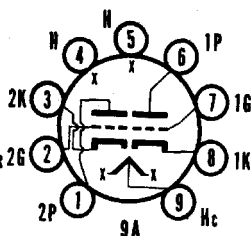




# SYLVANIA TYPE 12DW7 AF AMPLIFIER AND PHASE INVERTER



## MECHANICAL DATA

|                        |                          |
|------------------------|--------------------------|
| Bulb.....              | T-6 1/2                  |
| Base.....              | E9-1, Small Button 9-Pin |
| Outline.....           | 6-2                      |
| Basing.....            | 9A                       |
| Cathode.....           | Coated Unipotential      |
| Mounting Position..... | Any                      |

## ELECTRICAL DATA

### HEATER CHARACTERISTICS

|                                                |                |
|------------------------------------------------|----------------|
| Heater Voltage Series/Parallel.....            | 12.6/6.3 Volts |
| Heater Current Series/Parallel.....            | 150/300 Ma     |
| Heater-Cathode Voltage (Design Maximum Values) |                |
| Heater Negative with Respect to Cathode        |                |
| Total D C and Peak.....                        | 200 Volts Max. |
| Heater Positive with Respect to Cathode        |                |
| D C.....                                       | 100 Volts Max. |
| Total D C and Peak.....                        | 200 Volts Max. |

### DIRECT INTERELECTRODE CAPACITANCES

|                         | Section No. 1 <sup>1</sup> |            | Section No. 2 <sup>1</sup> |             |
|-------------------------|----------------------------|------------|----------------------------|-------------|
|                         | Shielded <sup>2</sup>      | Unshielded | Shielded <sup>2</sup>      | Unshielded  |
| Grid to Plate.....      | 1.7                        | 1.7        | 1.5                        | 1.5 $\mu$ f |
| Input: g to (h+k).....  | 1.8                        | 1.6        | 1.8                        | 1.7 $\mu$ f |
| Output: p to (h+k)..... | 2.0                        | 0.44       | 2.4                        | 0.4 $\mu$ f |

### RATINGS (Design Maximum System)

|                                | Section No. 1 | Section No. 2    |
|--------------------------------|---------------|------------------|
| Plate Voltage.....             | 330           | 330 Volts Max.   |
| Plate Dissipation.....         | 1.2           | 3.3 Watts Max.   |
| Cathode Current.....           | 0             | 22 Ma Max.       |
| Positive D C Grid Voltage..... | 55            | ... Volts Max.   |
| Negative D C Grid Voltage..... |               | ... Volts Max.   |
| Grid Circuit Resistance        |               |                  |
| Fixed Bias.....                |               | 0.25 Megohm Max. |
| Self Bias.....                 |               | 1.0 Megohm Max.  |

### CHARACTERISTICS AND TYPICAL OPERATION

| Class A1 Amplifier              | Section No. 1 |        | Section No. 2 |                 |
|---------------------------------|---------------|--------|---------------|-----------------|
| Plate Voltage.....              | 100           | 250    | 100           | 250 Volts       |
| Grid Voltage.....               | -1            | -2     | 0             | -8.5 Volts      |
| Plate Current.....              | 0.5           | 1.2    | 11.8          | 10.5 Ma         |
| Transconductance....            | 1250          | 1600   | 3100          | 2200 $\mu$ mhos |
| Amplification Factor..          | 100           | 100    | 20            | 17              |
| Plate Resistance....            | 80,000        | 62,500 | 6500          | 7700 Ohms       |
| Ec1 for Ib = 10 $\mu$ amps..... |               |        |               | -24 Volts       |

### NOTES:

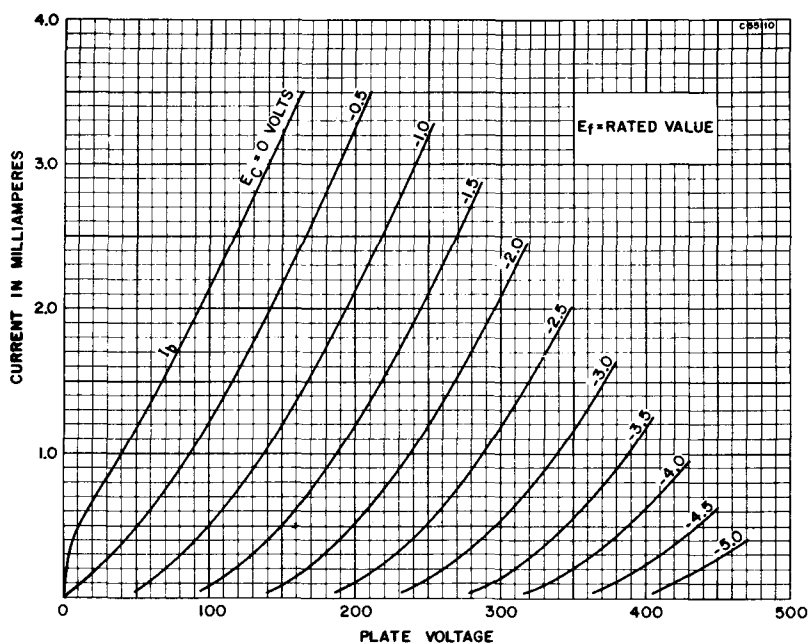
1. Section No. 1 connects to Pins 6, 7 and 8.  
Section No. 2 connects to Pins 1, 2 and 3.
2. External shield No. 315 connected to cathode of section under test.

## APPLICATION

The Sylvania Type 12DW7 contains two dissimilar triodes. The high mu triode is similar to Type 12AX7 and the medium mu triode is similar to Type 12AU7. Type 12DW7 is especially suitable for applications requiring a high gain voltage amplifier and a cathodyne type phase-inverter.

# SYLVANIA TYPE 12DW7 (Cont'd)

## AVERAGE PLATE CHARACTERISTICS (Section No. 1)



## AVERAGE PLATE CHARACTERISTICS (Section No.2)

