

—Standard Valves—

4307-A Valve.
-AF Valve.

4307-A AND -AF VALVES

PENTODES.

The 4307-AF Valve is identical to the 4307-A Valve and the -F code indicates that the valve has passed special tests for use in Standard Aircraft Radio.

SPECIFICATION.

Cathode.

Oxide coated filament.
Constant voltage type.

Base.

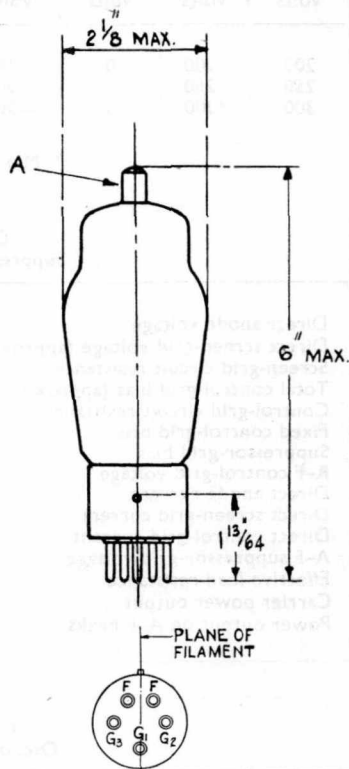
American medium 5-pin.
Anode connected to top cap type B.

Dimensions.

Max. overall length 6" (15.3 cms.)
Max. Diameter $2\frac{1}{8}$ " (5.4 cms.)
Net weight 0.16 lbs. (75 gms.)

Constants.

Filament voltage 5.5 volts
Nominal filament current 1.0 amps.
Grid-anode capacity 0.55 $\mu\mu\text{F}$.
Input capacity 15 $\mu\mu\text{F}$.
Output capacity 12 $\mu\mu\text{F}$.



LIMITING CONDITIONS FOR SAFE OPERATION.

	Class A Amplifier	Class C Amplifier or Oscillator	Class B or Suppressor Mod- ulated Class C Amplifier
Maximum direct anode voltage	500	500	500 volts
Maximum direct screen-grid voltage	300	250	250 volts
Maximum direct anode current	60	60	45 mA.
Maximum direct screen-grid current	25	25	25 mA.
Maximum direct control-grid current	—	7	7 mA.
Maximum anode dissipation	15	15	15 watts
Maximum screen-grid dissipation	6	6	6 watts
Maximum instantaneous control-grid voltage on positive swing of input	—	+30	+30 volts

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TYPICAL OPERATING CONDITIONS.

Anode voltage	Screen Grid voltage	Suppressor voltage	Control grid bias	Anode current	Screen grid current	Load resistance	Maximum power output	Maximum second harmonic
volts	volts	volts	volts	mA.	mA.	ohms	watts	db
200	200	0	—15	36.5	3.4	4,000	2.9	23.5
250	250	0	—20	50	4.0	4,000	5.7	24
300	*300	0	—30	43	2.6	4,500	9.1	21

* Maximum operating condition.

Class C Telephony. Suppressor modulated R.F. Amp.

Direct anode voltage	500 volts
Direct screen-grid voltage (approx.)	200 volts
Screen-grid circuit resistance	14,000 ohms
Total control-grid bias (approx.)	—35 volts
Control-grid circuit resistance	10,000 ohms
Fixed control-grid bias	—20 volts
Suppressor-grid bias	—50 volts
R-F control-grid voltage	50 peak volts
Direct anode current	40 milliamperes
Direct screen-grid current	20 milliamperes
Direct control-grid current	1.5 milliamperes
A-F suppressor-grid voltage	50 peak volts
Effective load resistance	4,000 ohms
Carrier power output	6 watts
Power output on A-F peaks	24 watts

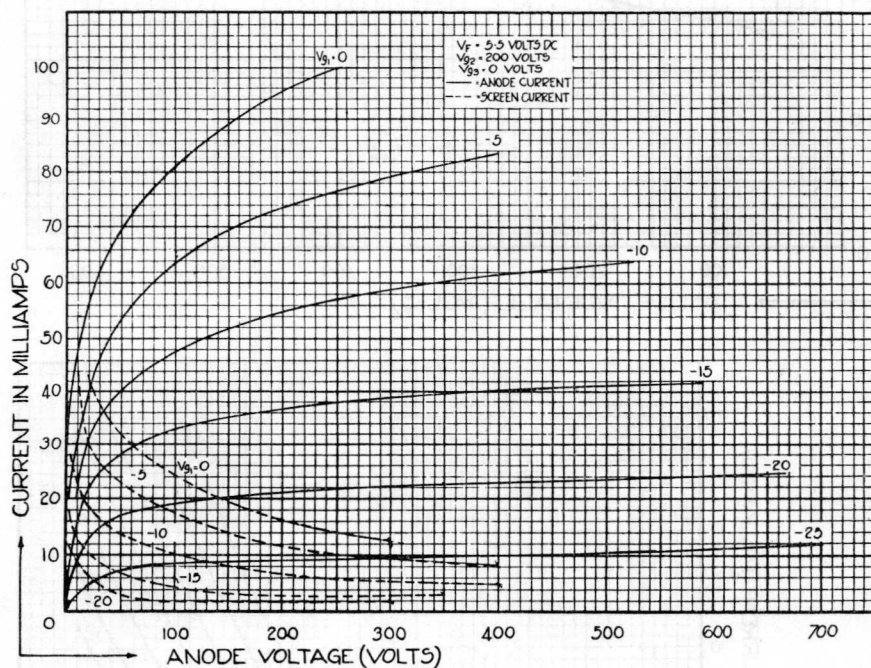
Class C Telegraphy Osc. or RF amp. unmodulated.

Direct anode voltage	500	500 volts
Direct screen-grid voltage (approx)	250	250 volts
Screen-grid circuit resistance	20,000	20,000 ohms
Total control-grid bias (approx)	—35	—35 volts
Control-grid circuit resistance	10,000	10,000 ohms
Fixed control-grid bias	—20	—20 volts
Suppressor-grid bias	0	0 volts
R-F control-grid voltage	50	50 peak volts
Direct anode-current	45	60 mA.
Direct screen-grid current	12	13 mA.
Direct control-grid current	1.3	1.4 mA.
A-F suppressor-grid voltage	0	0 peak volts
Effective load resistance	6,500	5,000 ohms
Carrier power output	15	20 watts

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High Frequency Ratings		
	40 megacycles	70 megacycles
Maximum direct anode voltage	500	300 volts
Maximum direct anode current— For class C telegraphy (intermittent) For all other classes of service	60 45	45 mA. 45 mA.



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