

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		Small 6-Pin
Pin 1-Filament +		Pin 4-Diode Plate #1
Pin 2-Plate		Pin 5-Screen
Pin 3-Diode Plate # 2		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.	μμF.
Input	5.0	μμF.
Output	10.5	μμF.

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

Base		Small Shell Octal 8-Pin
Pin 1-No Connection		Pin 6-Pentode Screen
Pin 2-Filament +		Pin 7-Filament -
Pin 3-Pentode Plate		Pin 8-No Connection
Pin 4-Diode Plate # 2		Cap -Pentode Grid
Pin 5-Diode Plate # 1		



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		μmhos

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		μmhos
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.

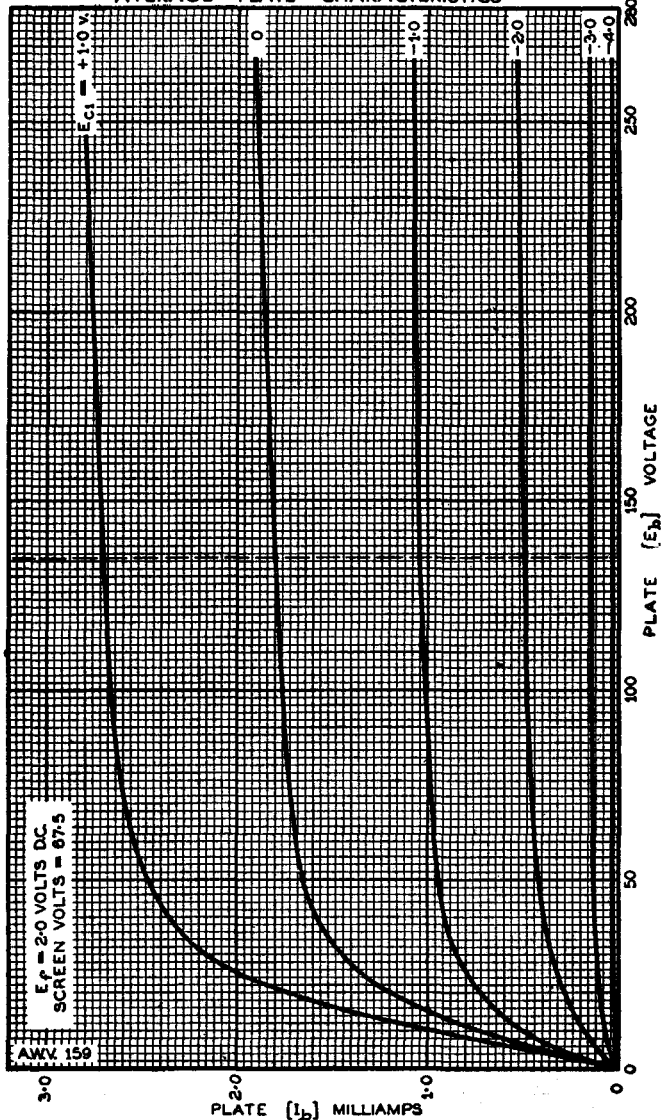
Screen connected to plate.

RADIOTRON

1K7-G

AVERAGE PLATE CHARACTERISTICS

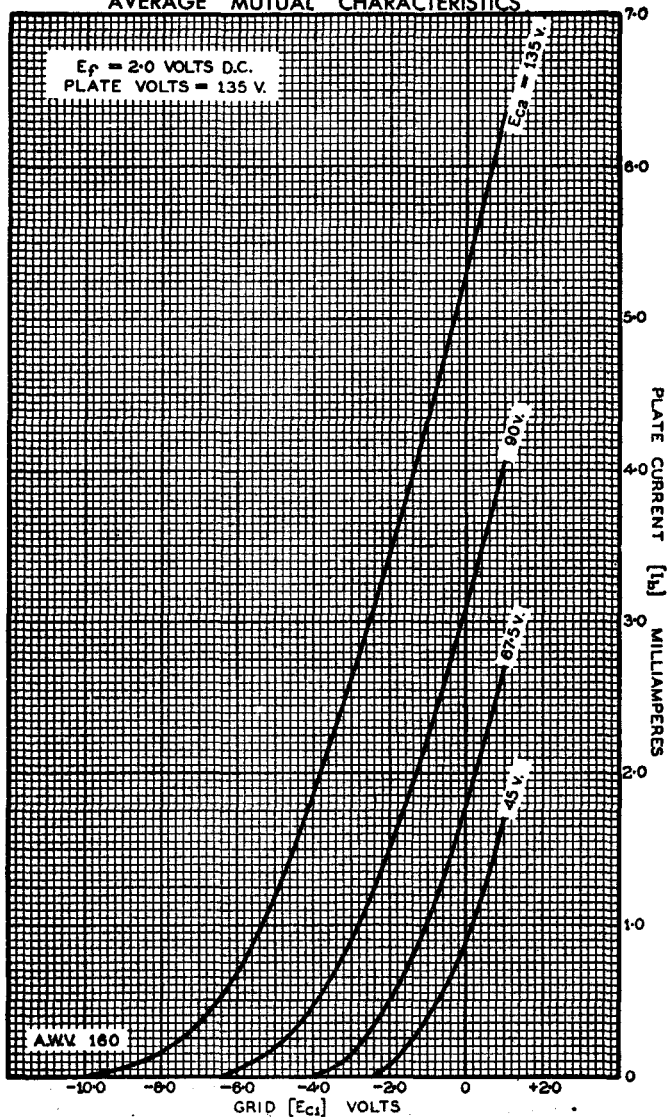
1K7-G
SHEET 2



RADIOTRON

1K7-G

AVERAGE MUTUAL CHARACTERISTICS



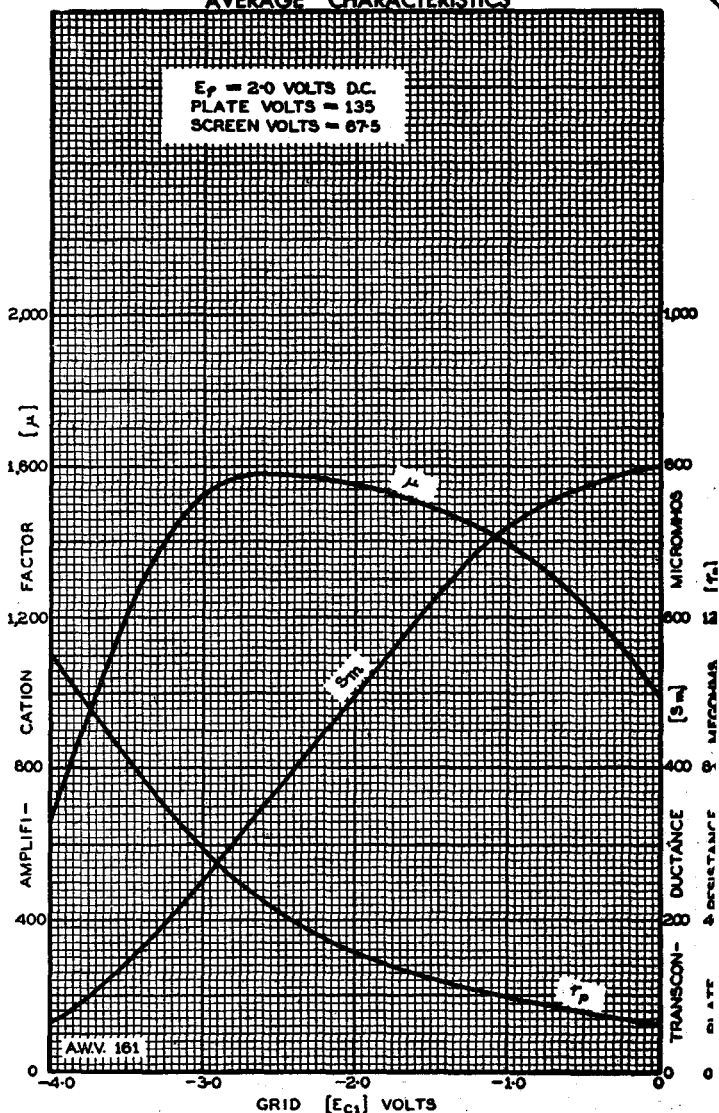
RADIOTRON

1K7-G

AVERAGE CHARACTERISTICS

1K7-G
SHEET 2

$E_f = 2.0$ VOLTS D.C.
PLATE VOLTS = 135
SCREEN VOLTS = 67.5



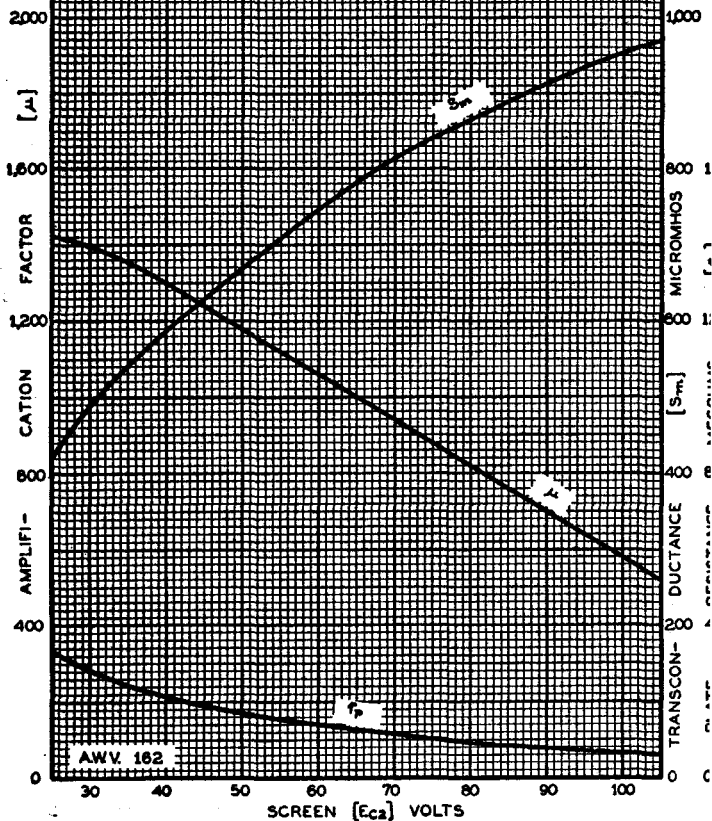
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1K7-G

AVERAGE CHARACTERISTICS

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

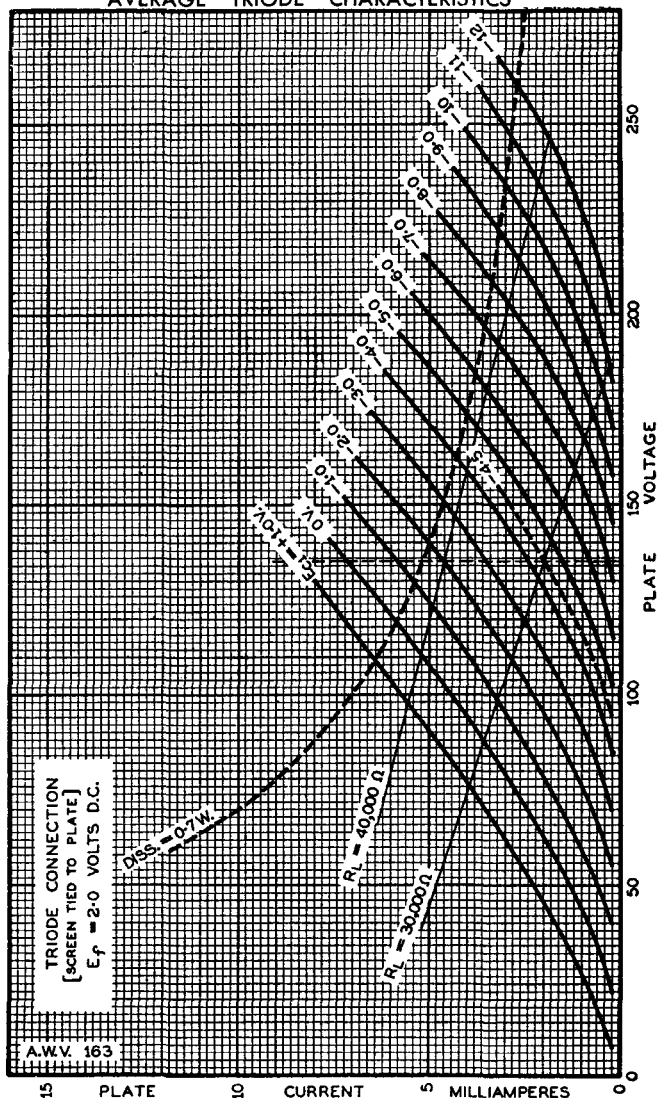


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AVERAGE TRIODE CHARACTERISTICS

1K7-G
SHEET 4

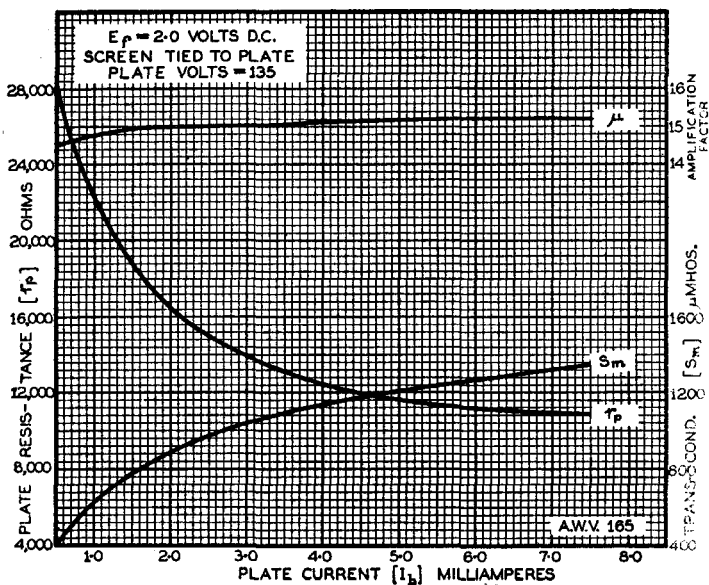
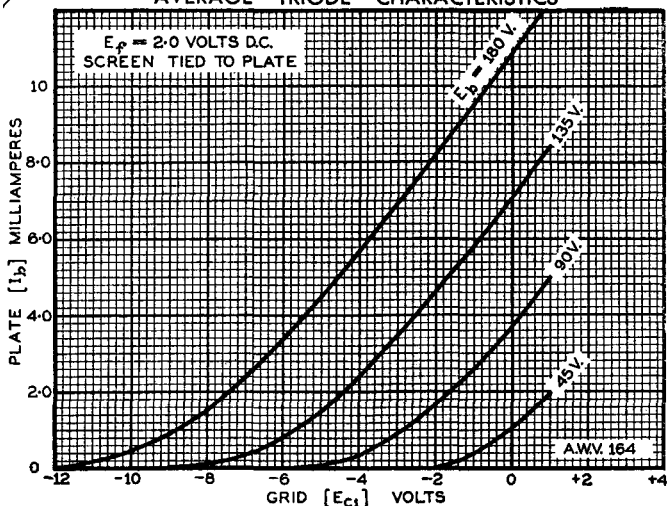


1K7-G

RADIOTRON

1K7-G

AVERAGE TRIODE CHARACTERISTICS



RADIOTRON

RESISTANCE COUPLED PENTODES

(Continued)

RESISTANCE COUPLED PENTODES									
GROUP IV.									
Type	Total Supply	Grid Bias Volts (Bat- tery Types)	Screen Dropping Resistor (Megohms)	Cathode Bias Resis- tor Ohms (A.C. Types)	Plate Load Resistor (Megohms)	Following Grid Resistor (Megohms)	RATIO Out- put/Input Voltages at 400~ 0.25V. Input	Decibels Gain per Stage at 400~	Peak Volt- age 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
	180	-1.5	1.0	—	0.25	0.5	75	37.5	36
1K6 1K7-G }							62.5	35.9	30
							88.5	39.0	48
							74	37.4	40
	90	-1.5	1.0	—	0.25	0.5	54	34.7	22
	135	-1.5	1.0	—	0.25	0.5	45	33.1	18
	180	-1.5	1.0	—	0.25	0.5	76	37.6	34
						63	36.0	28	
							83	38.4	45
						0.5	69	36.8	38
GROUP V.									
6C6 6J7-G 5Y 1603 }		—	0.3	2,000	0.1	1.0	98	39.8	85
						0.5	82	38.3	78
	250					0.25	70	36.9	67
	400	—	0.3	2,000	0.1	1.0	105	41.4	135
	*					0.5	92	39.3	124
						0.25	80	38.1	106