

# —Standard Valves—

## VALVE TYPE 5A/102-A

(previously coded VLS.452).

OUTPUT PENTODE.

### SPECIFICATION.

#### Cathode.

Indirectly heated oxide coated.  
Constant current type.

#### Base.

American medium 6-pin—Control grid connected to top cap type B.

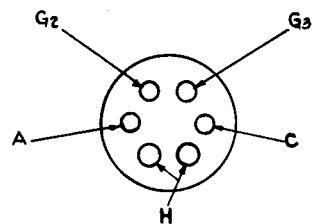
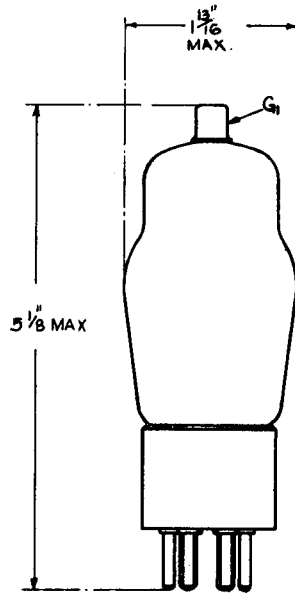
#### Dimensions.

Max. overall length  $5\frac{1}{8}$ " (13 cms.)  
Max. diameter  $1\frac{13}{16}$ " (4.6 cms.)  
Net weight 0.11 lbs. (50 gms.)

#### Constants.

Nominal heater voltage 7.5 volts  
Heater current 0.85 amps.  
\*Amplification factor 110  
\*Impedance 43,000 ohms  
\*Mutual conductance 2.5 mA. per volt  
Grid-anode capacity 0.5  $\mu\mu\text{F}$ .  
Input capacity 6.8  $\mu\mu\text{F}$ .  
Output capacity 9  $\mu\mu\text{F}$ .

\* at  $V_p = 180$   $V_{g_2} = 150$ ,  $V_{g_1} = -18$  volts.



### LIMITING CONDITIONS FOR SAFE OPERATION.

Maximum direct anode voltage	180 volts
Maximum direct anode current	50 mA.
Maximum direct screen voltage	150 volts
Maximum direct screen current	10 mA.
Maximum control grid resistance (using auto-bias).	500,000 ohms

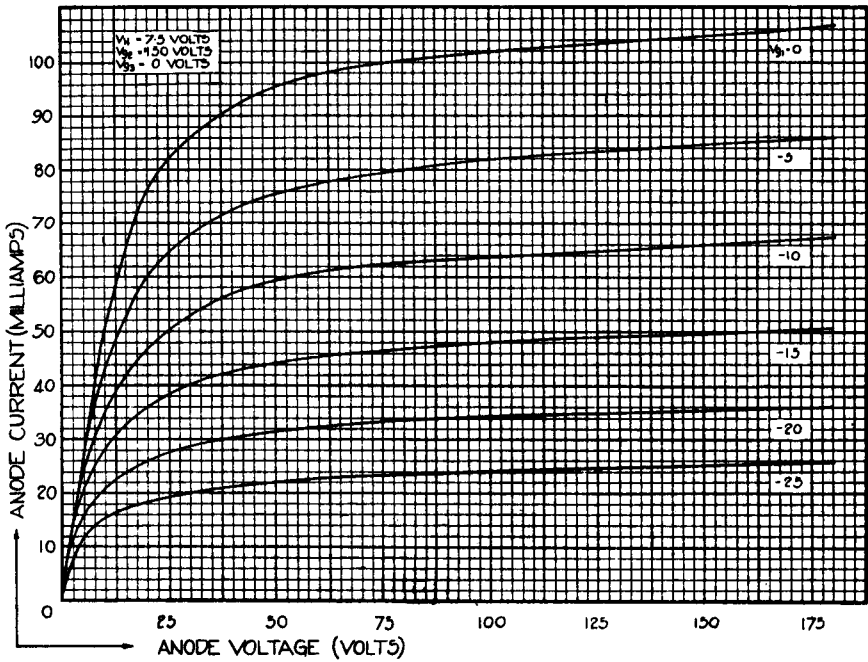
Tentative data

W.5A/102-A.1  
March, 1939

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## TYPICAL OPERATING CONDITIONS.

Anode voltage	180 volts
Control grid voltage	—18 volts
Screen voltage	150 volts
Suppressor voltage	0 volts
Load resistance	4,000 ohms
Output—mW.	50 100 250 500 750 1,000
Total harmonics, db below fundamental	34 31 28 26 25 24



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