

—Standard Valves—

5B/300-B
5B/300-BF

VALVE TYPES 5B/300-B AND 5B/300-BF

RF. PENTODES.

The 5B/300-B and 5B/300-BF Valves are identical and the -F code indicates that the valve has passed special tests for use in Standard Aircraft Radio.

SPECIFICATION.

Cathode.

Indirectly heated oxide coated.
Constant voltage type.

Base.

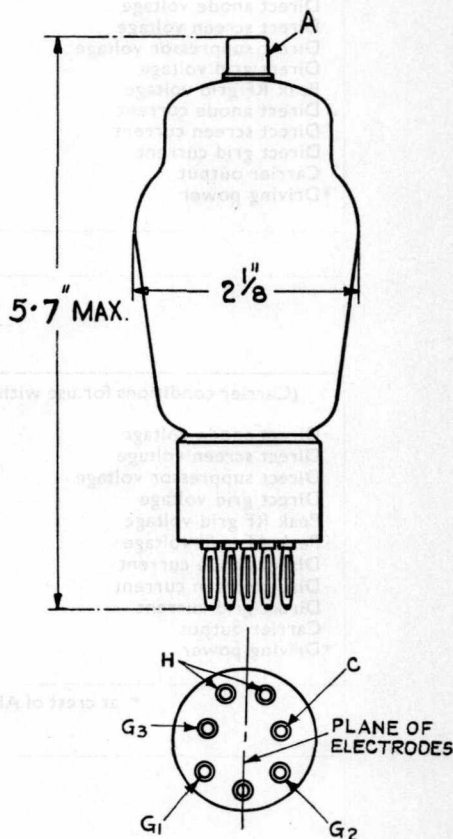
Standard British 7-pin.
Anode connected to top cap type B.

Dimensions.

Maximum overall length 5.7" (14.5 cms.)
Bulb diameter $2\frac{1}{8}$ " (5.4 cms.)
Net weight 0.145 lbs. (66 gms.)

Constants.

Heater voltage 10 volts
Nominal heater current 0.80 amps.
*Mutual conductance 6 mA. per volt
Grid-anode capacity $1.2 \mu\mu\text{F.}$
Input capacity $16 \mu\mu\text{F.}$
Output capacity $8 \mu\mu\text{F.}$
* at $V_p = 500$, $V_{g_2} = 250$, $V_{g_1} = -8$,
 $V_{g_3} = 0$ volts.



LIMITING CONDITIONS FOR SAFE OPERATION.

Maximum direct anode voltage	500 volts
Maximum direct screen voltage	300 volts
Maximum direct anode current	60 mA.
Maximum direct screen current	25 mA.
Maximum anode dissipation	30 watts
Maximum screen dissipation	6 watts
Maximum frequency for above ratings	40 Mc.
Maximum anode voltage for frequency of 70 Mc.	300 volts

Tentative data

W.5B/300-B.1
April 1939

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TYPICAL OPERATING CONDITIONS.

Grid Modulated RF Power Amplifier Class B Telephony	
(Carrier conditions for use with mod. factor of 1.0)	
Direct anode voltage	500 volts
Direct screen voltage	250 volts
Direct suppressor voltage	0 volts
Direct grid voltage	—20 volts
Peak RF grid voltage	22 volts
Direct anode current	35 mA.
Direct screen current	6 mA.
Direct grid current	1 mA.
Carrier output	4.8 watts
*Driving power	0.3 watts

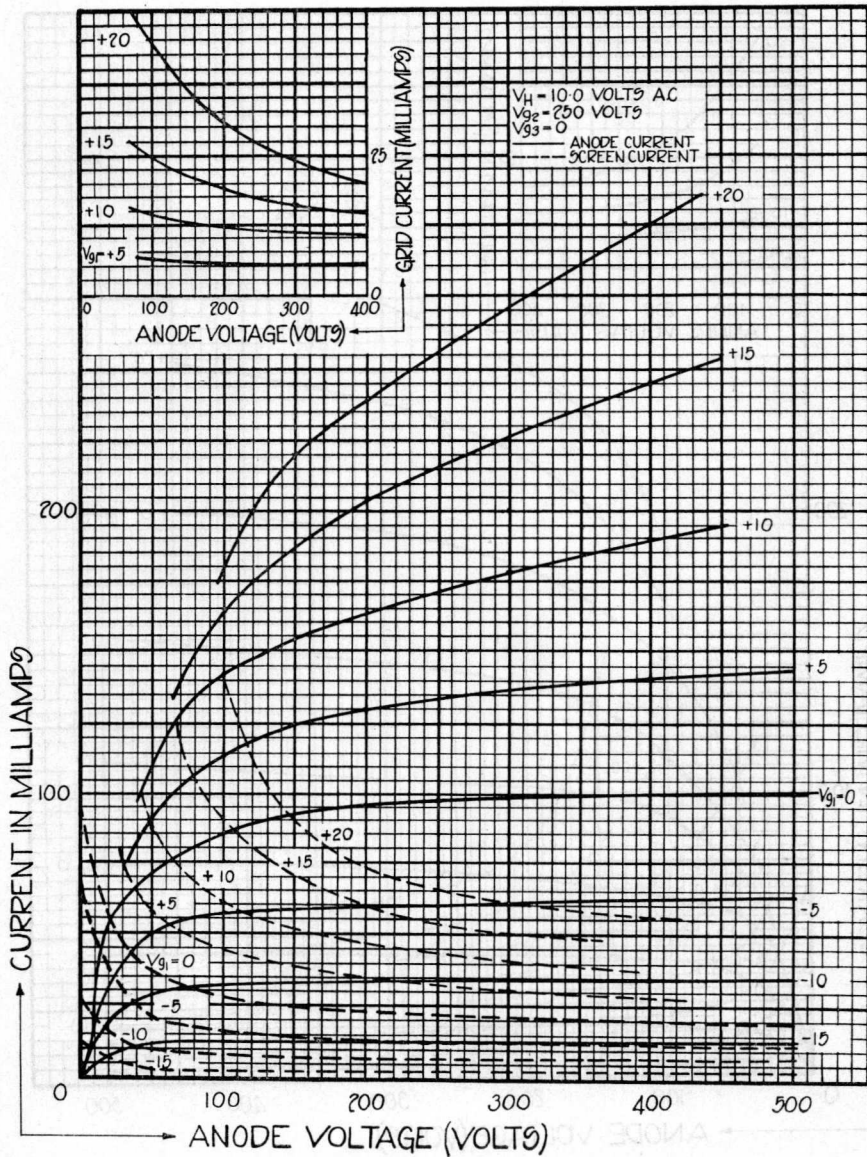
Grid Modulated RF Power Amplifier Class C Telephony	
(Carrier conditions for use with mod. factor of 1.0)	
Direct anode voltage	500 volts
Direct screen voltage	250 volts
Direct suppressor voltage	0 volts
Direct grid voltage	—70 volts
Peak RF grid voltage	77 volts
Peak AF grid voltage	27 volts
Direct anode current	35 mA.
Direct screen current	7 mA.
Direct grid current	1.5 mA.
Carrier output	5 watts
*Driving power	0.7 watts

* at crest of AF cycle with modulation factor of 1.0.

RF Power Amplifier or Oscillator Class C Telephony	
Direct anode voltage	500 volts
Direct screen voltage	250 volts
Direct suppressor voltage	0 volts
Direct grid voltage	—50 volts
Peak RF grid voltage	75 volts
Direct anode current	60 mA.
Direct screen current	22 mA.
Direct grid current	10 mA.
Power output	18 watts
Driving power	0.7 watts

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