

# —Standard Valves—

## VALVE TYPE 3A/101-B

(Previously coded VLS.350 valve).

TRIODE.

### SPECIFICATION.

#### Cathode.

Indirectly heated oxide coated.  
Constant current type.

#### Base.

Standard British 5-pin.

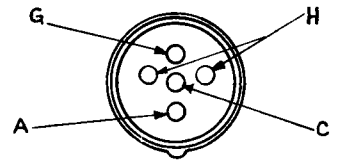
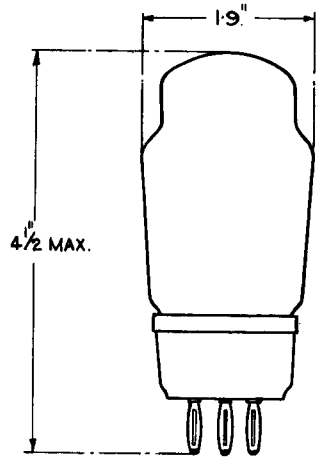
#### Dimensions.

Maximum overall length  $4\frac{1}{2}$ " (11.4 cms.)  
Bulb diameter 1.9" (4.9 cms.)  
Net weight 0.11 lb. (50 gms.)

#### Constants.

Heater current 1.0 amps.  
Nominal heater voltage 4.5 volts  
\*Impedance 5,700 ohms.  
\*Amplification factor 5.8  
\*Mutual conductance 1.0 mA per volt  
Anode-grid capacity  $4.2 \mu\mu\text{F.}$   
Grid-cathode capacity  $4.2 \mu\mu\text{F.}$   
Anode-cathode capacity  $4.4 \mu\mu\text{F.}$

\* at  $V_p = 130$  volts,  $V_g = -9$  volts.



### LIMITING CONDITIONS FOR SAFE OPERATION.

Maximum direct anode voltage 200 volts  
Maximum anode dissipation 5 watts

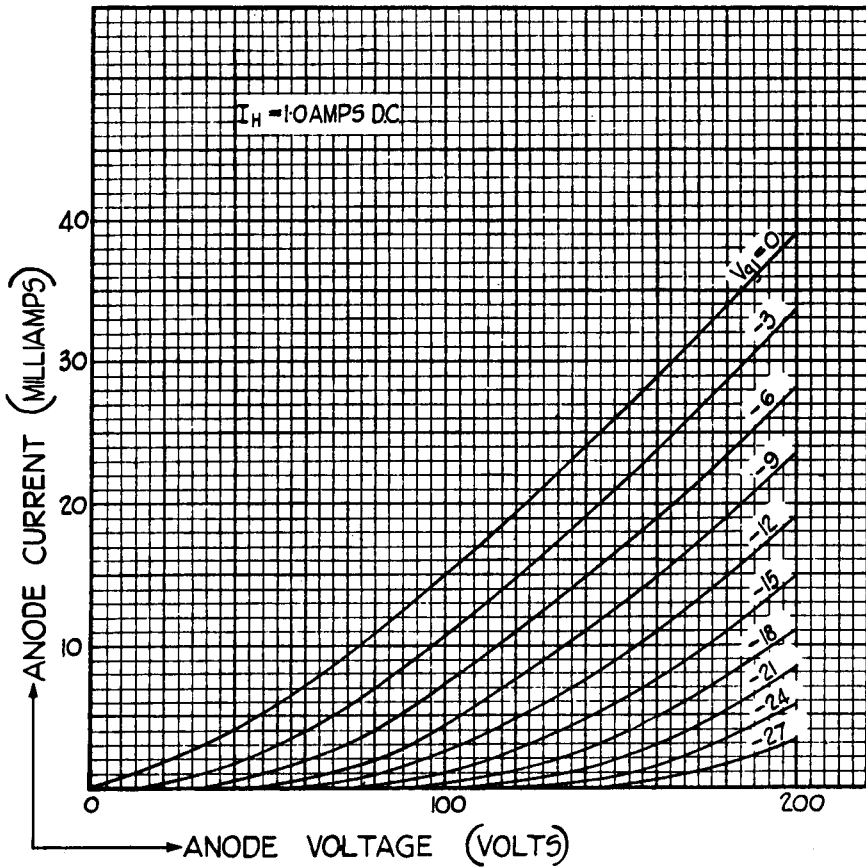
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**TYPICAL OPERATING CONDITIONS.**

|   |                |       |       |       |       |       |       |       |       |       |       |
|---|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Anode voltage   | volts          | 100   | 100   | 130   | 130   | 130   | 160   | 160   | 160   | 190   | 190   |
| Grid bias   | volts          | -4    | -6    | -9    | -12   | -10   | -12   | -16   | -16   | -18   | -20   |
| Anode current   | mA.            | 10    | 7.2   | 13    | 9.5   | 6.2   | 14    | 11    | 6.8   | 12    | 8     |
| Anode resistance  | Z <sub>o</sub> | 5,000 | 6,400 | 5,000 | 5,700 | 6,500 | 5,000 | 6,500 | 5,500 | 5,000 | 6,000 |
| <b>For load resistance, R<sub>L</sub> = Z<sub>o</sub></b>   |                |       |       |       |       |       |       |       |       |       |       |
| Output  | mW.            | 14    | 26    | 35    | 65    | 90    | 100   | 175   | 130   | 235   | 285   |
| Total harmonic distortion                                   | db             | 38    | 29    | 35    | 29    | 22    | 30    | 20    | 22    | 20    | 18    |
| <b>For load resistance, R<sub>L</sub> = 2 Z<sub>o</sub></b> |                |       |       |       |       |       |       |       |       |       |       |
| Output  | mW.            | 12    | 24    | 30    | 60    | 80    | 90    | 155   | 115   | 210   | 250   |
| Total harmonic distortion                                   | db.            | 35    | 35    | 37    | 32    | 26    | 33    | 23    | 28    | 27    | 22    |

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Tentative data

W.3A/101-B.2  
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