

# —Standard Valves—

4097-A  
Valve

## 4097-A VALVE

TRIODE.

### SPECIFICATION.

#### Cathode.

Oxide coated filament.  
Constant voltage type.

#### Base.

Standard British 4-pin.

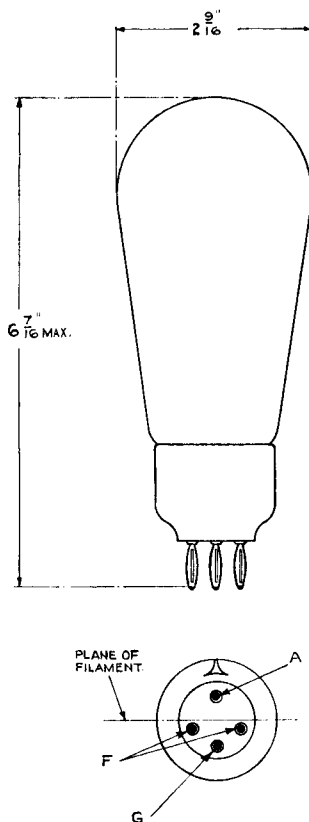
#### Dimensions.

Maximum overall length  $6\frac{7}{16}"$  (16.3 cm.)  
Maximum diameter  $2\frac{9}{16}"$  (6.5 cm.)

#### Constants.

|                          |                      |
|--------------------------|----------------------|
| Filament voltage         | 6 volts              |
| Nominal filament current | 1.1 amps.            |
| *Impedance               | 3,000 ohms           |
| *Amplification factor    | 10                   |
| *Mutual conductance      | 3.3 mA per volt      |
| Grid-anode capacity      | 8.5 $\mu\text{F}$ .  |
| Grid-filament capacity   | 12.5 $\mu\text{F}$ . |
| Anode-filament capacity  | 10.5 $\mu\text{F}$ . |

\* At  $V_p = 500$  volts.  $I_p = 50$  mA.



### LIMITING CONDITIONS FOR SAFE OPERATION.

|                                               |           |
|-----------------------------------------------|-----------|
| Maximum direct anode voltage                  | 500 volts |
| Maximum anode dissipation                     | 35 watts  |
| Maximum direct anode current                  | 135 mA.   |
| Maximum frequency for above ratings           | 2 Mc.     |
| Maximum anode voltage for frequency of 10 Mc. | 400 volts |

Tentative data

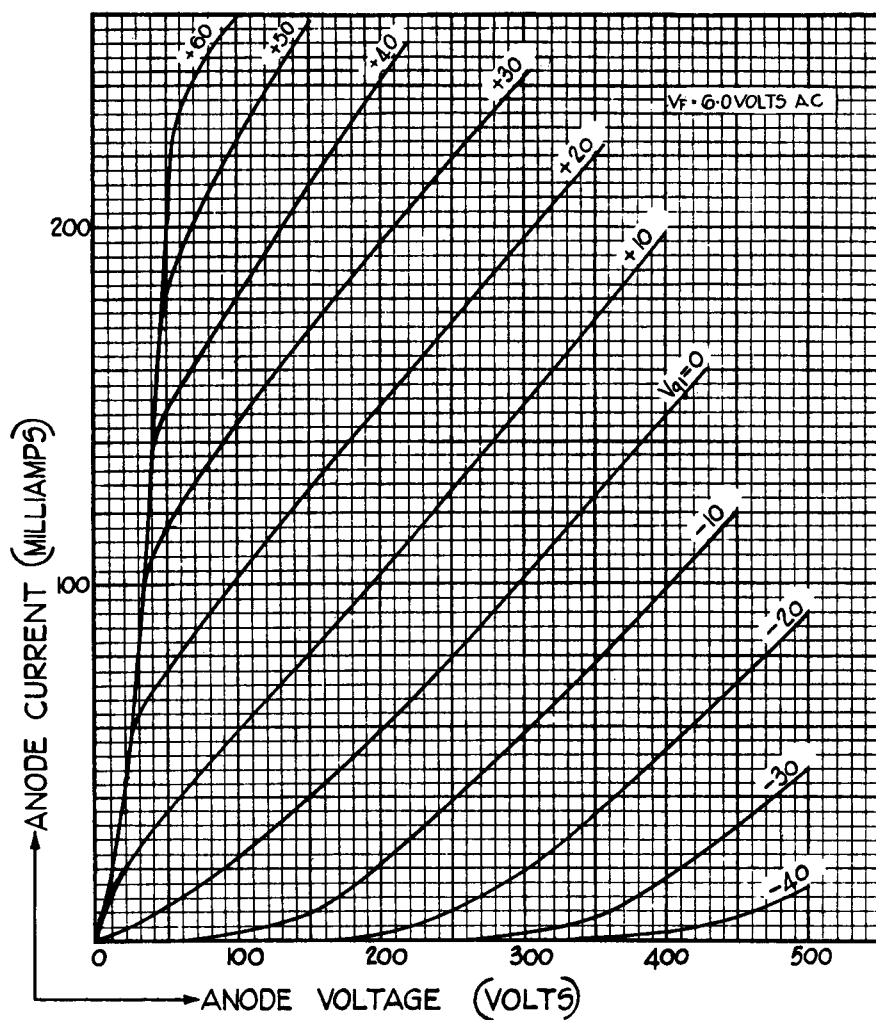
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|                                            |                                                             |
|--------------------------------------------|-------------------------------------------------------------|
|                                            | Class B. A.F. Amp. and Mod.<br>For balanced 2-valve circuit |
| Direct anode voltage                       | 500 volts                                                   |
| Grid bias (approx).                        | —38 volts                                                   |
| Direct anode current per valve—zero signal | 25 mA.                                                      |
| maximum signal                             | 135 mA.                                                     |
| Load resistance, anode to anode            | 3,300 ohms                                                  |
| Anode dissipation per valve                | 30 watts                                                    |
| Maximum signal output—2 valves             | 75 watts                                                    |

|                      | 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 | 500                                     | 350                               | 500 volts             |
| Direct anode current | 100                                     | 130                               | 120 mA.               |
| Control grid bias    | —45                                     | —80                               | —100 to<br>—150 volts |
| Anode dissipation    | 33                                      | 15                                | 20 watts              |
| Power output         | 17                                      | 30                                | 40 watts              |

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