

—Standard Valves—

4251-AX
Valve

4251-AX VALVE

TRIODE.

SPECIFICATION.

Cathode.

Thoriated tungsten filament.
Constant voltage type.

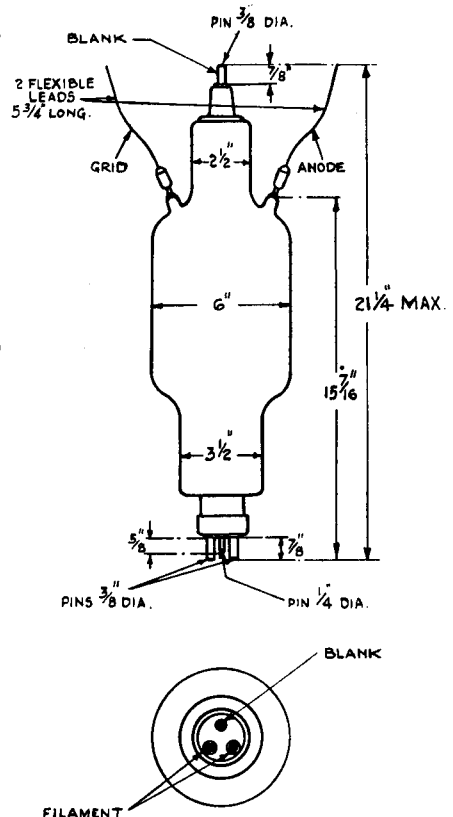
Dimensions.

Max. overall length $21\frac{1}{4}$ " (54 cms.)
Bulb diameter 6" (15.2 cms.)
Net weight $2\frac{3}{4}$ lbs. (1,250 gms.)

Constants.

Filament voltage 10 volts
Nominal filament current 16 amps.
Total emission 6 amps.
*Impedance 2,750 ohms
*Amplification factor 10.5
*Mutual conductance 3.8 mA. per volt.
Grid-anode capacity 8.6 $\mu\mu\text{F}$.
Anode-filament capacity 5.2 $\mu\mu\text{F}$.
Grid-filament capacity 12 $\mu\mu\text{F}$.

* at $V_p = 2,500$ volts, $I_p = 200$ mA.



LIMITING CONDITIONS FOR SAFE OPERATION.

Maximum direct anode voltage	3,000 volts
Maximum direct anode current	0.600 amps.
Maximum anode dissipation	1,000 watts
Maximum grid dissipation	50 watts
Maximum frequency for above ratings	30 Mc.
Maximum anode voltage for frequency of 50 Mc.	2,000 volts

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TYPICAL OPERATING CONDITIONS.

	Class A A.F. Amp. and Mod.	
Direct anode voltage	2,500	2,000 volts
Grid bias	—150	—90 volts
Direct anode current	0.240	0.300 amps.
Load impedance	6,500	4,000 ohms
Undistorted output	130	85 watts

	Class B A.F. Amp. and Mod. For balanced 2 valve circuit	
Direct anode voltage	3,000	2,500 volts
Grid bias	—250	—200 volts
Anode current per valve—zero signal	0.075	0.075 amps.
Anode current per valve—maximum signal	0.600	0.600 amps.
Anode dissipation	800	675 watts
Load resistance—anode to anode	4,500	3,700 ohms
Maximum output—2 valves	2,000	1,650 watts

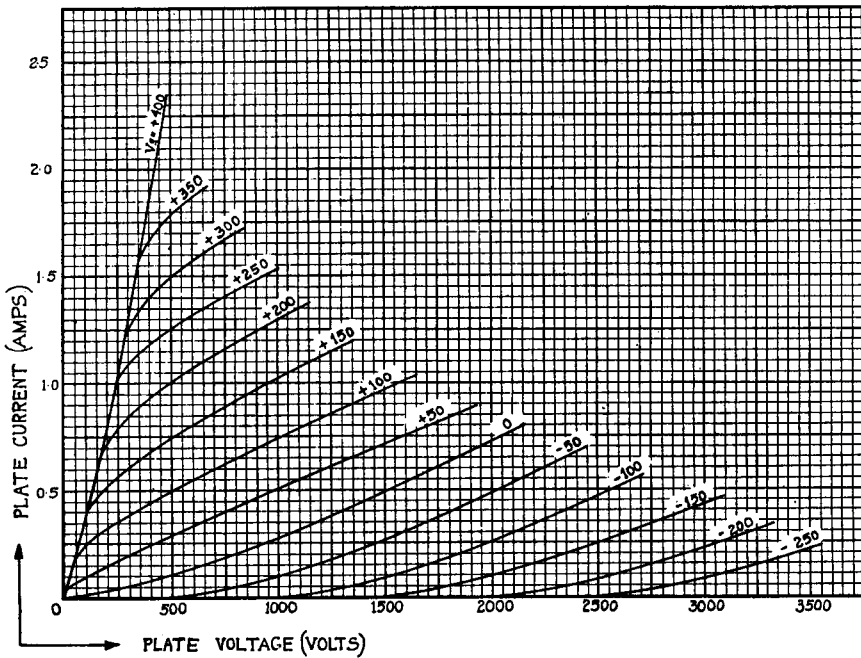
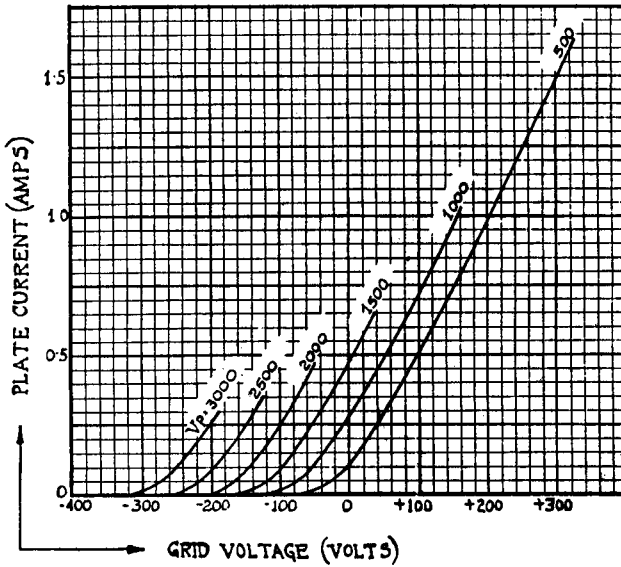
RADIO FREQUENCY OPERATION.

	Class B Telephony		Class C Telephony		Class C Telegraphy	
	Modulated carrier applied to grid		Subject to anode modulation		Unmodulated	
Direct anode voltage	3,000	2,500	2,250	1,750	3,000	2,500 volts
Direct anode current	0.400	0.500	0.400	0.500	0.600	0.600 amps.
Grid bias	—300	—250	—450	—360	—450	—375 to
Carrier output	400	420	600	585	1,200	500 volts
Anode dissipation	800	830	300	290	600	1,000 watts 500 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.



V.4251-AX.2
March, 1939

PRINTED IN
ENGLAND