

# *—Standard Valves—*

4015-A  
Valve

## 4015-A VALVE

TRIODE.

### SPECIFICATION.

#### Cathode.

Pure tungsten filament.  
Constant voltage type.

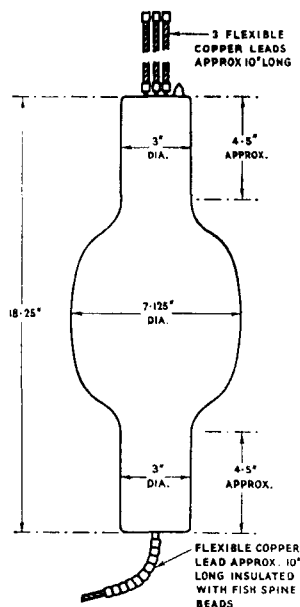
#### Dimensions.

Overall length  $18\frac{1}{2}"$  (46.4 cms.)  
Maximum diameter  $7\frac{1}{8}"$  (18.1 cms.)  
Net weight  $3\frac{1}{4}$  lbs. (1,500 gms.)

#### Constants.

Filament voltage 10.5–11.5 volts  
(exact filament voltage marked  
on bulb)  
Nominal filament current 41 amps.  
Total emission 2.5 amps.  
\*Impedance 8,000 ohms  
\*Amplification factor 20  
\*Mutual conductance 2.5 mA. per volt  
Grid–anode capacity  $10.3 \mu\mu\text{F.}$   
Anode–filament capacity  $0.5 \mu\mu\text{F.}$   
Grid–filament capacity  $15.2 \mu\mu\text{F.}$

\* at  $V_p = 4,000$  volts,  $I_p = 0.3$  amps.



### LIMITING CONDITIONS FOR SAFE OPERATION.

|                              |             |
|------------------------------|-------------|
| Maximum direct anode voltage | 5,000 volts |
| Maximum direct anode current | 0.6 amps.   |
| Maximum anode dissipation    | 1.5 Kw.     |
| Maximum direct grid current  | 0.080 amps. |

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**TYPICAL OPERATING CONDITIONS.**

|                                        |                                                             |
|----------------------------------------|-------------------------------------------------------------|
|                                        | Class B A.F. Amp. and Mod.<br>For balanced 2 valve circuit. |
| Direct anode voltage                   | 5,000 volts                                                 |
| Grid bias                              | —100 to —150 volts                                          |
| Anode current per valve—zero signal    | 0.12 amps.                                                  |
| Anode current per valve—maximum signal | 0.6 amps.                                                   |
| Anode dissipation                      | 1.4 Kw.                                                     |
| Load resistance—anode to anode         | 7,100 ohms                                                  |
| Maximum output—2 valves                | 3.2 Kw.                                                     |

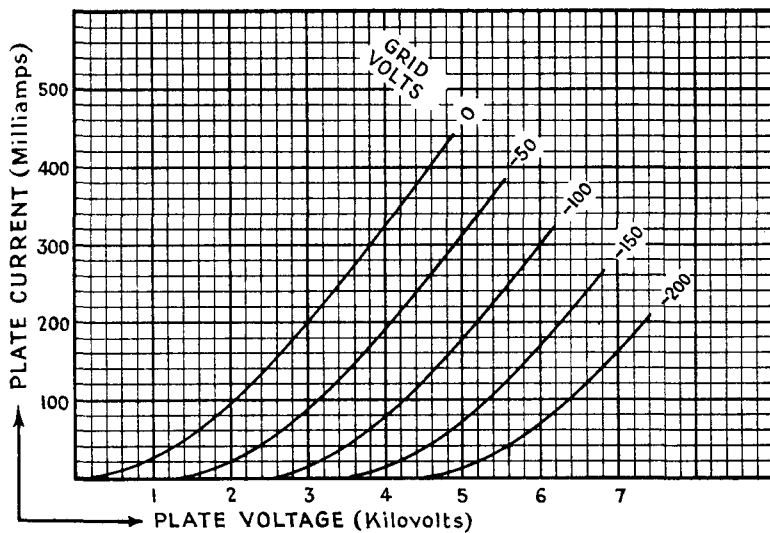
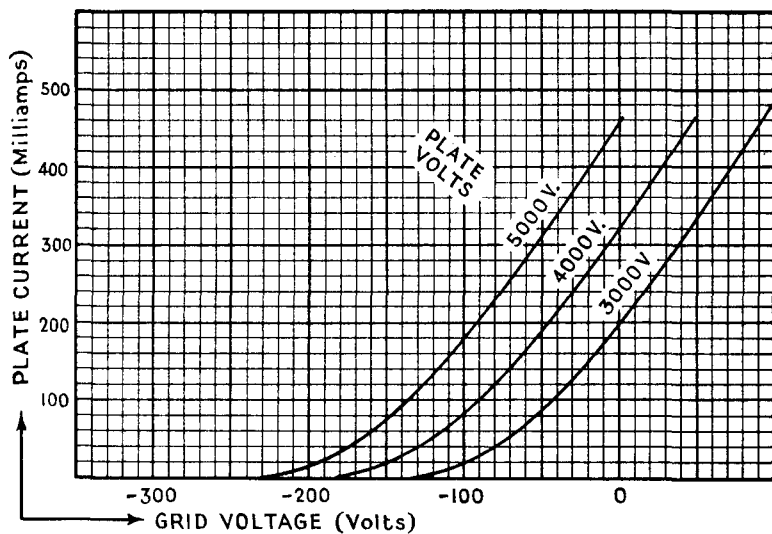
**RADIO FREQUENCY OPERATION.**

|                      | Class B<br>Telephony                    | Class C<br>Telephony              | Class C<br>Telegraphy |
|----------------------|-----------------------------------------|-----------------------------------|-----------------------|
|                      | Modulated<br>Carrier<br>applied to grid | Subject to<br>anode<br>modulation | Unmodulated           |
| Direct anode voltage | 5,000                                   | 4,000                             | 5,000 volts           |
| Direct anode current | 0.28                                    | 0.3                               | 0.6 amps.             |
| Grid bias            | —190                                    | —350                              | —450 to<br>—600 volts |
| Anode dissipation    | 980                                     | 400                               | 1,000 watts           |
| Carrier output       | 420                                     | 800                               | 2,000 watts           |

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These curves are taken with A.C. filament heating, grid and anode voltages being referred to the centre point of the filament.



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