

—Standard Valves—

4305-A
Valve

4305-A VALVE

TETRODE.

SPECIFICATION.

Cathode.

Thoriated tungsten filament.
Constant voltage type.

Base.

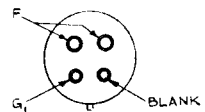
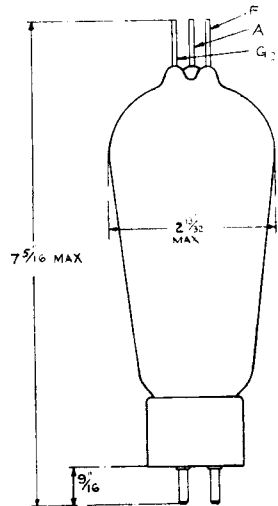
American medium 4-pin. Screen, anode and filament centre connections made to tungsten rods brought out separately through top of bulb.

Dimensions.

Max. overall length $7\frac{5}{16}$ " (19.3 cms.)
Max. Diameter $2\frac{11}{16}$ " (6.1 cms.)
Net weight 0.2 lbs. (90 gms.)

Constants.

Filament voltage 10 volts
Nominal filament current 3.1 amps.
*Amplification factor 56
*Impedance 40,000 ohms
*Mutual conductance 1.4 mA. per volt
Total emission 1 amp.
Grid-anode capacity $0.14\ \mu\mu\text{F}$.
Input capacity $10.5\ \mu\mu\text{F}$.
Output capacity $5.4\ \mu\mu\text{F}$.
* at $V_p = 1,000$ volts, $I_p = 60$ mA.



LIMITING CONDITIONS FOR SAFE OPERATION.

| | |
|--|-------------|
| Maximum direct anode voltage | 1,000 volts |
| Maximum direct anode current | 0.125 amps. |
| Maximum anode dissipation | 60 watts |
| Maximum screen-grid voltage | 200 volts |
| Maximum screen-grid dissipation | 6 watts |
| Maximum direct grid current | 0.040 amps. |
| Maximum frequency for above ratings | 50 Mc. |
| Maximum anode voltage for frequency of 100 Mc. | 500 volts |

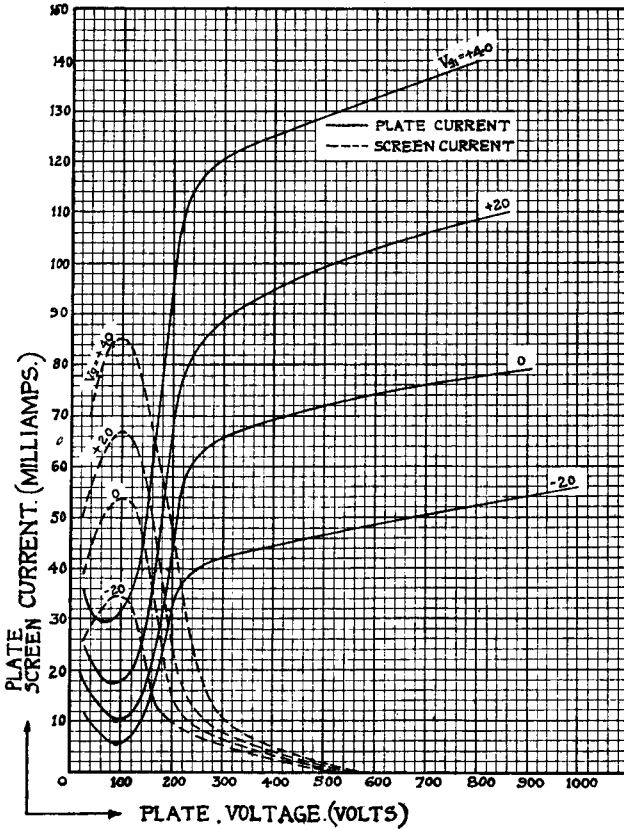
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TYPICAL OPERATING CONDITIONS. RADIO FREQUENCY OPERATION.

| | Class B Telephony | | Class C Telephony | | Class C Telegraphy | |
|----------------------------|---|------|-----------------------------------|------|-----------------------|-----------------------|
| | Modulated Carrier applied to grid | | Subject to anode modulation | | Unmodulated | |
| Direct anode voltage | 1,000 | 750 | 800 | 500 | 1,000 | 750 volts |
| Control grid bias | -135 | -100 | -270 | -200 | -200 | -150 to -200 volts |
| Direct screen-grid voltage | 200 | 150 | 200 | 200 | 200 | 200 volts |
| Direct anode current | 90 | 120 | 125 | 125 | 125 | 125 mA. |
| Anode dissipation | 60 | 60 | 30 | 30 | 40 | 29 watts |
| Carrier output | 30 | 30 | 70 | 42 | 85 | 65 watts |

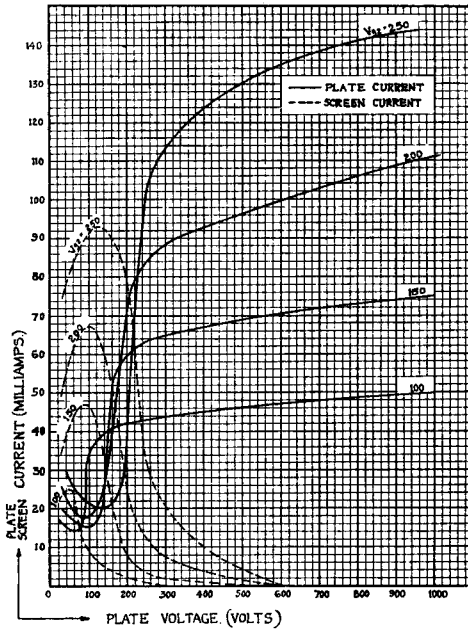
These curves are taken at :— $V_F = 10.0$ volts D.C. $V_{g_2} = 200$ volts.



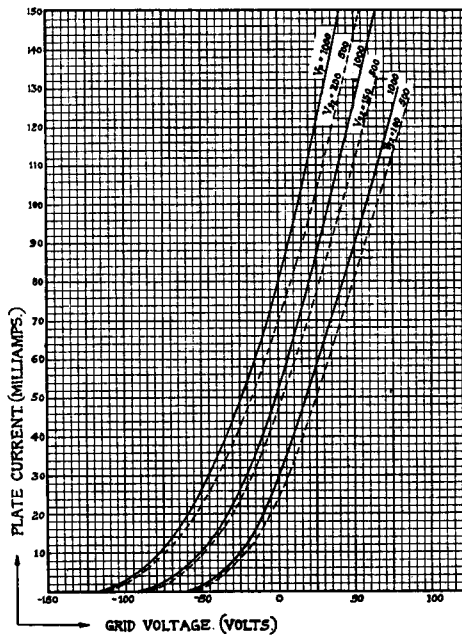
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These curves are taken at $:-V_F = 10.0$ volts D.C. $V_{g_1} = +20$ volts.



These curves are taken at $:-V_F = 10.0$ volts D.C.



V.4305-A.2
Sept. 1938.

PRINTED IN
ENGLAND