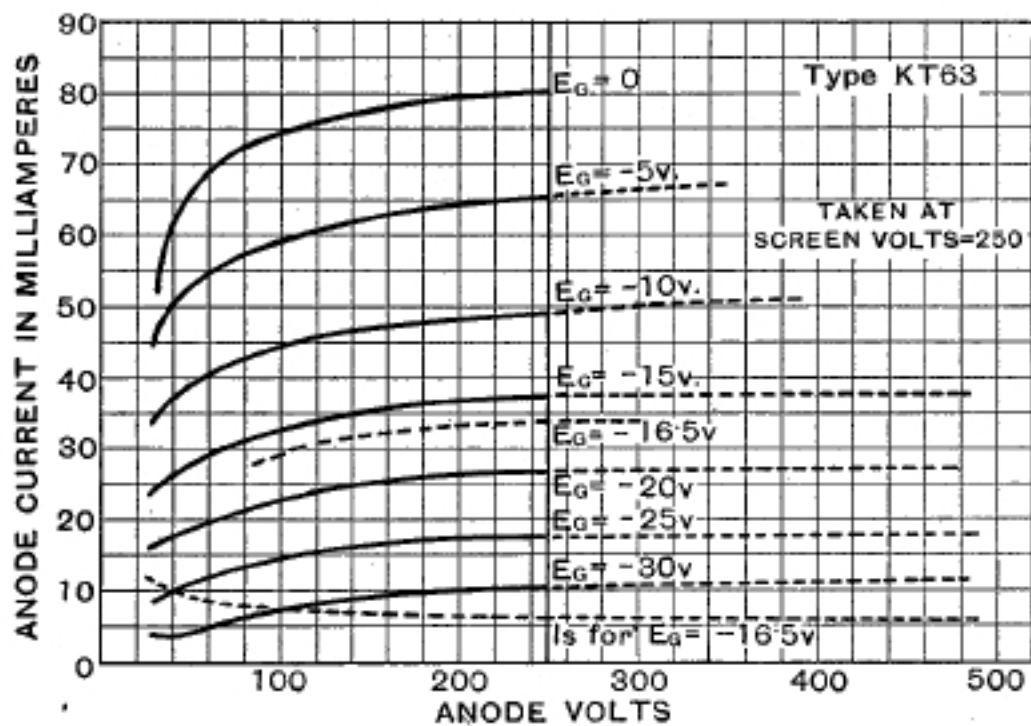
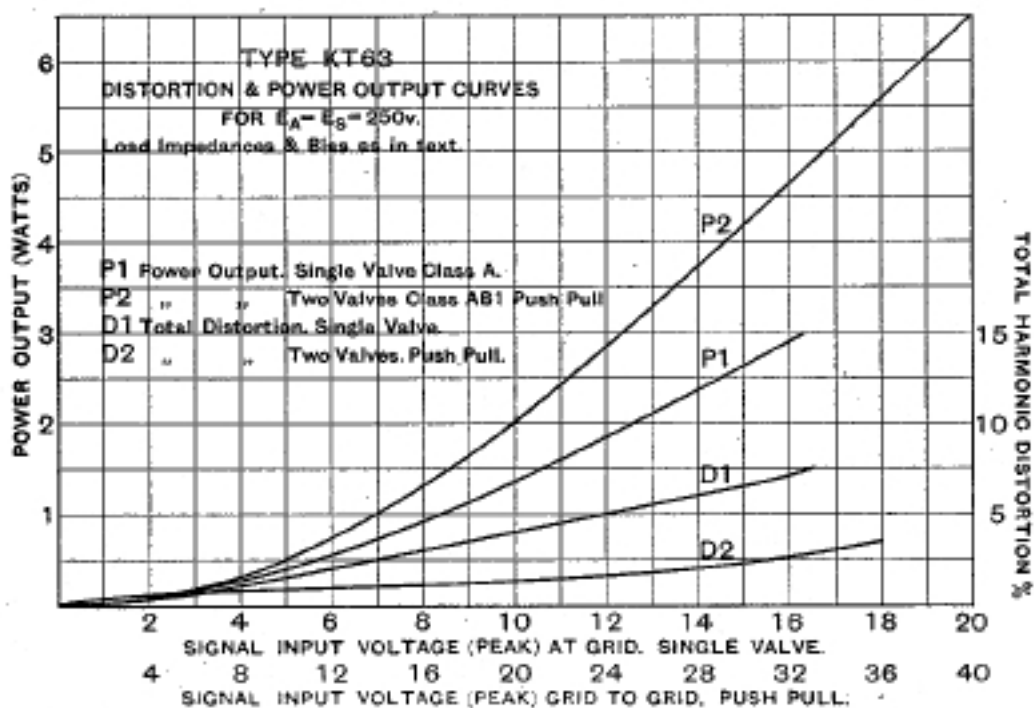
TWO VALVES IN CLASS AB1 PUSH-PULL AMPLIFIER CIRCUIT.

(with degeneration).

Input to KTZ63 for max. output ... 0.5v R.M.S.

(If DL63 is used, input ... 0.2v R.M.S.)

TYPE KT63



CHARACTERISTIC CURVES OF AVERAGE VALVE.