

—Standard Valves—

5D/100-A

VALVE TYPE 5D/100-A

RF POWER PENTODE.

SPECIFICATION.

Cathode.

Thoriated tungsten filament.

Constant voltage type.

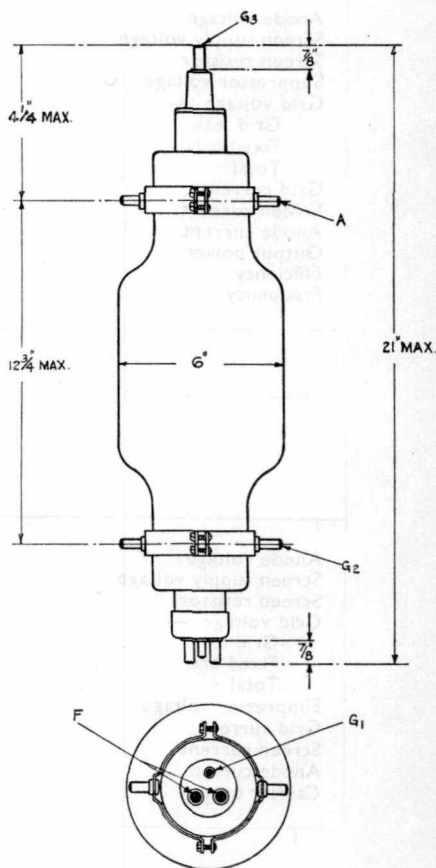
Dimensions.

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

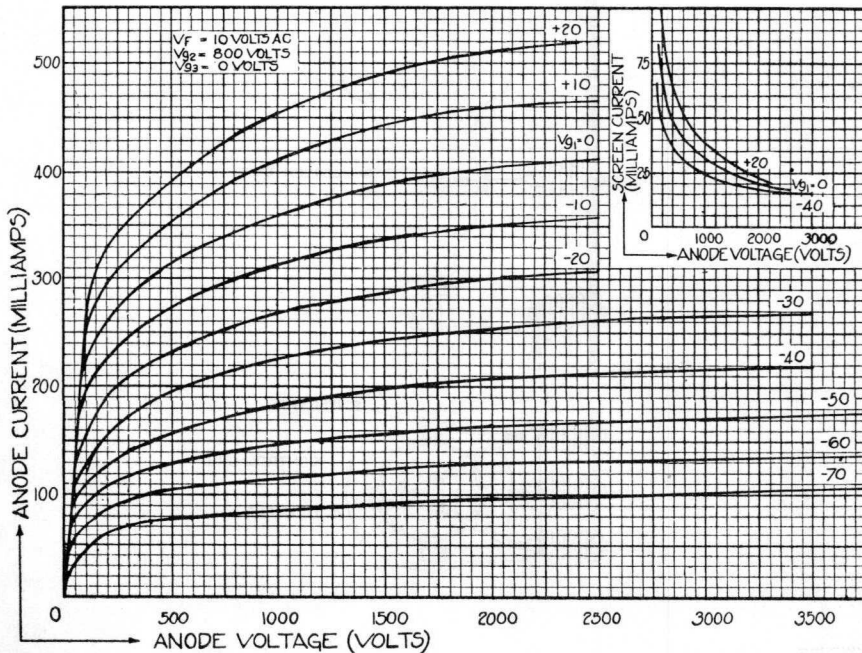
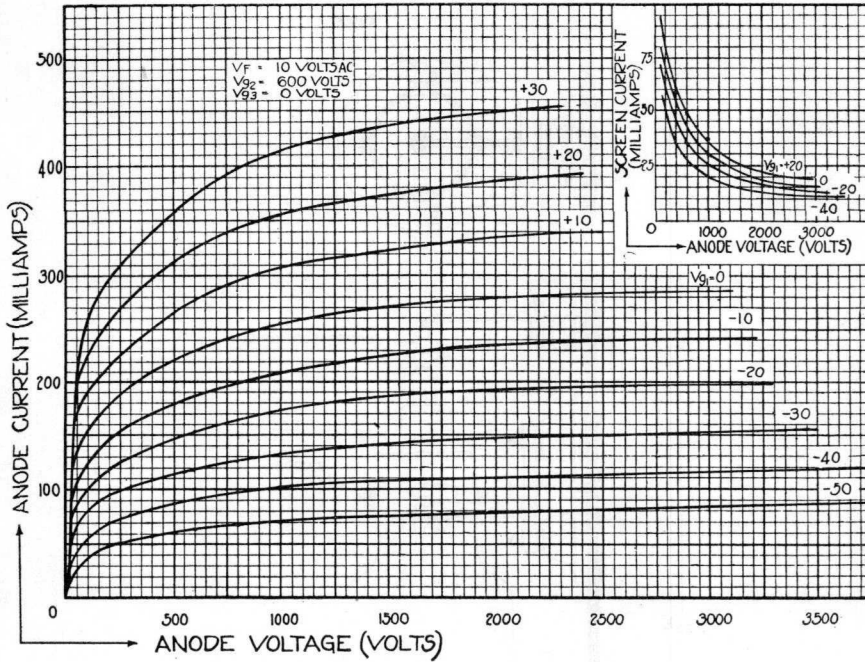
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TYPICAL OPERATING CONDITIONS.

	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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