

# Osram Valves

Made in England.

## TYPE DA30 POWER AMPLIFYING TRIODE, With Directly Heated Filament.

*Maximum Dimensions :*  
*Overall length (including pins)*  
*160 m/m.*  
*Diameter of bulb 66 m/m.*

The OSRAM DA30 is a Power Amplifying Triode for use in the output stage of amplifiers where a considerable undistorted power is required without recourse to the application of high H.T. voltages. The principal application of the DA30 is to push-pull amplifiers, in which a pair of valves are employed under conditions which allow for a considerable undistorted power output by adjustment of the anode to anode load impedance to a lower value than the normal figure for Class "A" operation.

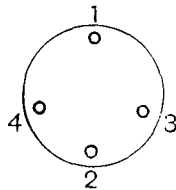
### CHARACTERISTICS.

|                                   |                                                                 |                                                          |
|-----------------------------------|-----------------------------------------------------------------|----------------------------------------------------------|
| Filament Volts .. .. .            | 4.0                                                             |                                                          |
| Filament Current .. .. .          | 2.0 amps. approx.                                               |                                                          |
| Anode Volts .. .. .               | 500 max.                                                        |                                                          |
| Grid Volts .. .. .                | -134 approx.                                                    |                                                          |
| Anode Current average .. .. .     | 60 m.a.                                                         |                                                          |
| Anode Dissipation .. .. .         | 30 watts. max.                                                  |                                                          |
| Amplification Factor .. .. .      | 3.5                                                             | { 4                                                      |
| Impedance .. .. .                 | 910 ohms.                                                       | { 580 ohms.                                              |
| Mutual Conductance .. .. .        | 3.85 ma/volt (measured at Anode Volts 500, Anode current 60 ma) | { 6.9 ma/v. (measured at Anode Volts 100, Grid Volts 0.) |
| Optimum Load Resistance .. .. .   | 6000 ohms.                                                      | { for single 3,400 ohms (anode to                        |
| Automatic Bias Resistance .. .. . | 2300 ohms.                                                      | { valve anode in low loading push pull)                  |

### Interelectrode Capacities :

|                        |                                |
|------------------------|--------------------------------|
| Grid-Anode .. .. .     | 13.0 micro-microfarads approx. |
| Anode-Filament .. .. . | 6.5 " " "                      |
| Grid-Filament .. .. .  | 10.0 " " "                     |

For prices see  
pages 126-129.



View looking on  
underside of base

BASE. 4-pin.

1. Anode.
2. Grid.
3. Filament.
4. Filament.

### TYPICAL OPERATING CONDITIONS.

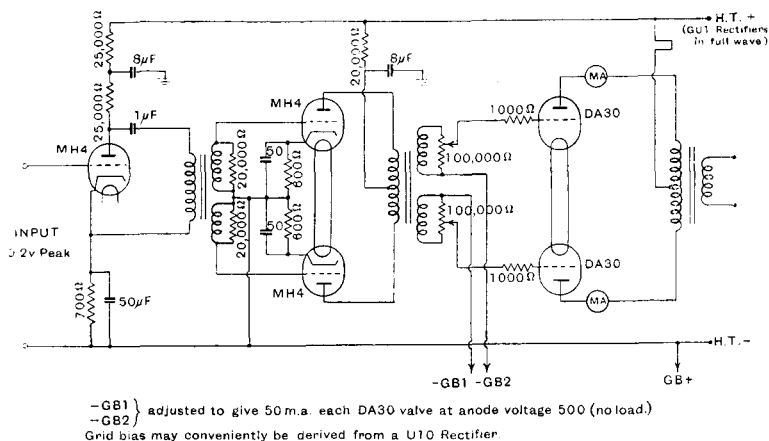
Under Class "A" conditions automatic grid bias is strongly recommended.

A common application of the DA30 valve is however the use of two such valves in a push-pull circuit involving low anode load impedance.

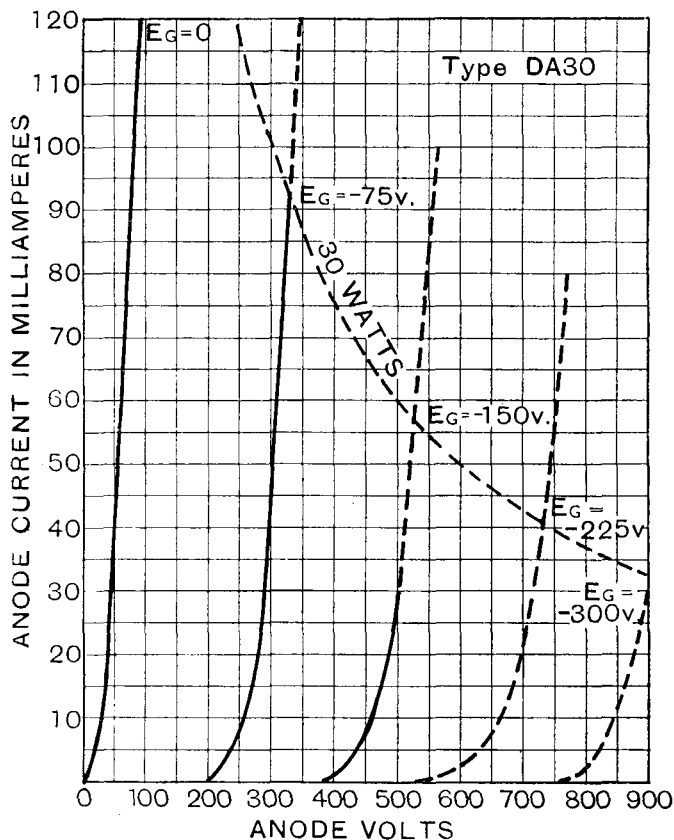
By the use of a pair of DA30 Valves in a push-pull circuit with low impedance loads, it is possible to obtain an undistorted power output up to 45 watts per pair. Complete operating details are obtainable on application.

Care should be taken to switch off the power supply when inserting or removing the valve from its socket or when any adjustments are made to the circuit, such as alteration to grid bias.

# TYPE DA30



Typical circuit for 45 Watt Amplifier.



(Taken with D.C. filament heating)

CHARACTERISTIC CURVES OF AVERAGE VALVE.