

The 9T9 design utilizes a T-9 (1 1/8" Dia.) bulb based to fit a standard 9-pin miniature socket. Advantages of the 9T9 include an increase in the heat dissipation safety margin, as compared to 9-pin miniature tubes employing T-6 1/2 (1 3/16" 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	Any

### ELECTRICAL DATA

HEATER CHARACTERISTICS	7754	7695		
Heater Voltage	6.3	50 Volts		
Heater Current <sup>1</sup>	1200	150 Ma		
Heater-Cathode Voltage (Design Maximum Values)				
Heater Negative with Respect to Cathode				
Total DC and Peak	200	200 Volts	Max.	
Heater Positive with Respect to Cathode				
DC	100	100 Volts	Max.	
Total DC and Peak	200	200 Volts	Max.	

### DIRECT INTERELECTRODE CAPACITANCES (Approx.)

Grid No. 1 to Plate	0.75 $\mu\mu\text{f}$
Input: g1 to (h+k, g3+g2)	14 $\mu\mu\text{f}$
Output: p to (h+k, g3+g2)	9 $\mu\mu\text{f}$

### 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 OPERATIONS

#### Class A1 Amplifier (Single Tube)

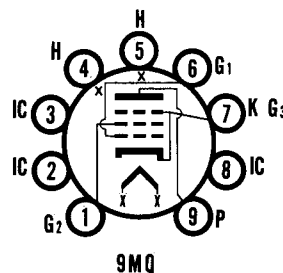
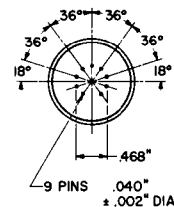
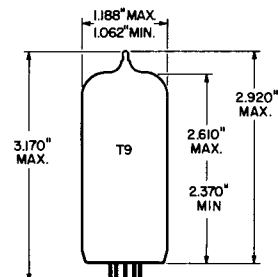
Plate Voltage	130	140 Volts
Grid No. 2 Voltage	130	140 Volts
Grid No. 1 Voltage	-11	— Volts
Cathode Resistor	—	100 Ohms
Peak AF Grid No. 1 Voltage	11	11.3 Volts
Zero Signal Plate Current	100	100 Ma
Max. Signal Plate Current	108	100 Ma
Zero Signal Grid No. 2 Current	5	5 Ma
Max. Signal Grid No. 2 Current	15	14 Ma
Transconductance	11,000	— $\mu\text{mhos}$
Plate Resistance (Approx.)	7,000	— Ohms
Load Resistance	1,100	1,100 Ohms
Max. Signal Power Output	4.5	4.5 Watts
Total Harmonic Distortion (Approx.)	11	11 Percent

#### Class AB1 Push-Pull Amplifier (Values are for two tubes)

Plate Voltage	130	140 Volts
Grid No. 2 Voltage	130	140 Volts
Grid No. 1 Voltage	-12	— Volts
Cathode Resistor	—	50 Ohms
Peak AF Grid No. 1 to Grid No. 1 Voltage	22.6	22.6 Volts
Zero Signal Plate Current	195	210 Ma
Max. Signal Plate Current	220	220 Ma
Zero Signal Grid No. 2 Current	9	9 Ma
Max. Signal Grid No. 2 Current	24	20 Ma
Load Resistance (P1 to P1)	1,800	1,500 Ohms
Maximum Signal Power Output	10	10 Watts

## QUICK REFERENCE DATA

The Sylvania Types 7695 and 7754 are beam power pentodes featuring remarkably high power sensitivity as audio power amplifiers. In Class A1 operation, they can deliver 4.5 watts of power with a B+ voltage of only 130 volts. As a result, the 7695 and 7754 make possible economies in power supply requirements.



## SYLVANIA ELECTRONIC TUBES

A Division of  
Sylvania Electric Products Inc.

### RECEIVING TUBE OPERATIONS EMPORIUM, PA.

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AUGUST, 1960

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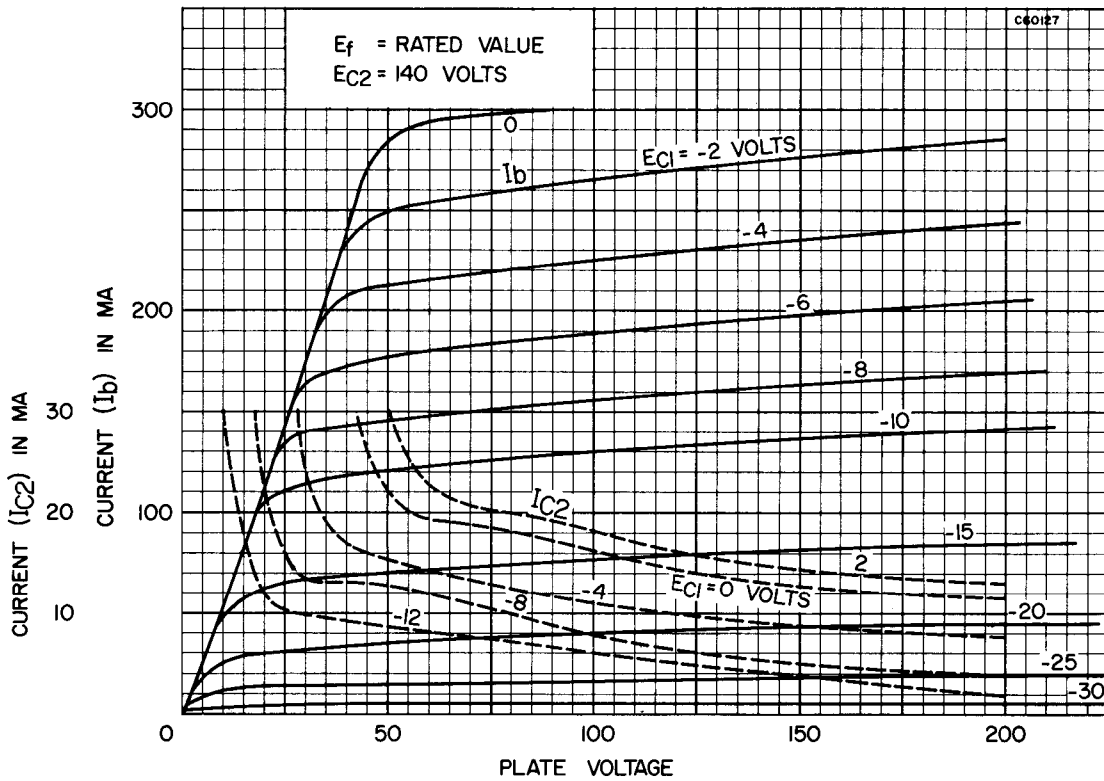
File Under

**SINGLE ENDED PUSH-PULL, CLASS A**

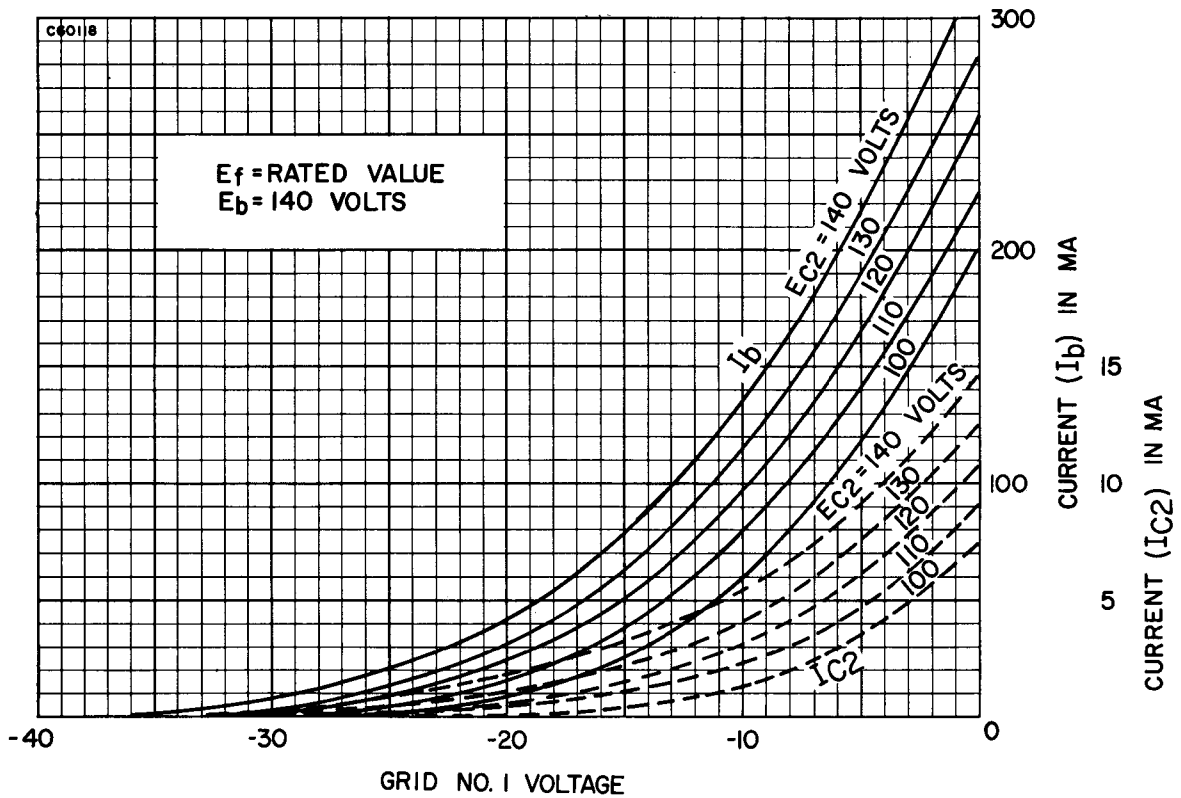
**Transformerless Operation (See Circuit and Curve)**

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

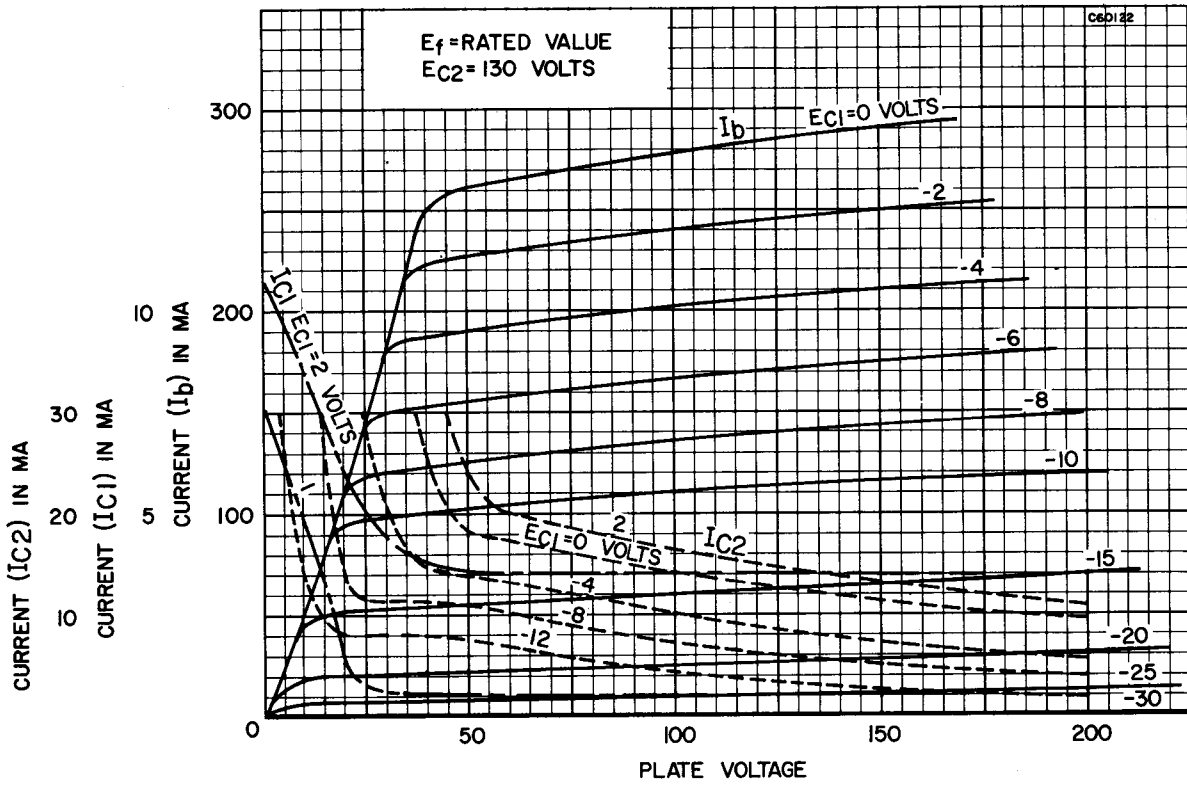
### AVERAGE PLATE CHARACTERISTICS



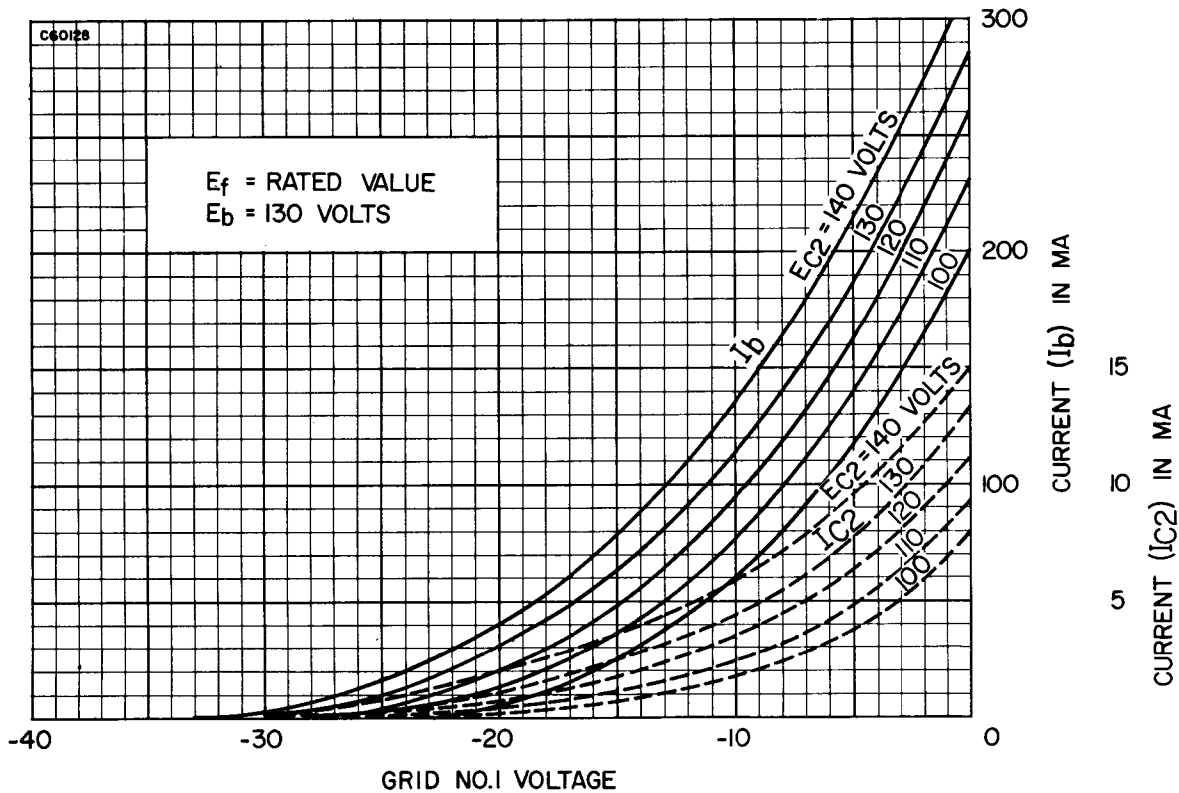
### AVERAGE TRANSFER CHARACTERISTICS



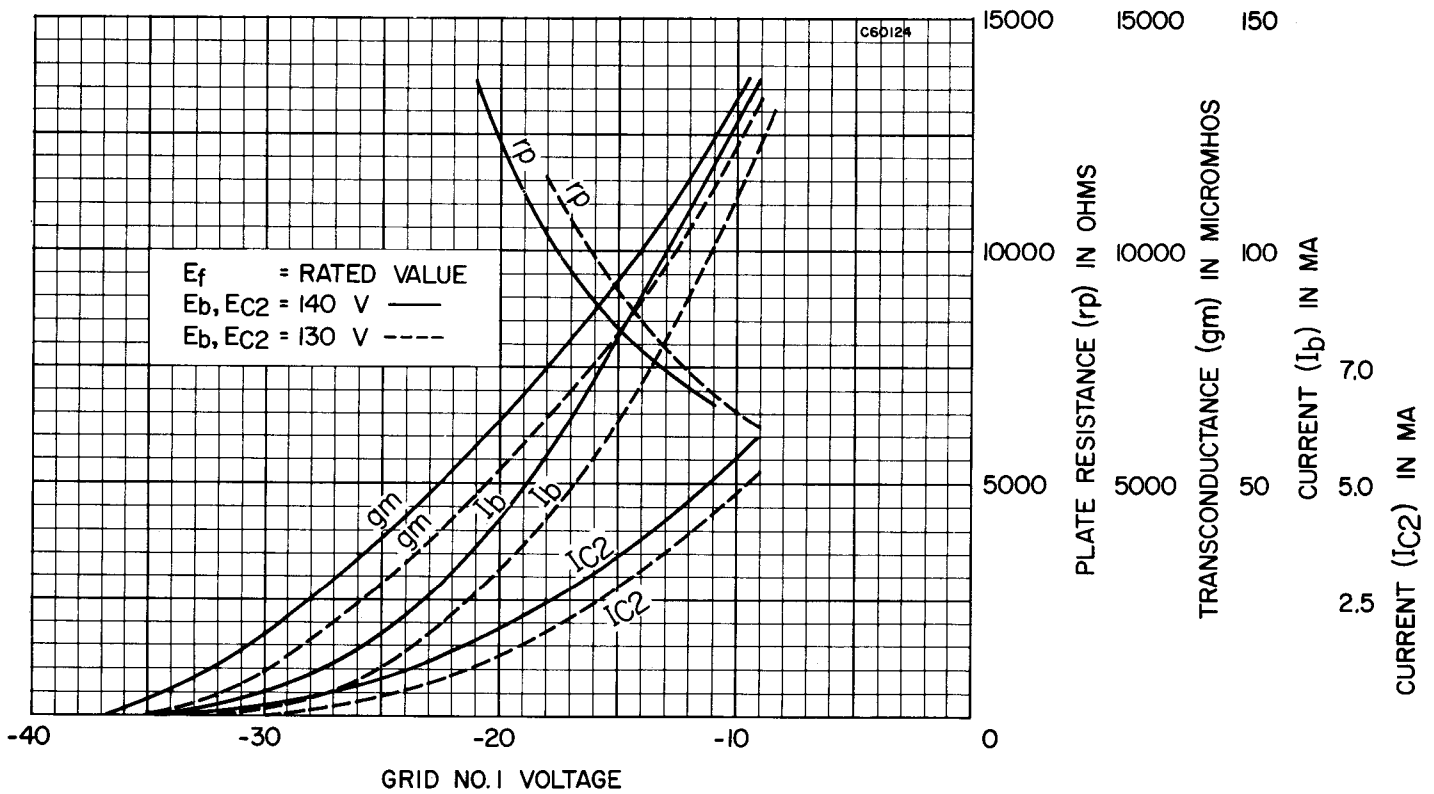
AVERAGE PLATE CHARACTERISTICS



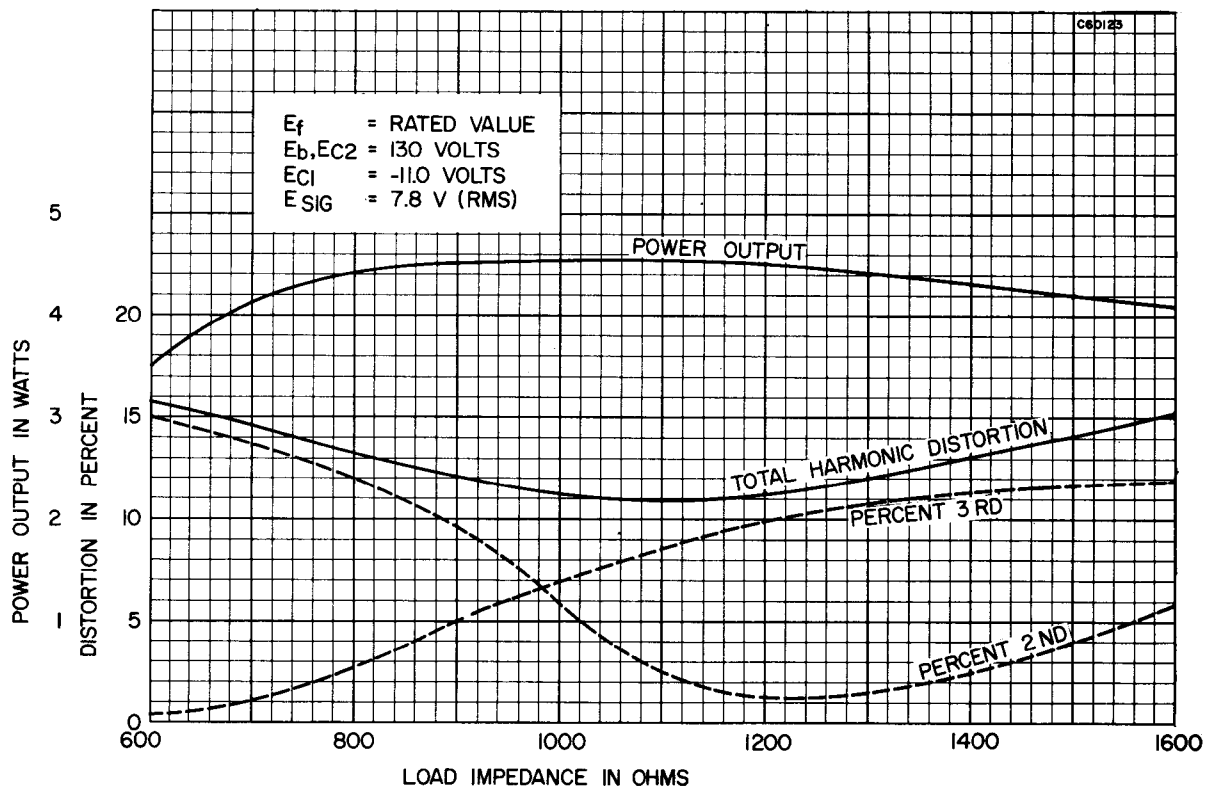
AVERAGE TRANSFER CHARACTERISTICS



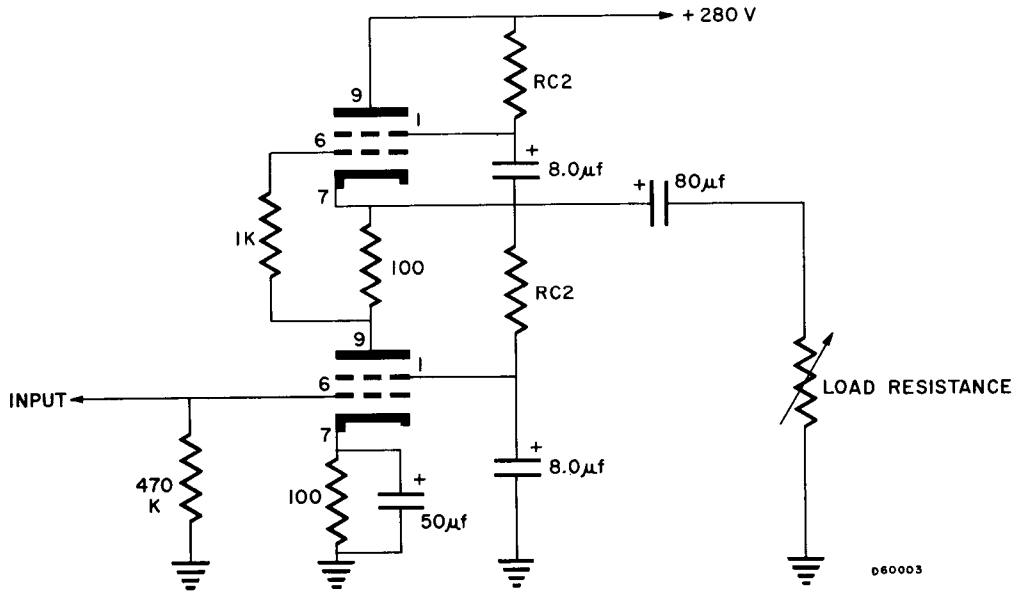
AVERAGE TRANSFER CHARACTERISTICS



AVERAGE OPERATION CHARACTERISTICS  
(Class A1 Amplifier)



**SINGLE ENDED PUSH-PULL CIRCUIT  
(Transformerless)**



**SINGLE ENDED PUSH-PULL  
(Transformerless Operation (See Circuit))**

