

# KT33C



## KT33C OUTPUT TETRODE

### DESCRIPTION

Type KT33C is an indirectly heated power tetrode for use in A.C./D.C. receivers or amplifiers where the supply mains voltage is 200 to 250 volts.

By utilising the heater centre tap, the valve becomes suitable for operation from a 12-13 volt low tension supply, such as a car battery.

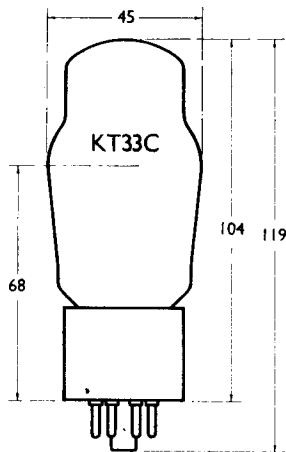
### RATINGS

Heater Current ...	...	...	...	...	0.6	0.3	amp
Heater Voltage ...	...	...	...	...	13.0	25.0	volts
Anode Voltage ...	...	...	...	...		200	max. volts
Screen Voltage ...	...	...	...	...		200	max. volts
Anode Dissipation ...	...	...	...	...		13	max. watts
Mutual Conductance measured at $V_a = V_{g_2} = 175$ ; $V_{g_1} = -7.0$	...	...	...	...		10	mA/V

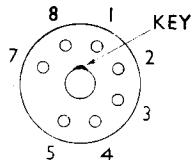
### Capacitances :

Anode to all other electrodes ...	...	...	...	...	12.0	approx. pF
Control Grid to all other electrodes ...	...	...	...	...	19.0	" "
Anode to Control Grid ...	...	...	...	...	1.2	" "

### DIMENSIONS



### BASE



View looking on underside of base.

- 7-PIN OCTAL**
- Pin 1 : Heater Centre Tap
  - 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.*

### OPERATING CONDITIONS

	Single Valve		Pair in Push-pull		
	Class A		Class IAB		
Anode Voltage ...	200	150	200	150	volts
Screen Voltage ...	200	150	200	150	volts
Grid Voltage approx. ...	-13.3	-9.9	-19.1	-13.2	volts
Anode Current average ...	60	44	113*	80*	mA
Screen Current average ...	10	8	18*	12*	mA
Bias Resistor (per valve) ...	190	190	240	240	ohms
Load Resistance ...	3,000	3,000	4,000†	4000†	ohms
Input Signal Voltage ...	12.3	8.9	44	24	peak volts
Distortion ...	8	8	7.5	3.9	%
Power Output ...	5.0	3.0	15.5	7.5	watts

\* Total no load.

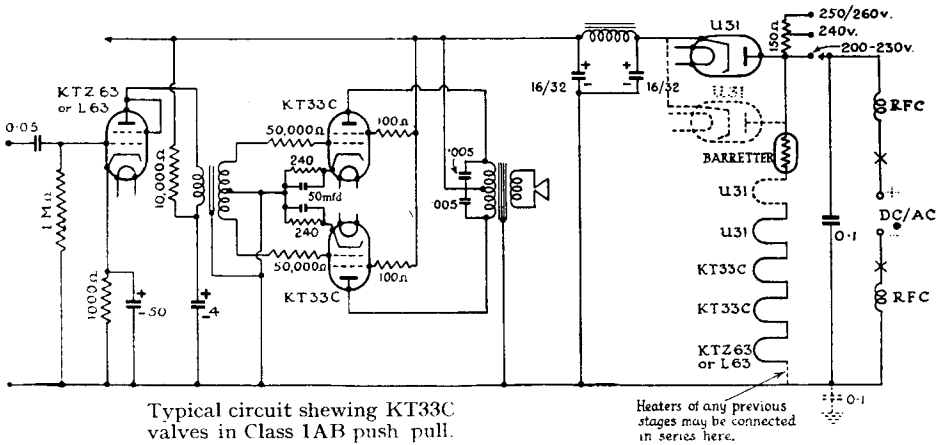
† Anode-to-anode.

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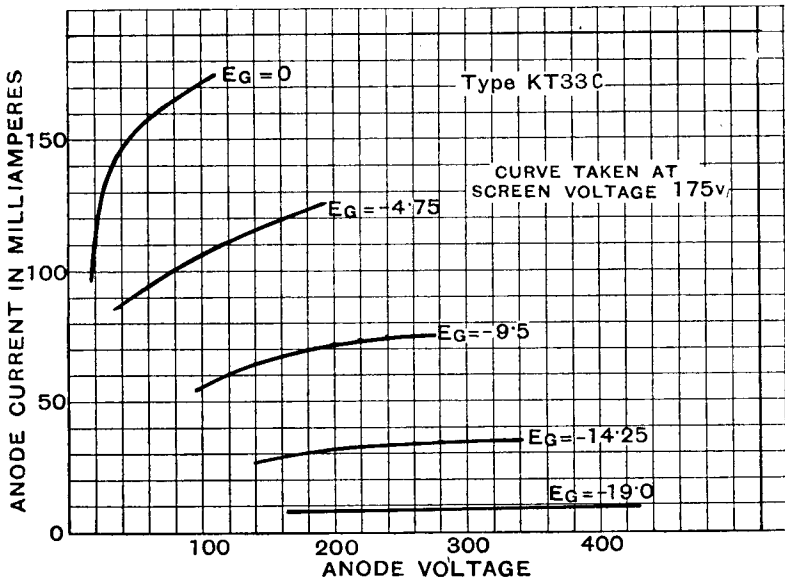
## OPERATING CONDITIONS (cont.)

Any tendency to instability is prevented by the use of a grid stopping resistor (10,000—100,000 ohms) and/or a screen stopping resistor, mounted close to the valve holder, of 50—100 ohms.

It may be necessary to include a tapped resistor (approx. 150 ohms.) in the mains lead in order to keep the anode dissipation within the maximum safe value, in cases of high voltage (240—260 volts) supply mains.

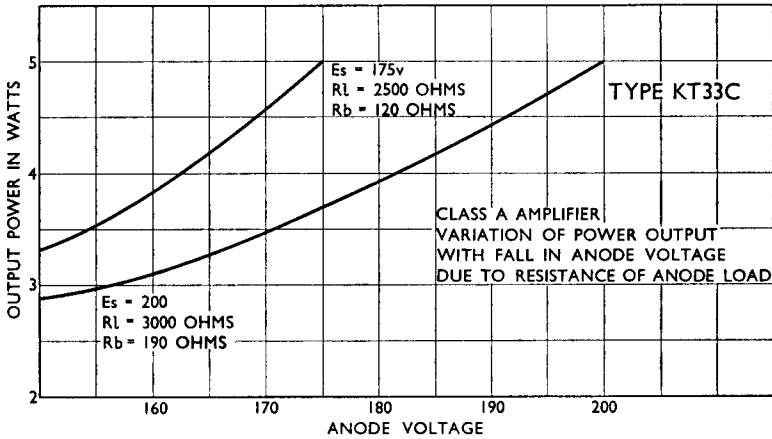
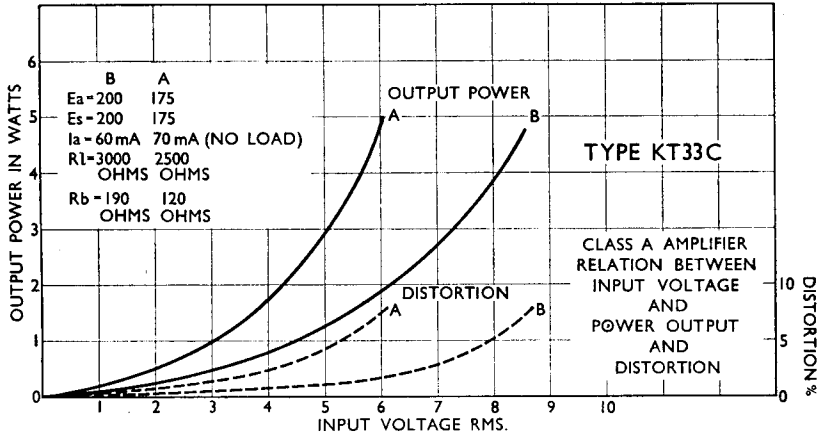


Two U31 rectifiers are necessary when operating a push pull output stage under maximum conditions with 200—240 volt supply.



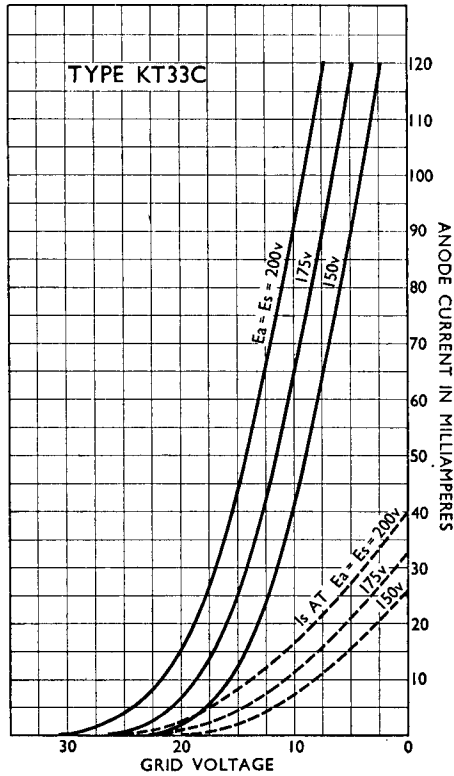
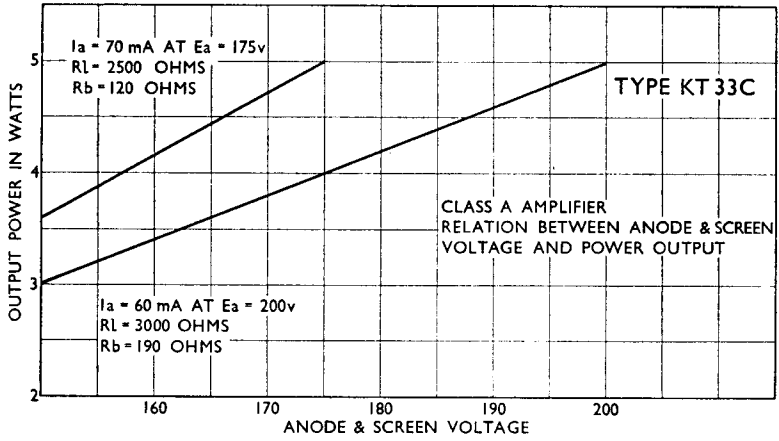
CHARACTERISTIC CURVES OF AVERAGE VALVE.

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