Sylvania

TYPE 12A5

POWER AMPLIFIER

CHARACTERISTICS

Heater Voltage	6.3	12.6 Volts
Heater Current	0.6	0.3 Ampere
Maximum Over-all Length		$4\frac{1}{4}$"
Maximum Diameter		$1\frac{9}{16}$"
Bulb		ST-12
Base—Small 7-Pin		7-F

Operating Conditions and Characteristics:

Heater Voltage	12.6	6.3 Volts
Plate Voltage	100	180 Volts
Grid Voltage	−15	−27 Volts
Screen Voltage	100	180 Volts
Plate Current	17	36 Ma.
Screen Current	3	6 Ma.
Plate Resistance	35000	32000 Ohms
Mutual Conductance	1900	2500 μmhos
Amplification Factor	70	80
Load Resistance	4500	3800 Ohms
Power Output	0.85	3.5 Watts

CIRCUIT APPLICATION

Sylvania 12A5 is a dual purpose output pentode. The heater voltage and output power when operated from 115 volt supply is intermediate between Type 38 and Type 43 pentodes. In AC-DC receivers the heaters are series connected for 12.6 volt, 0.3 ampere operation. This tube may also be used for a-c sets or automobile receivers in which case the heaters are connected in parallel and draw 0.6 ampere at 6.3 volts.

With a 200 volt B supply, 2.7 watts output may be obtained with a total cathode current of 44 ma. In the case of automobile receivers where economy of operation is essential, the load impedance and bias are increased somewhat giving a total output of 2.2 watts with a total cathode current of only 36 ma. The load impedance values recommended for each case are shown under operating conditions and characteristics.

In all cases it is recommended that the d-c resistance in the grid circuit be kept below 500,000 ohms. If the tube is self-biased, however, this value may be increased to a maximum of 1 megohm.