



6L7, 6L7-G

6L7-G



### PENTAGRID MIXER AMPLIFIER

Heater <sup>■</sup> Coated Unipotential Cathode		
Voltage	6.3	a-c or d-c volts
Current	0.3	amp.
	<u>6L7</u>	<u>6L7-G</u>
Direct Interelectrode Cap.	▲	▲▲
Grid #1 to Grid #3	0.2 max.	0.2 max. μf
Grid #1 to Plate	0.001 max.	0.005 max. μf
Grid #3 to Plate	0.1	0.2 μf
Grid #1 to All Other Electrodes	7.5	6 μf
Grid #3 to All Other Electrodes	10	12 μf
Plate to All Other Electrodes	11	10 μf
Overall Length	3-1/8" max.	{4-7/32" to 4-15/32"
Maximum Diameter	1-5/16"	1-9/16"
Bulb	Metal Shell, MT-8	ST-12
Cap	Miniature	Skirted Min.
Base	{Small Wafer Octal 7-Pin	{Small Shell Octal 7-Pin
Basing Designation	7T	G-7T
Pin 1 {6L7, Shell 6L7-G, No Con.		Pin 5 - Grid #3
Pin 2 - Heater		Pin 7 - Heater
Pin 3 - Plate		Pin 8 - Cathode & Grid #5
Pin 4 - Grids #2 & #4		Cap - Grid #1
Mounting Position		BOTTOM VIEW
<u>AMPLIFIER - Class A<sub>1</sub></u>		
Plate Voltage	300 max.	volts
Screen Voltage (Grids #2 & #5)	100 max.	volts
Plate Dissipation	1.5 max.	watts
Screen Dissipation	1.0 max.	watt
Typical Operation:		
Plate	250	volts
Screen	100	volts
Control Grid (Grid #1)	-3	volts
Control Grid (Grid #3)	-3	volts
Plate Res. (approx.)	0.6	megohm
Transcond., Grid #1 to Plate	1100	μmhos
Transcond., Grid #1 to Plate*	5 approx.	μmhos
Plate Cur.	5.3	ma.
Screen Cur.	6.5	ma.
<u>MIXER</u>		
Plate Voltage	300 max.	volts
Screen Voltage (Grids #2 & #4)	150 max.	volts
Plate Dissipation	1.0 max.	watt
Screen Dissipation	1.5 max.	watts
<sup>■</sup> In circuits where the cathode is not connected directly to the heater, the potential difference between heater and cathode should be kept as low as possible. <sup>▲</sup> With shell connected to cathode. <sup>▲▲</sup> With close-fitting shield connected to cathode. <sup>*</sup> With grid #1 bias of -15 volts, and grid #3 bias of -15 volts.		

FEB. 2, 1940

RCA RADOTRON DIVISION  
RCA MANUFACTURING COMPANY, INC.

DATA

6L7  
6L7-G



6L7,6L7-G

### PENTAGRID MIXER AMPLIFIER

(continued from preceding page)

Typical Operation:

Plate	250	250*	volts
Screen	100	150*	volts
Signal-Grid (Grid #1)	-3 min.	-6* min.	volts
Oscillator Grid (Grid #3) **	-10	-15	volts
Peak Osc.-Grid Voltage Applied to Grid #3	12 min.	18 min.	volts
Plate Res.	Greater than 1		megohm
Conversion Transcond.	375	350	$\mu$ hos
Conversion Transcond.	5 $\bullet$	5 $\Delta$	$\mu$ hos
Plate Cur.	2.4	3.3	ma.
Screen Cur.	7.1	9.2	ma.

- \*\* The d-c resistance in grid #3 circuit should not exceed 50000 ohms.  
 $\bullet$  With grid #1 bias of -30 volts.  $\Delta$  With grid #1 bias of -45 volts.  
\* These conditions are recommended for multi-range receiver applications.

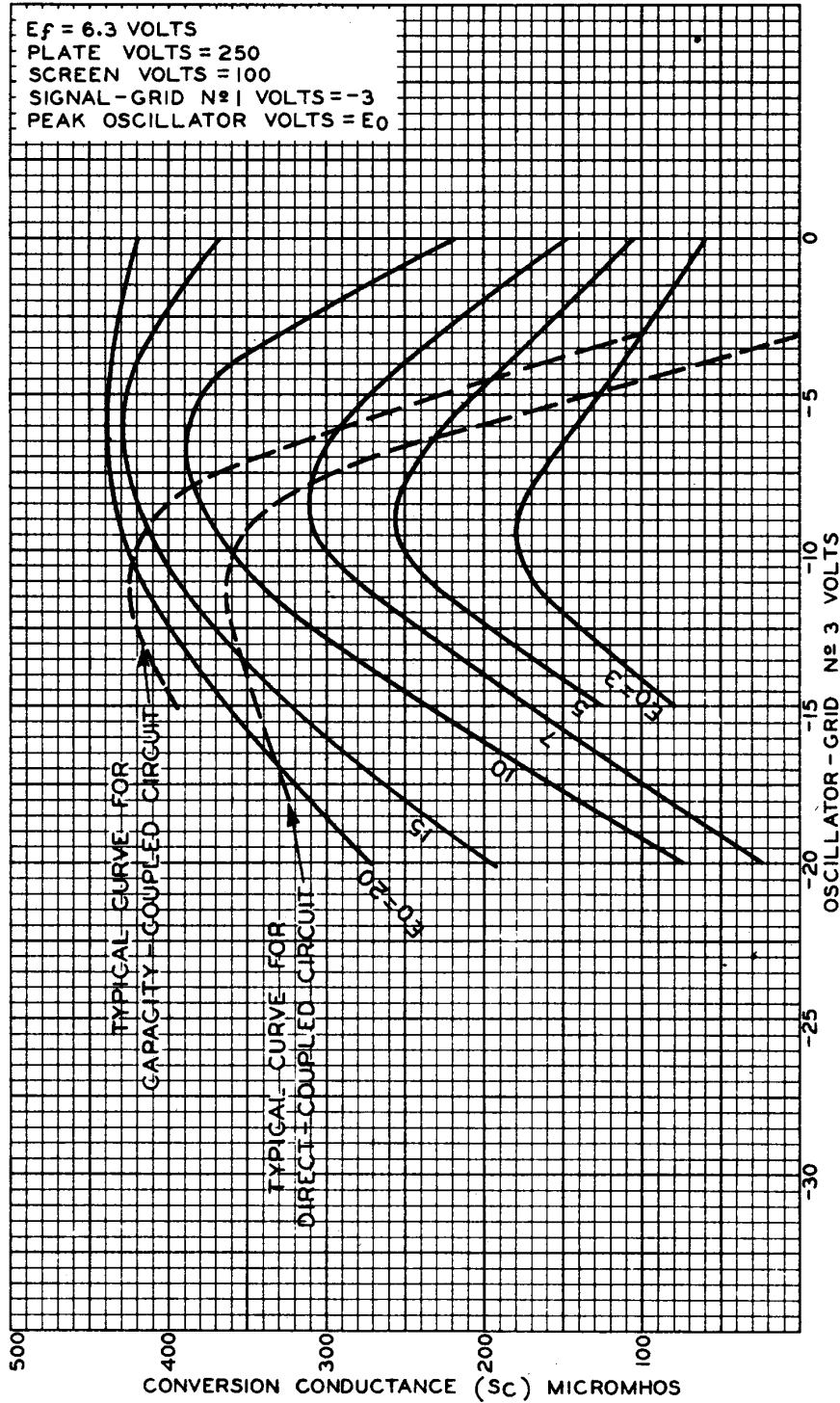
FEB. 2, 1940

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DATA

OPERATION CHARACTERISTICS

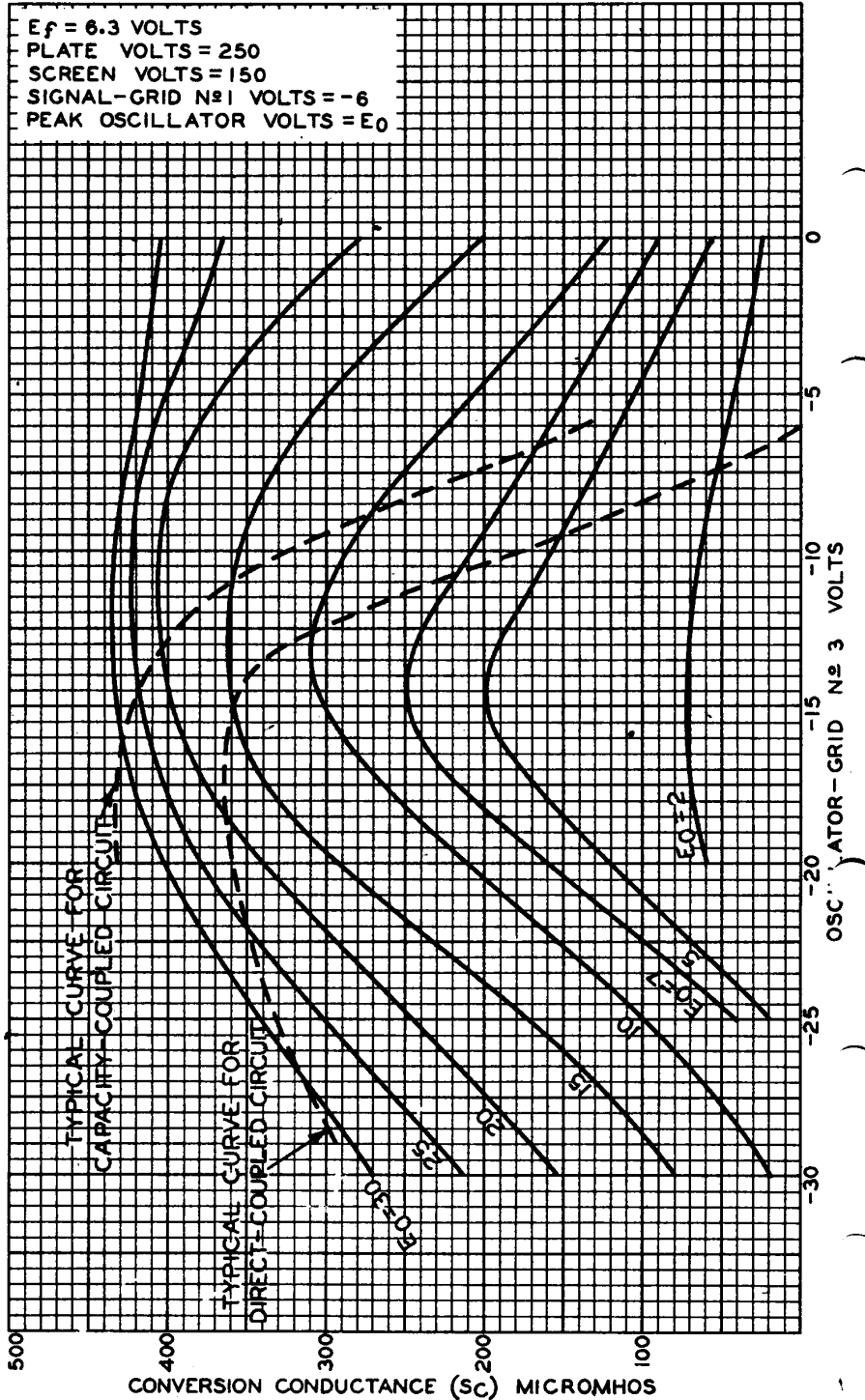
$E_f = 6.3$  VOLTS  
 PLATE VOLTS = 250  
 SCREEN VOLTS = 100  
 SIGNAL-GRID N<sup>o</sup>1 VOLTS = -3  
 PEAK OSCILLATOR VOLTS =  $E_0$



6L7

**RCA** **Cunningham** **Radiotron** **RADIO TUBES**  
**RCA-6L7**

**OPERATION CHARACTERISTICS**



JULY 26, 1935

RCA RADIOTRON DIVISION  
 RCA MANUFACTURING COMPANY, INC.

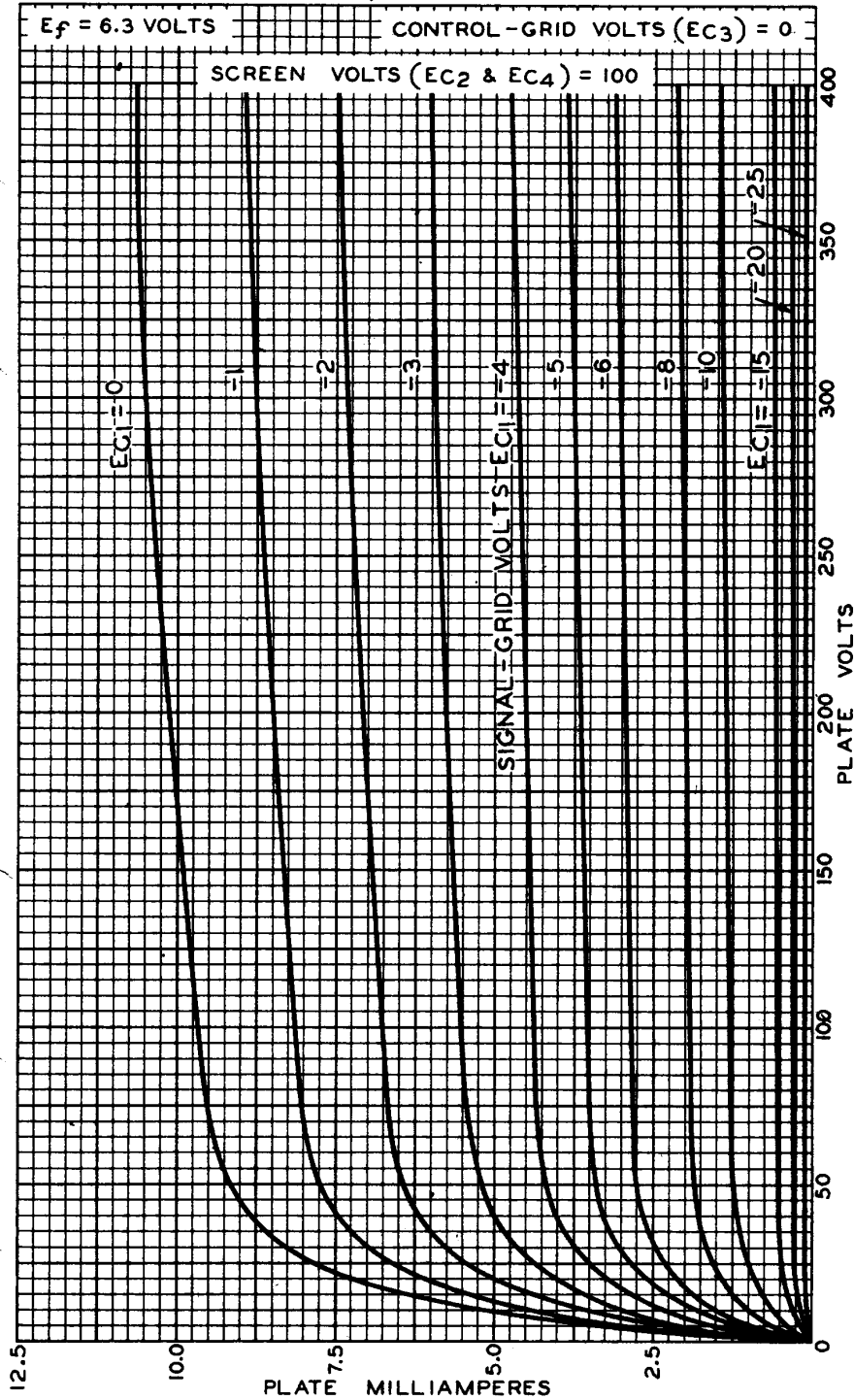
92C-4445



6L7

6L7

### AVERAGE PLATE CHARACTERISTICS WITH $E_{C1}$ AS VARIABLE



JAN. 3, 1936

RCA RADIODRON DIVISION  
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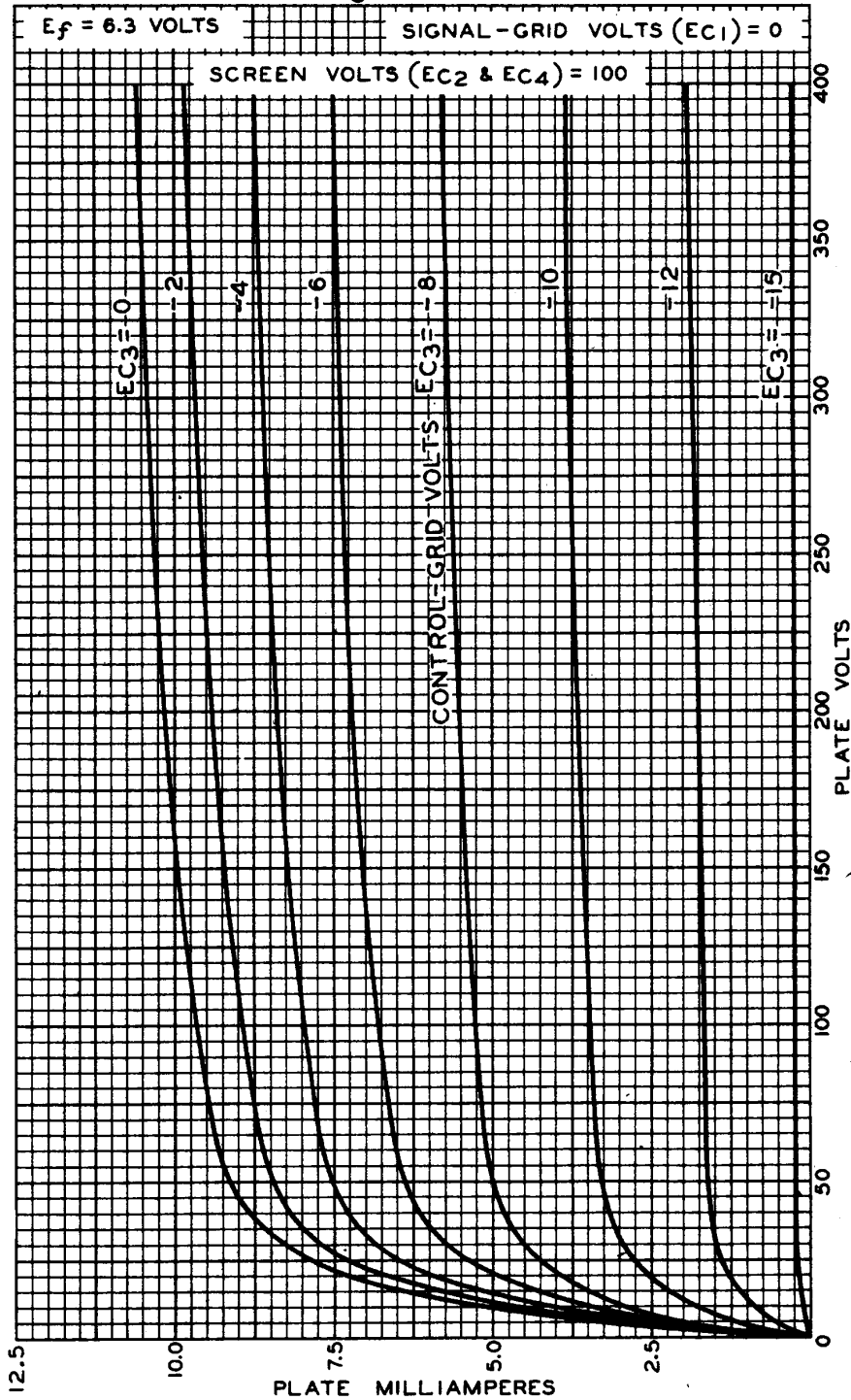
92C-4531

6L7



6L7

### AVERAGE PLATE CHARACTERISTICS WITH $EC_3$ AS VARIABLE



JAN. 7, 1936

RCA RADIOTRON DIVISION  
RCA MANUFACTURING COMPANY, INC.

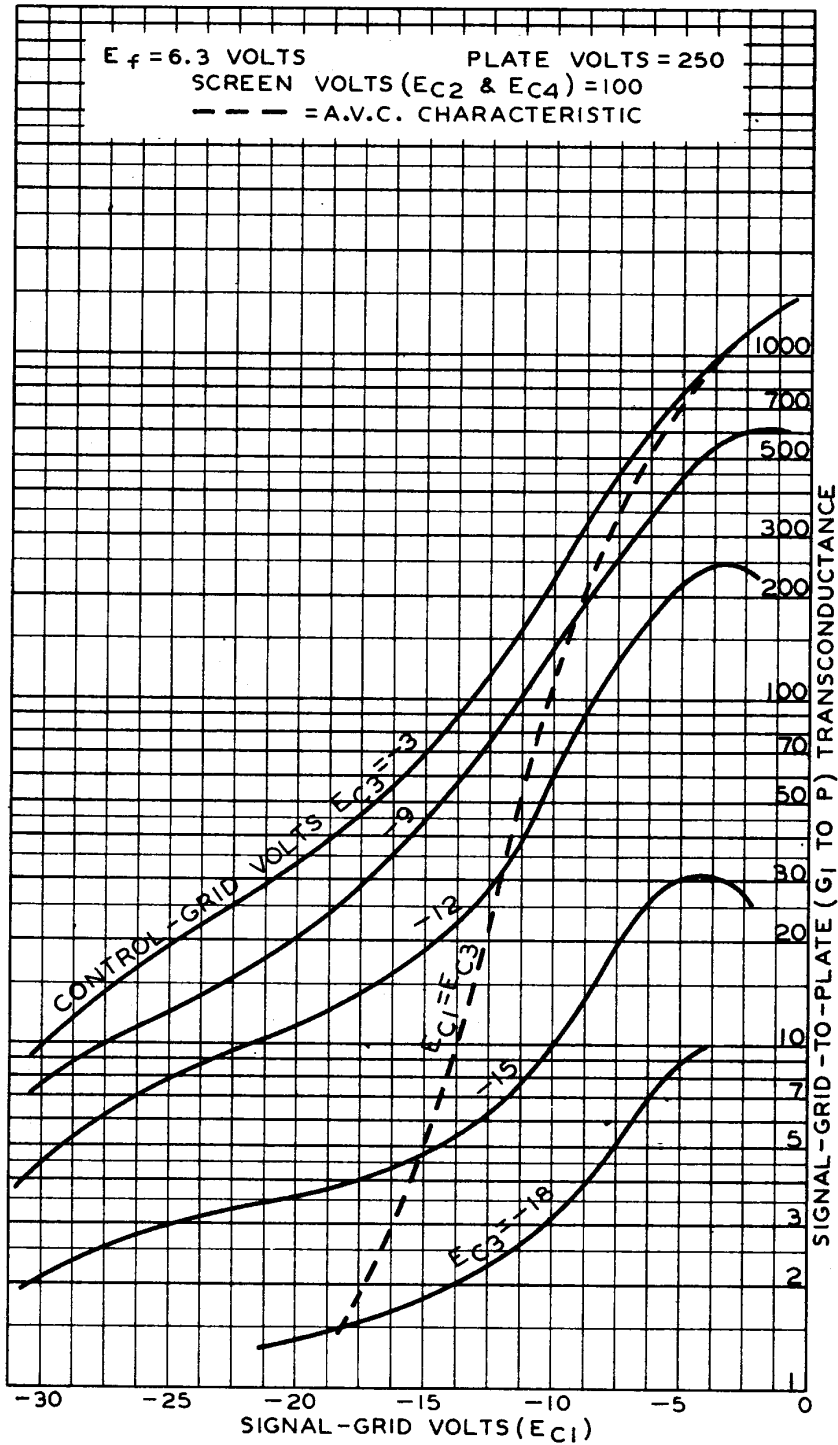
92C-4534



6L7

6L7

### AVERAGE CHARACTERISTICS



JAN. 8, 1936

RCA RADOTRON DIVISION  
RCA MANUFACTURING COMPANY, INC.

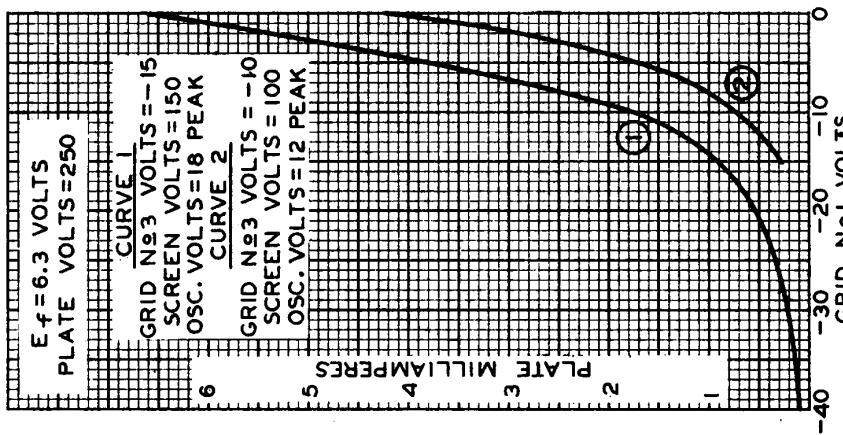
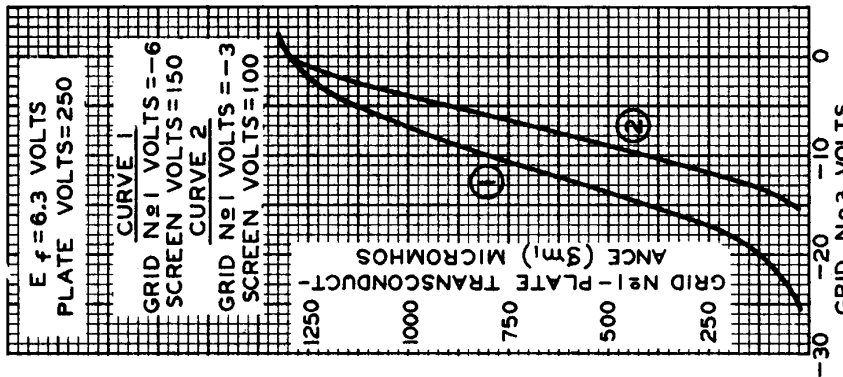
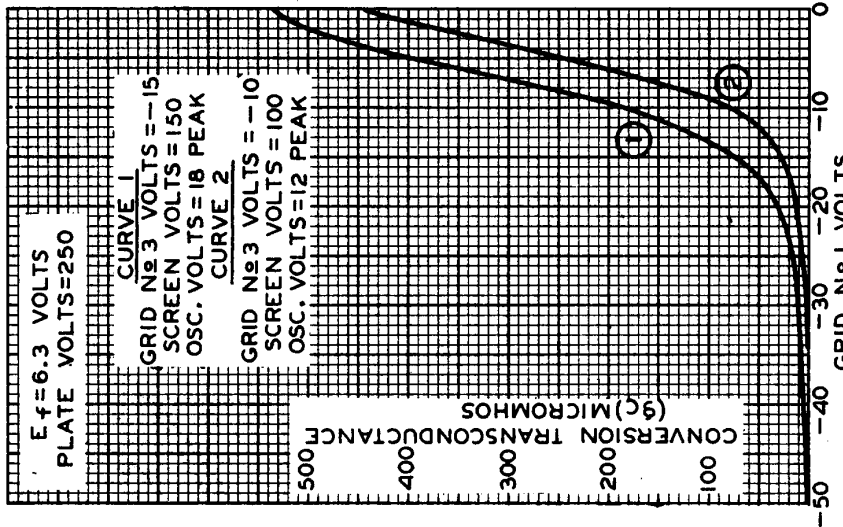
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6L7



6L7

### AVERAGE CHARACTERISTICS



AUG. 5, 1935

RCA RADIOTRON DIVISION  
RCA MANUFACTURING COMPANY, INC.

92C-4442