

—Standard Valves—

5D/100-A

VALVE TYPE 5D/100-A

RF POWER PENTODE.

SPECIFICATION.

Cathode.

Thoriated tungsten filament.
Constant voltage type.

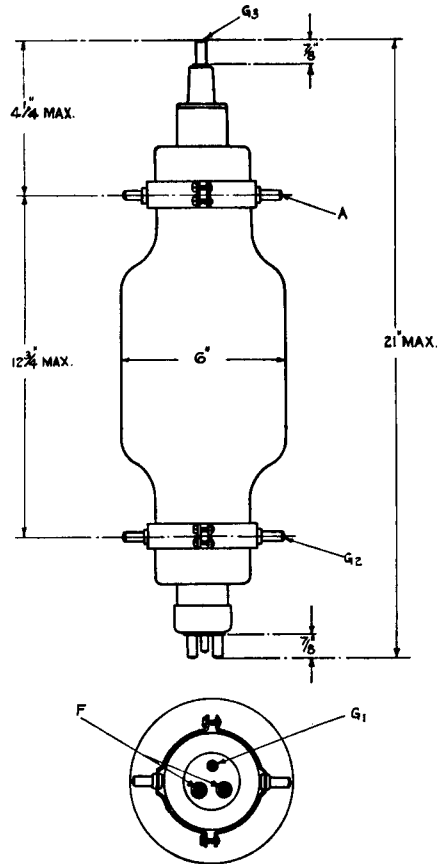
Dimensions.

Max. overall length 21" (53.3 cm.)
Bulb diameter 6" (15.2 cm.)
Net weight 3.65 lb. (1,650 gms.)

Constants.

Filament voltage 10 volts
Nominal filament current 16 amps.
Total emission 6 amps.
*Mutual conductance 4.5 mA. per volt
Grid-anode capacity 0.1 $\mu\mu\text{F}$
Input capacity 42 $\mu\mu\text{F}$
Output capacity 32.8 $\mu\mu\text{F}$.

* at $V_p = 3,000$, $V_{g_2} = 800$, $V_{g_3} = 0$.
 $V_{g_1} = -21$ volts.



LIMITING CONDITIONS FOR SAFE OPERATION.

Maximum direct anode voltage	3,000 volts
Maximum anode dissipation	1,000 watts
Maximum direct screen grid voltage	850 volts
Maximum direct screen grid dissipation	250 watts
Maximum frequency for above ratings	10 Mc.
Maximum direct anode voltage for frequency of 20 Mc.	2,500 volts

For higher frequencies the anode voltage should be reduced proportionately.

Tentative data

W.5D/100-A.1
March, 1939

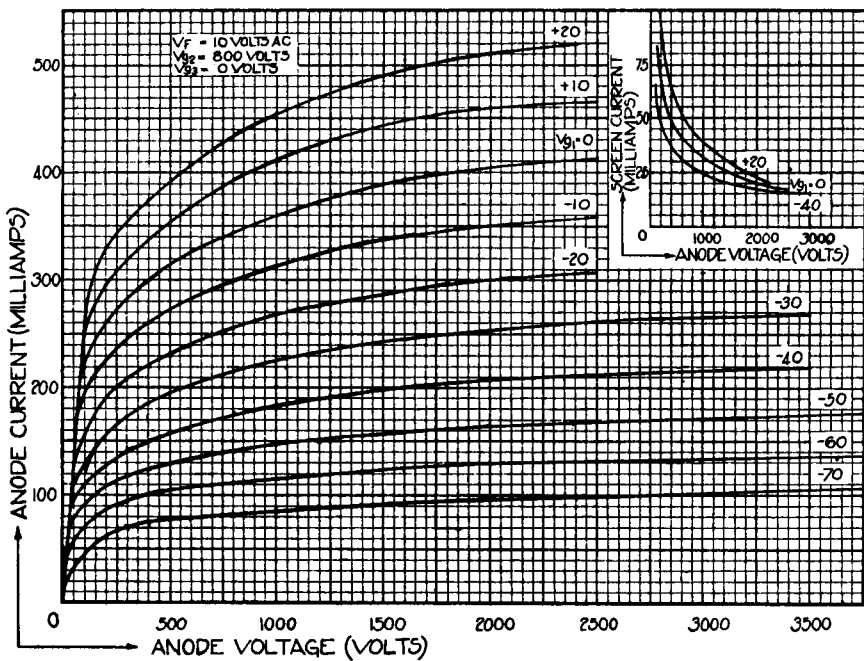
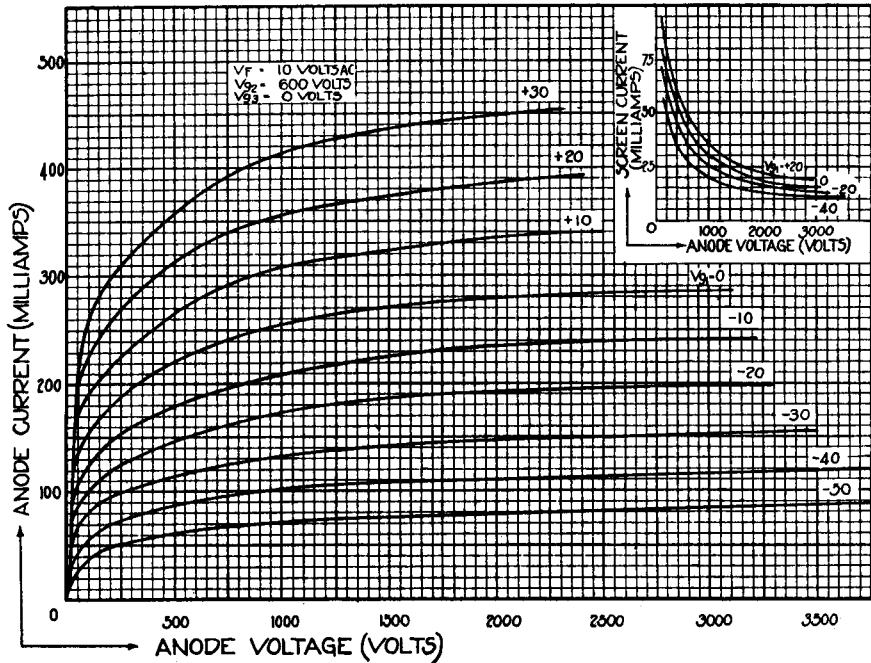
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TYPICAL OPERATING CONDITIONS.

	Class C Amplifier Unmodulated	
Anode voltage	2,500	3,000 volts
Screen supply voltage	850	950 volts
Screen resistor	2,500	2,500 ohms
Suppressor voltage	200	200 volts
Grid voltage :—		
Grid leak	6,700	3,700 ohms
Fixed bias	—40	—40 volts
Total	—540	—390 volts
Grid current	75	94 mA.
Screen current	120	140 mA.
Anode current	540	650 mA.
Output power	1,000	1,300 watts
Efficiency	77	67 per cent.
Frequency	10	10 Mc.

	Class C Amplifier—Suppressor Modulated (Distortion less than 5% at 80% modulation)
Anode voltage	3,000 volts
Screen supply voltage	950 volts
Screen resistor	2,500 ohms
Grid voltage :—	
Grid leak	3,700 ohms
Fixed bias	—40 volts
Total	—390 volts
Suppressor voltage	—50 volts
Grid current	95 mA.
Screen current	190 mA.
Anode current	450 mA.
Carrier output	400 watts

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Tentative data
 HF 13

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