

RADIOTRON

1K6

1K6
1K7-G
SHEET 1

DUO-DIODE PENTODE

Filament	Coated	
Voltage	2.0	d-c volts
Current	0.12	amp.
Maximum Overall Length		4-15/16"
Maximum Diameter		1-9/16"
Bulb		ST-12
Cap		Small Metal
Mounting Position		Any

Base

Pin 1-Filament +
Pin 2-Plate
Pin 3-Diode Plate # 2



Small 6-Pin
Pin 4-Diode Plate #1
Pin 5-Screen
Pin 6-Filament -
Cap -Grid

BOTTOM VIEW (6WA)

Maximum Ratings, Interelectrode Capacitances, Typical Operating Conditions and Curves are the same as for type 1K7-G. Types 1K6 and 1K7-G are identical electrically.

RADIOTRON

1K7-G



DUO-DIODE PENTODE

Filament	Coated	
Voltage	2.0	d-c volts
Current	0.12	amp.
Direct Interelectrode Capacitances - Pentode Unit [*] :		
Grid to Plate	0.015 max.	μF.
Input	5.0	μF.
Output	10.5	μF.

Maximum Overall Length	4-29/32"
Maximum Diameter	1-9/16"
Bulb	ST-12
Cap	Skirted Miniature
Mounting Position	Any

Base

Pin 1-No Connection
Pin 2-Filament +
Pin 3-Pentode Plate
Pin 4-Diode Plate # 2
Pin 5-Diode Plate # 1



Small Shell Octal 8-Pin
Pin 6-Pentode Screen
Pin 7-Filament -
Pin 8-No Connection
Cap -Pentode Grid

BOTTOM VIEW (G-7AE)

Diode Plate # 2 is at positive end of filament; Diode Plate # 1 is at negative end of filament.

* With shield-can connected to negative filament terminal.

RADIOTRON 1K7-G

DUO-DIODE PENTODE

(continued from preceding page)

AMPLIFIER - Class A₁ (Pentode Connection)

Plate Voltage	180 max. volts
Screen Voltage	135 max. volts
Screen Supply Voltage	180 max. volts
Plate Dissipation	0.35 max. watt
Screen Dissipation	0.07 max. watt

Typical Operation:-

Filament Voltage	2.0	2.0	2.0	2.0	d-c	volts
Plate Voltage	135	135	135	135		volts
Screen Voltage	45	67.5	90	135		volts
Grid Voltage*	0	0	-3	-4.5		volts
Plate Current	0.9	1.8	0.9	1.5		mA.
Screen Current	0.35	0.7	0.35	0.5		mA.
Plate Resistance (approx.)	2.0	1.25	2.0	1.4		megohm
Transconductance	620	800	600	700		μhos

AMPLIFIER - Class A₁ (Triode Connection).#

Plate Voltage	180 max. volts
Plate & Screen Dissipation (total)	0.7 max. watt

Typical Operation:-

Filament Voltage	2.0	2.0	d-c	volts
Plate Voltage	135	180		volts
Grid Voltage*	-4.5	-6		volts
Plate Current	2.0	3.5		mA.
Plate Resistance	16500	15000		ohms
Transconductance	900	1000		μhos
Amplification Factor	15	15		
Load Resistance	30000	40000		ohms
Total Harmonic Distortion	5	5		%
Power Output	38	60	approx.	mW.

* Negative Filament Return. The grid circuit resistance should not exceed 3 megohms except under resistance coupled conditions.

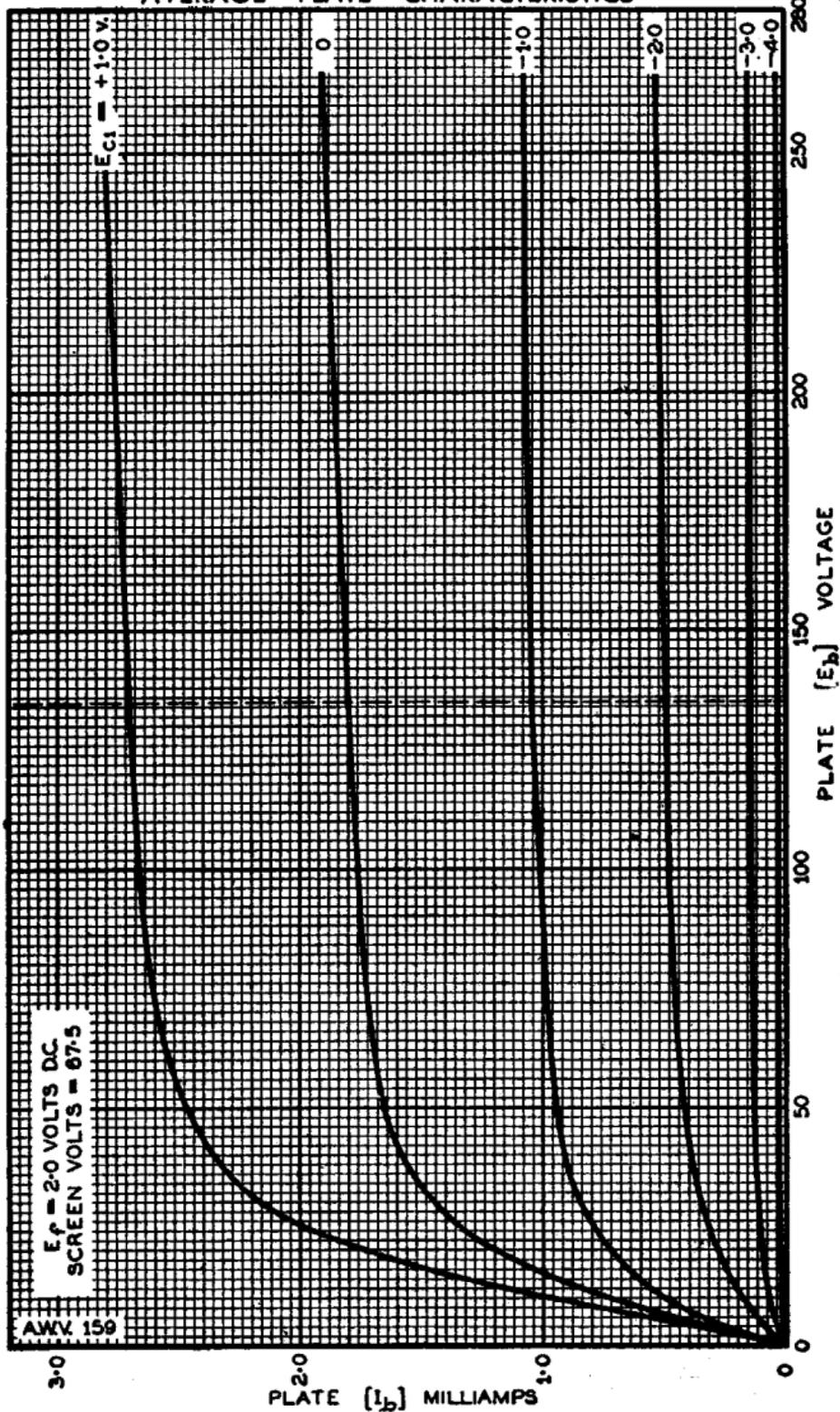
Screen connected to plate.

RADIOTRON

1K7-G

AVERAGE PLATE CHARACTERISTICS

1K7-G
SHEET 2

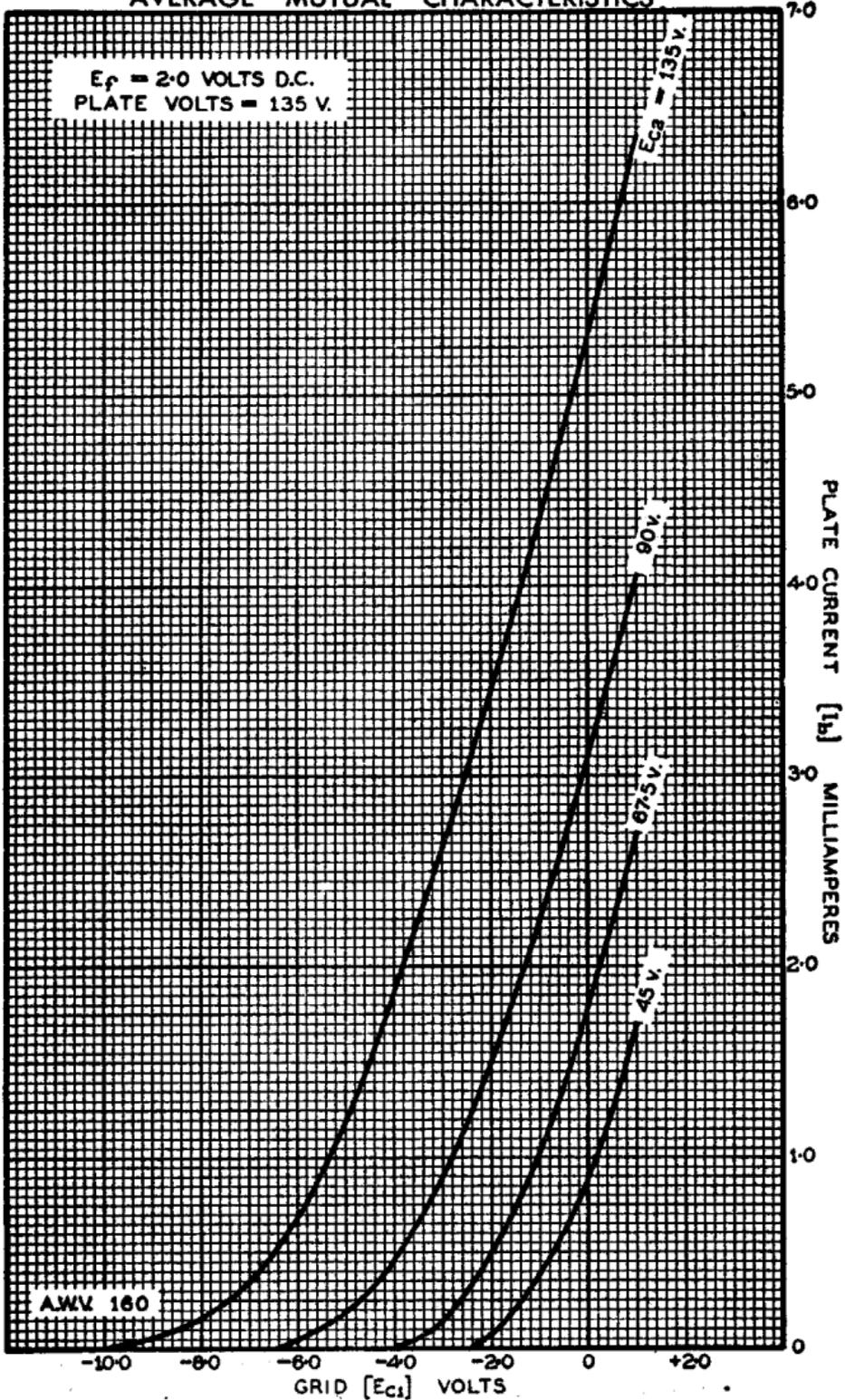


AWV 159

RADIOTRON

1K7-G

AVERAGE MUTUAL CHARACTERISTICS



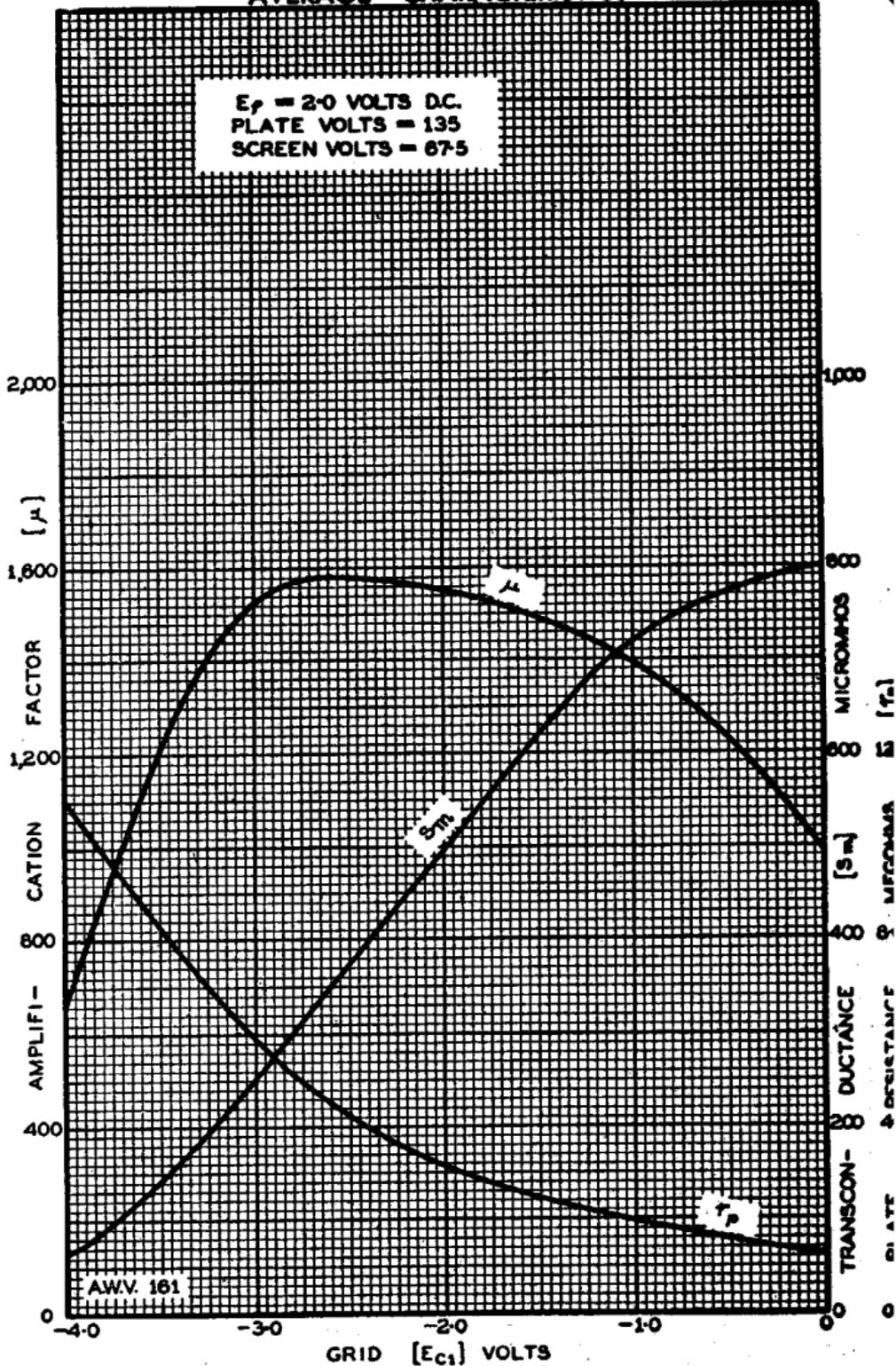
RADIOTRON

1K7-G

AVERAGE CHARACTERISTICS

1K7-G
SHEET 9

$E_p = 200$ VOLTS DC.
PLATE VOLTS = 135
SCREEN VOLTS = 67.5



AWV. 161

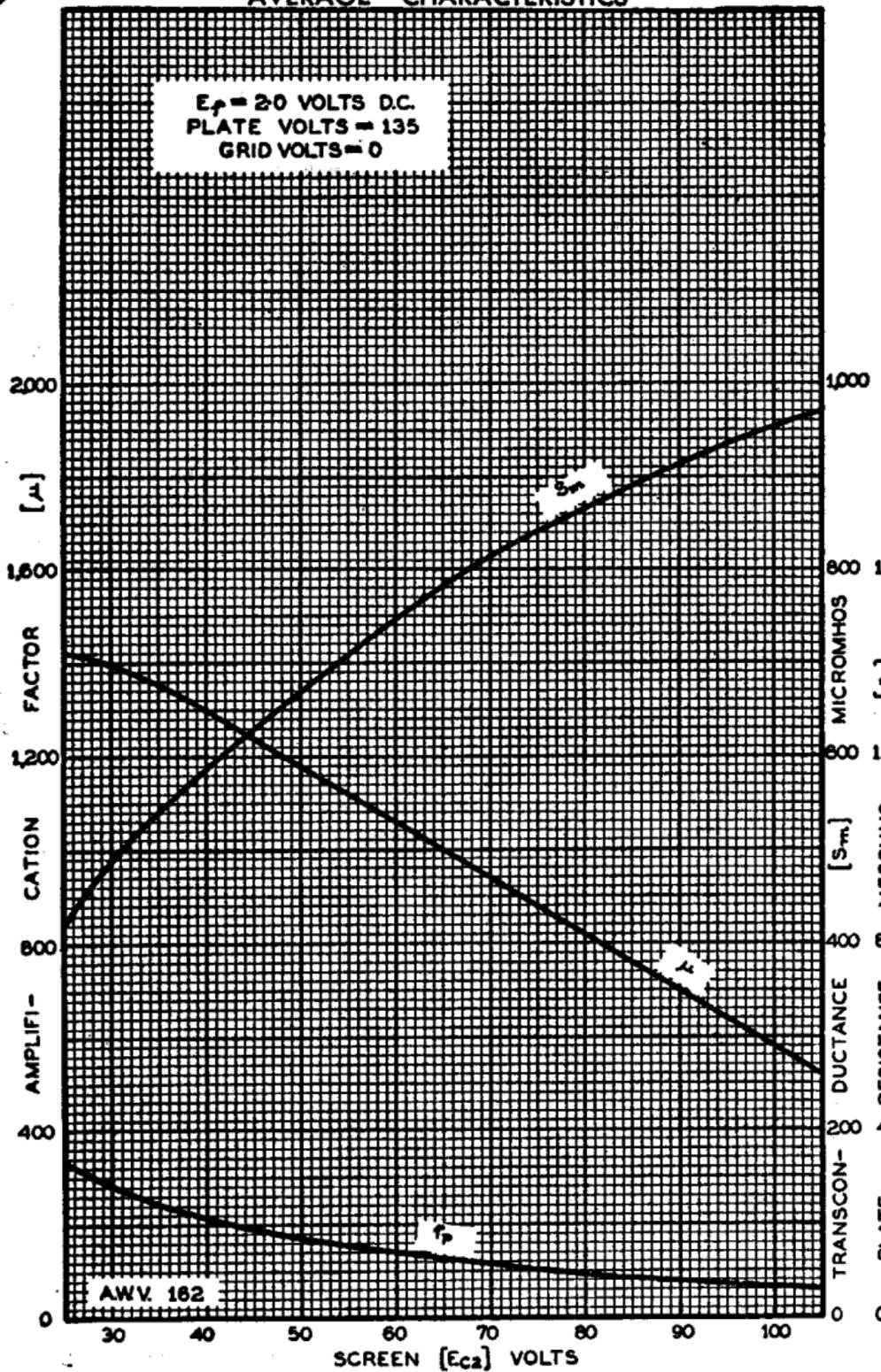
1K7-G

RADIOTRON

1K7-G

AVERAGE CHARACTERISTICS

$E_p = 20$ VOLTS D.C.
 PLATE VOLTS = 135
 GRID VOLTS = 0



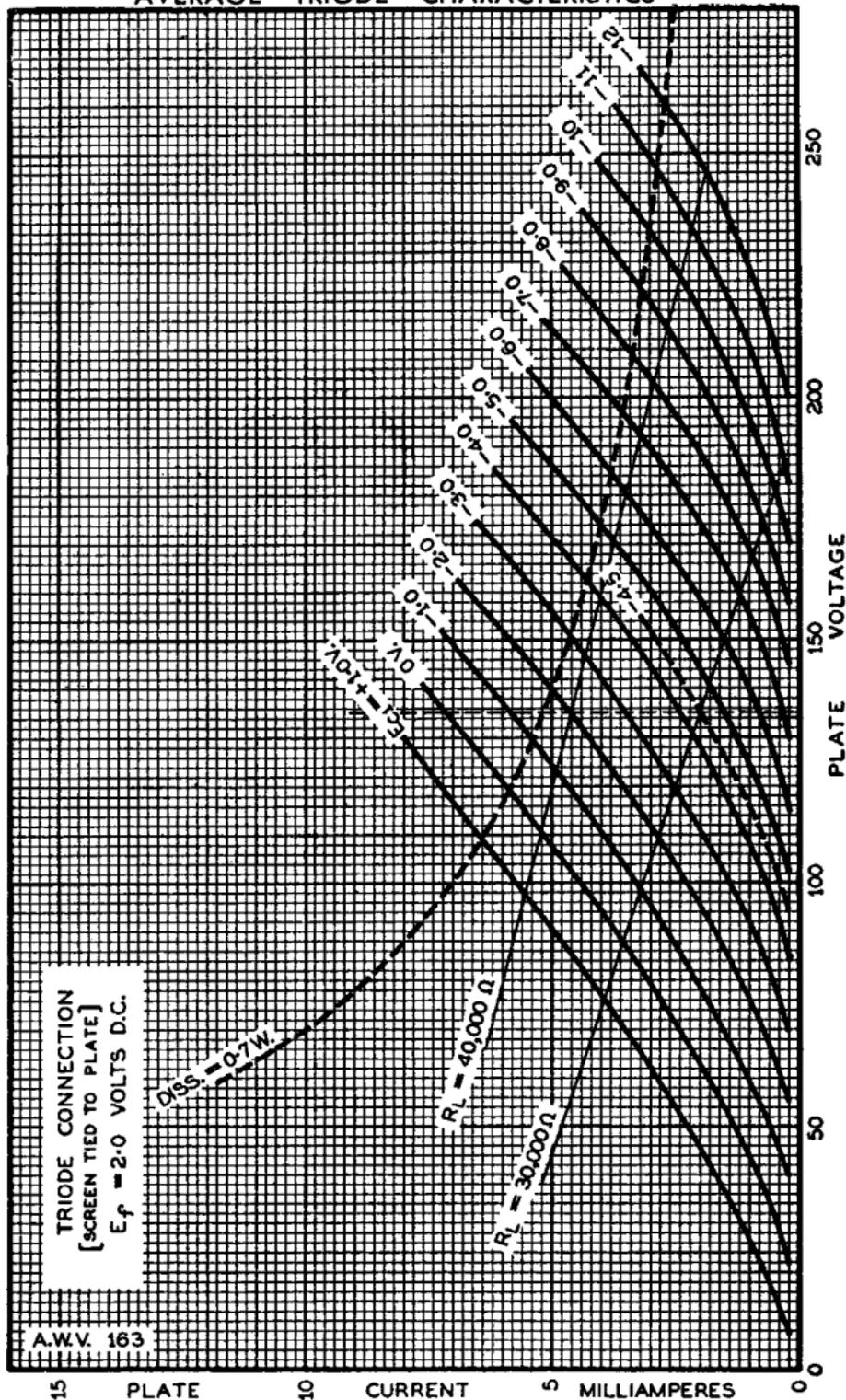
AWV. 162

RADIOTRON

1K7-G

AVERAGE TRIODE CHARACTERISTICS

1K7-G
SHEET 4



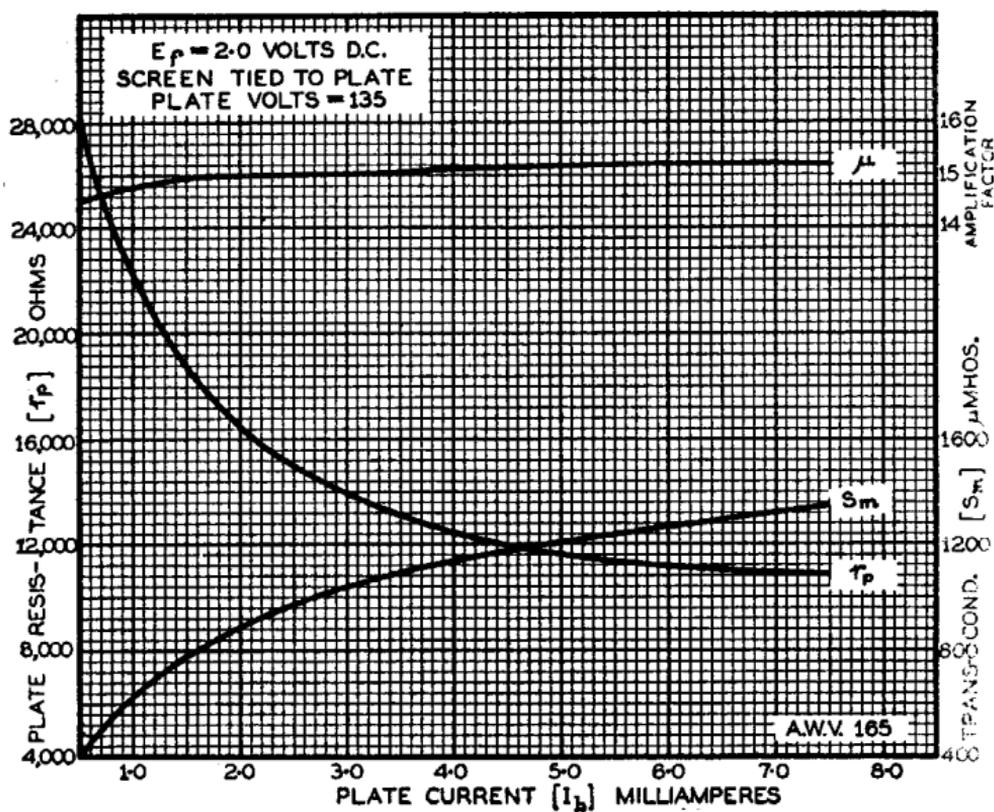
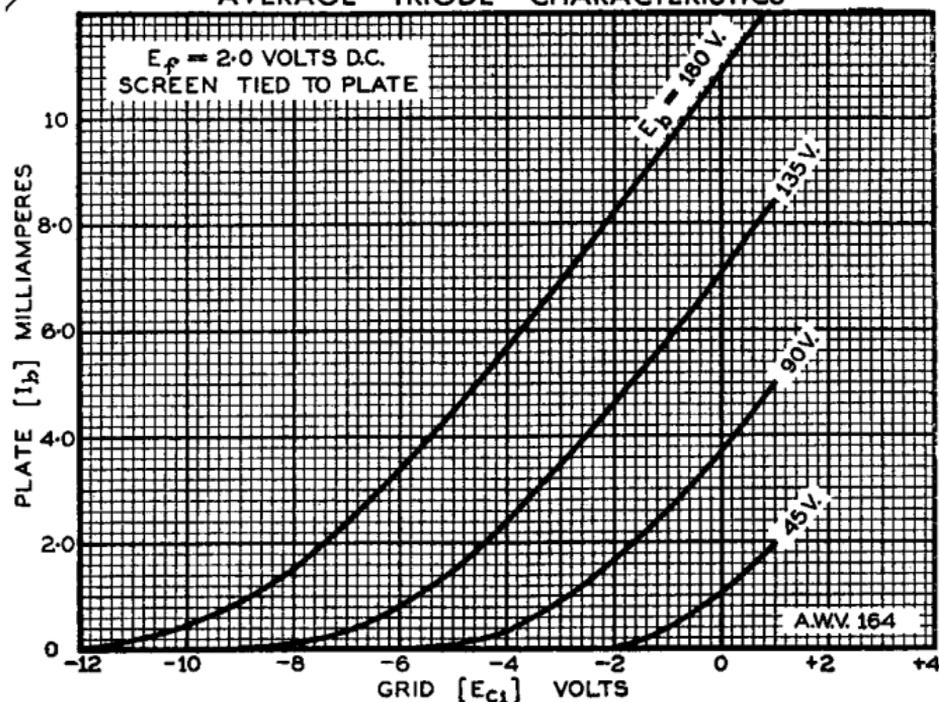
TRIODE CONNECTION
[SCREEN TIED TO PLATE]
 $E_f = 2.0$ VOLTS D.C.

A.W.V. 163

RADIOTRON

1K7-G

AVERAGE TRIODE CHARACTERISTICS



RADIOTRON

RESISTANCE COUPLED PENTODES

(Continued)

RESISTANCE COUPLED PENTODES										
GROUP IV.										
Type	Total Supply	Grid Bias Volts (Battery Types)	Screen Dropping Resistor (Megohms)	Cathode Bias Resistor for Ohms (A.C. Types)	Plate Load Resistor (Megohms)	Following Grid Resistor (Megohms)	RATIO Output/ Input Voltages at 400~ 0.25V. Input	Decibels Gain per Stage at 400~	Peak Voltage Output at 3% Distortion	
1K4 1K5-G }	90	-1.5	0.75	—	0.25	—	59	35.4	25	
	135	-1.5	0.75	—	0.25	0.5	48	33.6	20	
1K6 1K7-G }	180	-1.5	1.0	—	0.25	0.5	75	37.5	36	
	90	-1.5	1.0	—	0.25	0.5	62.5	35.9	30	
	135	-1.5	1.0	—	0.25	0.5	88.5	39.0	48	
	180	-1.5	1.0	—	0.25	0.5	74	37.4	40	
						0.25	0.5	54	34.7	22
						0.25	0.5	45	33.1	18
6C6 6J7-G 57 1603 }		—	0.3	2,000	0.1	1.0	76	37.6	34	
		—	0.3	2,000	0.1	0.5	63	36.0	28	
	250	—	0.3	2,000	0.1	0.5	83	38.4	45	
	400	—	0.3	2,000	0.1	0.5	69	36.8	38	
						1.0	98	39.8	85	
						0.5	82	38.3	78	
						0.25	70	36.9	67	
						1.0	105	41.4	135	
						0.5	92	39.3	124	
						0.25	80	38.1	106	
GROUP V.										