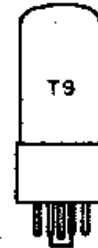
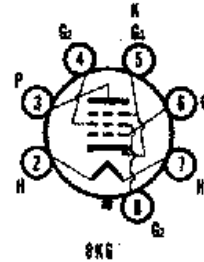


7591A

AUDIO POWER AMPLIFIER

Beam Power Pentode

ConstructionOctal T-9
Base.....Octal 7 Pin, B7-233 or B8-142
Basing8KG
Outline9-11
Maximum Diameter1.188 In.
Maximum Seated Height2.750 In.
Maximum Overall Height3.312 In.



ELECTRICAL DATA

HEATER OPERATION

Heater Voltage.....	6.3 Volts
Heater Current	800 Ma
Maximum Heater-Cathode Voltage	
Heater Negative with Respect to Cathode	
Total DC and Peak.....	200 Volts
Heater Positive with Respect to Cathode	
DC	100 Volts
Total DC and Peak.....	200 Volts

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Grid No. 1 to Plate	0.25 Pf
Input	10 Pf
Output	5.0 Pf

RATINGS (Design Maximum Rating System)

Plate Voltage (Max.)	550 Volts
Grid No. 2 Voltage (Max.)	440 Volts
Plate Dissipation (Max.)	19 Watts
Grid No. 2 Dissipation (Max.) ⁽¹⁾	3.3 Watts
Cathode Current (Max.).....	85 Ma
Grid No. 1 Circuit Resistance	
Fixed Bias (Max.)	0.3 Megohm
Self Bias (Max.)	1.0 Megohm

CHARACTERISTICS AND TYPICAL OPERATION

	Pentode Operation S. T.- Class A1 Amp.	Ultra-Linear Operation ⁽²⁾ Class AB1 - Push-Pull
Plate Voltage	300	400
Grid No. 2 Voltage	300	Note 2
Grid No. 1 Voltage	-10	-20.5
Cathode Resistor	—	185 Ohms
Peak AF Grid Voltage	10	20.5
Zero Signal Plate Current	60	80
Max. Signal Plate Current	75	138
Zero Signal Grid No. 2 Current	8	11.5
Max. Signal Grid No. 2 Current	15	26.4
Transconductance	10.2K	—
Plate Resistance (Approx.)	29K	—

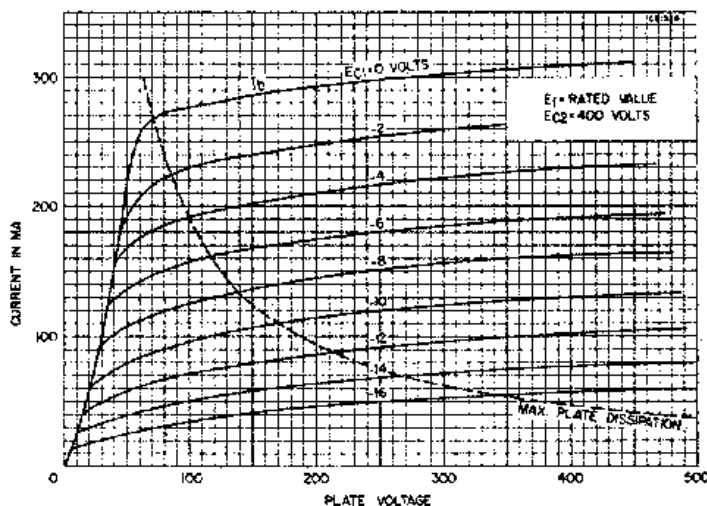
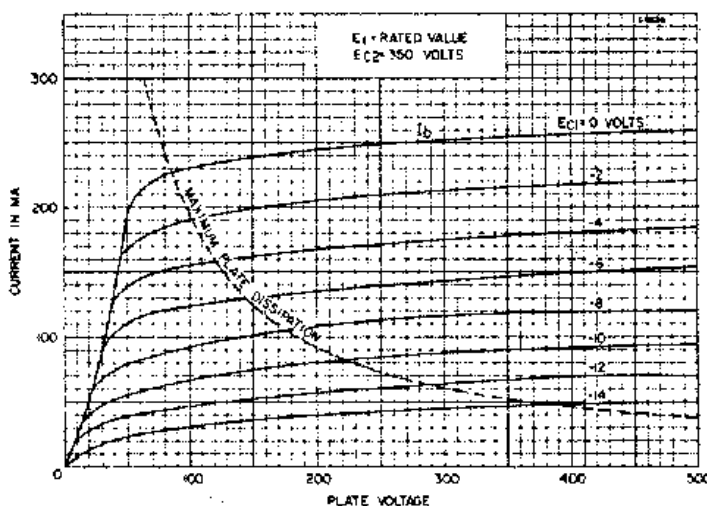
Load Resistance	3K	—	— Ohms
Load Resistance (PL to PL)	—	5600	6600 Ohms
Power Output	11	32	26 Watts
Total Harmonic Distortion	13	1.0	2 Percent

Pentode Operation (Class AB1 Push-Pull Amp.)

Plate Voltage	300	350	400	450	450	450 Volts
Grid No. 2 Voltage	300	350	350	350	400	400 Volts
Grid No. 1 Voltage	-12.5	-15.5	-16	-16.5	-21	— Volts
Cathode Resistor	—	—	—	—	—	200 Ohms
Peak AF Grid to Grid Voltage	25	31	32	33	42	28 Volts
Zero Signal Plate Current	86	92	85	77	66	82 Ma
Max. Signal Plate Current	116	130	143	153	144	94 Ma
Zero Signal Grid No. 2 Current	12.6	13	11	9.6	9.4	11.5 Ma
Max. Signal Grid No. 2 Current	26	28.6	27	27	30	22 Ma
Load Resistance (PL to PL)	6600	6600	6600	6600	6600	9000 Ohms
Power Output	23	30	37	43	45	28 Watts
Total Harmonic Distortion	2.4	2	1.5	1.5	1.5	2 Percent

NOTES:

- (1) Grid No. 2 Dissipation may be permitted to reach 6 watts during the periods of maximum input of speech and music signals. For efficient operation of Grid No. 2, the two Grid No. 2 connections, Pins 4 and 8, should be externally tied together.
- (2) Grid No. 2 tapped at 40% of the primary winding.

AVERAGE PLATE CHARACTERISTICS**AVERAGE PLATE CHARACTERISTICS**

AVERAGE TRANSFER CHARACTERISTICS

