

—Standard Valves—

3C/150-A

VALVE TYPE 3C/150-A

HIGH FREQUENCY TRIODE.

SPECIFICATION.

Cathode.

Thoriated tungsten filament.
Constant voltage type.

Dimensions.

Maximum overall length $9\frac{15}{16}$ " (25.2 cm.)
Bulb diameter 2.83" (7.2 cm.)
Net weight 0.7 lbs. (320 gms.)

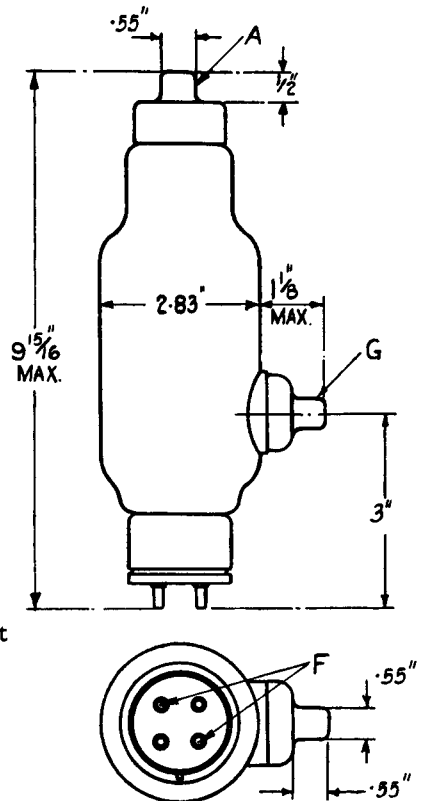
Base.

Large 4-pin bayonet.

Constants.

Filament voltage	10 volts
Filament current	3.4 amps.
*Impedance	3,800 ohms.
*Amplification factor	18
*Mutual conductance	4.75 mA. per volt
Grid-anode capacity	7.3 $\mu\mu\text{F}$.
Grid-filament capacity	8.6 $\mu\mu\text{F}$.
Anode-filament capacity	1.1 $\mu\mu\text{F}$.

* at $V_p = 1,000$ volts, $I_p = 150$ mA.



LIMITING CONDITIONS FOR SAFE OPERATION.

Maximum direct anode voltage	2,500 volts
Maximum anode dissipation	150 watts
Maximum direct anode current	200 mA.
Maximum RF grid current	10 amps.
Maximum frequency for above ratings	20 Mc.
Maximum anode voltage for frequency of 60 Mc.	2,000 volts

Tentative data

W.3C/150-A.1
March 1939

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TYPICAL OPERATING CONDITIONS.

Class B Audio Frequency Amplifier and Modulator for Balanced 2-valve circuit			
Direct anode voltage	2,000	2,500	2,500 volts
Grid bias	—100	—130	—130 volts
Load resistance, anode to anode	11,200	16,000	16,000 ohms
Anode current per valve—zero signal	30	30	30 mA.
max. signal	190	160	180 mA.
Peak AF grid to grid voltage	420	410	460 volts
Max. signal driving power (approx.)	9	2.5	8 watts
Power output (approx.)	500	500	600 watts

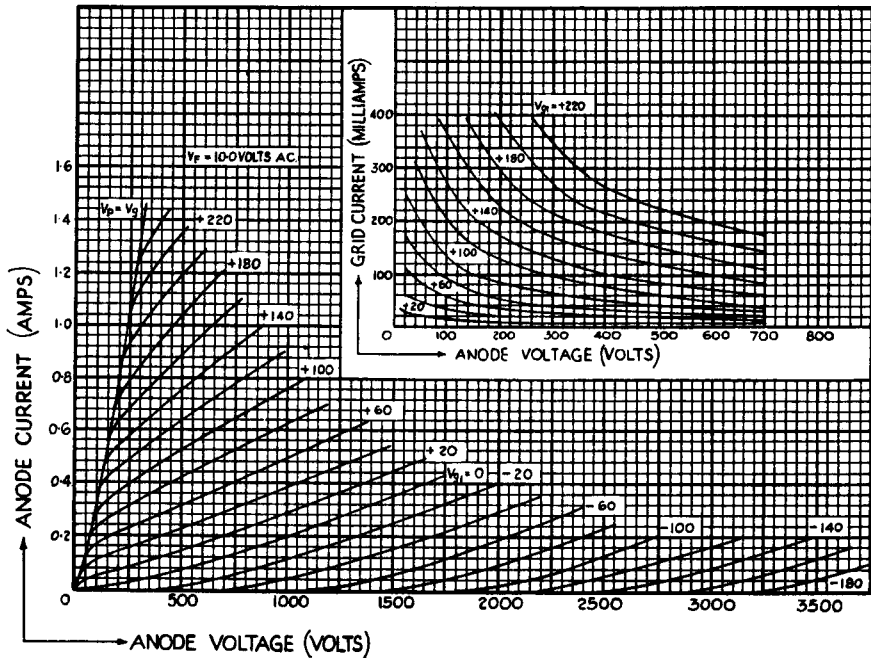
Class B Telephony. RF. Power Amplifier		
Direct anode voltage	2,000	2,500 volts
Grid bias	—110	—140 volts
Peak RF grid voltage	125	150 volts
Direct anode current	110	90 mA.
Direct grid current (approx.)	0.5	0 mA.
Anode dissipation	140	145 watts
Approx. driving power at peak of modulation	6	4 watts
Power output (approx.)	80	80 watts

Class C Telephony—Subject to anode modulation		
Direct anode voltage	1,750	2,000 volts
Grid bias—total	—300	—350 volts
fixed	—75	—100 volts
grid resistor	7,500	12,500 ohms
Peak RF grid voltage	475	500 volts
Direct anode current	200	160 mA.
Anode input	350	320 watts
Direct grid current (approx.)	30	20 mA.
Anode dissipation	80	70 watts
Driving power (approx.)	14	9 watts
Power output (approx.)	270	250 watts
Max. frequency limit for above operation	30	30 Mc.

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Class C Telegraphy—Unmodulated

Direct anode voltage	2,000	2,500 volts
Grid bias	—250	—300 volts
Peak RF grid voltage	410	455 volts
Direct anode current	200	200 mA.
Direct grid current (approx.)	23	18 mA.
Anode dissipation	100	120 watts
Driving power (approx.)	9	8 watts
Output power (approx.)	300	380 watts



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