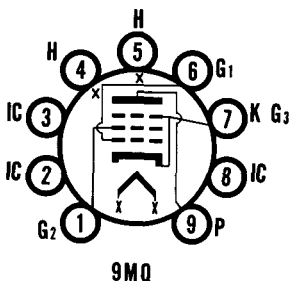


SYLVANIA TYPES 7754 7695 **BEAM POWER AMPLIFIER**



The 9-T9 design utilizes a T-9 (1 $\frac{1}{8}$ " Dia.) bulb based to fit a standard 9-pin miniature socket. Advantages of the 9-T9 include an increase in the heat dissipation safety margin, as compared to 9-pin miniature tubes employing T-6 $\frac{1}{2}$ ($\frac{13}{16}$ " Dia.) bulbs.

MECHANICAL DATA

Bulb.....	Special, T-9
Base.....	9-Pin, Same as E9-1, except Bulb Diameter
Outline.....	See Drawing
Basing.....	9MQ
Cathode.....	Coated Unipotential
Mounting Position.....	Anv

ELECTRICAL DATA

HEATER CHARACTERISTICS	7754	7695
Heater Voltage.....	6.3	50 Volts
Heater Current ¹	1200	150 Ma
Maximum Heater Current Range ²	140-160	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 (approx.)

Grid No. 1 to Plate.....	0.75 μ f
Input: g1 to (h+k, g3+g2).....	14 μ f
Output: p to (h+k, g3+g2).....	9 μ f

RATINGS (Design Maximum Values)

Plate Voltage.....	150 Volts Max.
Grid No. 2 Voltage.....	150 Volts Max.
Plate Dissipation.....	16 Watts Max.
Grid No. 2 Dissipation.....	2.5 Watts Max.
Grid No. 1 Circuit Resistance	
Fixed Bias.....	0.1 Megohm Max.
Cathode Bias.....	0.5 Megohm Max.

CHARACTERISTICS AND TYPICAL OPERATION

	Class AB1 Push-Pull		Class A1 Single Tube	
Plate Voltage.....	130	140	130	140 Volts
Grid No. 2 Voltage.....	130	140	130	140 Volts
Grid No. 1 Voltage.....	-12	—	-11	— Volts
Cathode Resistor.....	—	50	—	100 Ohms
Peak AF Grid No. 1 Voltage...	11.3	11.3	11	11.3 Volts
Zero Sig. Plate Current.....	195	210	100	100 Ma
Max. Sig. Plate Current.....	220	210	108	100 Ma
Zero Sig. Grid No. 2 Current...	9	9	5	5 Ma
Max. Sig. Grid No. 2 Current...	24	20	15	14 Ma
Transconductance.....	—	—	11,000	— μ mhos
Plate Resistance (approx.).....	—	—	7000	— Ohms
Load Resistance.....	—	—	1100	1100 Ohms
Load Resistance (P1 to P1)...	1800	1500	—	—
Max. Signal Power Output.....	10	10	4.5	4.5 Watts
Total Harmonic Distortion.....	6	4	11	11 Percent

SINGLE ENDED PUSH-PULL, CLASS A

TRANSFORMERLESS OPERATION (See Circuit and Curve)

Supply Voltage.....	280 Volts
Plate Load Resistance.....	500 Ohms
Grid No. 2 Resistors (Rc2).....	4000 Ohms
Peak AF Grid No. 1 Voltage.....	10.5 Volts
Power Output.....	5 Watts
Distortion.....	10 Percent

NOTES:

1. For series heater operation, equipment should be so designed so that at normal supply voltage bogey tubes will operate at this value of heater current.
2. Design Maximum Values.

SYLVANIA TYPES 7754, 7695 (Cont'd)

APPLICATION

The Sylvania Type 7695, beam power pentode, features remarkably high power sensitivity as an audio power amplifier. In Class A1 operation, it can deliver 4.5 watts of power with a B+ voltage of only 130 volts. As a result, the 7695-7754 makes possible economies in power supply requirements.

Single Ended Push Pull
Circuit

