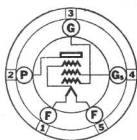


Sylvania

TYPE 6A4/LA

POWER AMPLIFIER

PENTODE



CHARACTERISTICS

Filament Voltage AC or DC	6.3 Volts
Filament Current	0.3 Ampere
Maximum Over-all Length	4 11/16"
Maximum Diameter	1 11/16"
Bulb	ST-14
Base—Medium 5-Pin	5-B

Operating Conditions and Characteristics:

Filament Voltage	6.3	6.3	6.3	6.3 Volts
Plate Voltage	100	135	165	180 Volts Max.
Grid Voltage*	-6.5	-9	-11	-12 Volts
Screen Voltage	100	135	165	180 Volts Max.
Plate Current	7.5	13	19	22 Ma.
Screen Current	1.6	2.8	3.9	4.5 Ma.
Plate Resistance (Approx.)	83250	52600	48000	60000 Ohms
Mutual Conductance	1700	2100	2400	2500 μ mhos
Amplification Factor (Approx.)	150	150	150	150
Load Resistance	11000	9500	8000	8000 Ohms
Power Output**	0.3	0.7	1.2	1.5 Watts

*Grid volts measured from negative end of d-c operated filament. If the filament is a-c operated, the tabulated values of grid bias should each be increased by 4.0 volts and be referred to the mid-point of the filament.

**9% total harmonic distortion.

CIRCUIT APPLICATION

Sylvania 6A4/LA is a 6.3 volt filament type output pentode designed especially for d-c service, particularly in automobile receivers since the A-battery drain for the filament is only 0.3 ampere. It may be used either singly or in a push-pull arrangement, depending on the output desired. The latter system will give more economical operation with less distortion using greater than normal self-bias. The total power is somewhat less, but by proper choice of bias and load impedance the second and third harmonics become low.

Transformer or impedance inter-stage coupling arrangements are recommended. In case it is desired to use resistance coupling the grid resistor should not be greater than 0.5 megohm.

It should be noted that the maximum plate voltage is 180 volts. Most automobile radios are now designed for 250 volt operation, so that better performance can be secured by employing either Type 41's or Type 42's. These are cathode type output pentodes and are especially adaptable to automobile receivers since the heaters are designed to operate directly from a 6 volt storage battery despite the voltage fluctuations occurring during the charge and discharge periods. In contrast to this feature, filament type tubes require a steady voltage supply to insure satisfactory performance.