834

R-F POWER AMPLIFIER

Filament	Thoriated Tungsten	
Voltage	7.5	a-c or d-c volts
Current	3.1	amp. ←
Amplification Factor	10.5	
Direct Interelectrode Capacitances:		
Grid to Plate	2.6	μμf
Grid to Filament	2.2	μμf
Plate to Filament	0.6	μμf
Maximum Overall Length		6-7/8"
Maximum Diameter		2-11/16"
Bulb		S-21
Base		Medium 4-Pin, Bayonet
RCA Socket (Type UR-542A)		Stock No.9919

Cooling- Forced air from fan directed at middle and upper portions of bulb is recommended for all classes of service above 60 Mc.

Maximum Ratings Are Absolute Values

MAXIMUM RATINGS and TYPICAL OPERATING CONDITIONS

R-F POWER AMPLIFIER - Class B Telephony

Carrier conditions per tube for use with a max. modulation factor of 1.0

D-C Plate Voltage			1250 max.	volts
D-C Plate Current			100 max.	ma.
Plate Input			75 max.	watts
Plate Dissipation			50 max.	watts
Typical Operation:				
D-C Plate Voltage	750	1000	1250	volts
D-C Grid Voltage #	-70	-90	-115	volts
Peak R-F Grid Voltage	90	100	115	volts
D-C Plate Current	50	50	50	ma.
D-C Grid Current **	1.0	0.5	0 approx.	ma.
Driving Power o **	3.3	3.1	3.0 approx.	watts
Power Output	11	16	20 approx.	watts

PLATE-MODULATED R-F POWER AMPLIFIER - Class C Telephony

Carrier conditions per tube for use with a max. modulation factor of 1.0

D-C Plate Voltage			1000 max.	volts
D-C Grid Voltage			-400 max.	volts
D-C Plate Current			100 max.	ma.
D-C Grid Current			20 max.	ma.
Plate Input			100 max.	watts
Plate Dissipation			35 max.	watts
Typical Operation:				
D-C Plate Voltage		750	1000	volts
D-C Grid Voltage *		14500	17700	ohms
		-290	-310	volts
Peak R-F Grid Voltage		415	435	volts
D-C Plate Current		90	90	ma.
D-C Grid Current **		20	17.5 approx.	ma.
Driving Power **		7.5	6.5 approx.	watts
Power Output		42	58 approx.	watts

* Obtained by grid-leak resistor or by partial self-bias methods.
o At crest of a-f cycle with modulation factor of 1.0.
**, #: See next page. ← Indicates a change.

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R-F POWER AMPLIFIER

(continued from preceding page)

R-F POWER AMPLIFIER & OSCILLATOR - Class C Telegraphy

Key-down conditions per tube without modulation##

D-C Plate Voltage			1250 max.	volts
D-C Grid Voltage			-400 max.	volts
D-C Plate Current			100 max.	ma.
D-C Grid Current			20 max.	ma.
Plate Input			125 max.	watts
Plate Dissipation			50 max.	watts
Typical Operation:				
D-C Plate Voltage	750	1000	1250	volts
D-C Grid Voltage †	-175	-200	-225	volts
	8750	11400	15000	ohms
	1600	1850	2150	ohms
Peak R-F Grid Voltage	300	325	350	volts
D-C Plate Current	90	90	90	ma.
D-C Grid Current **	20	17.5	15	approx. ma.
Driving Power **	5.5	5.0	4.5	approx. watts
Power Output	42	58	75	approx. watts

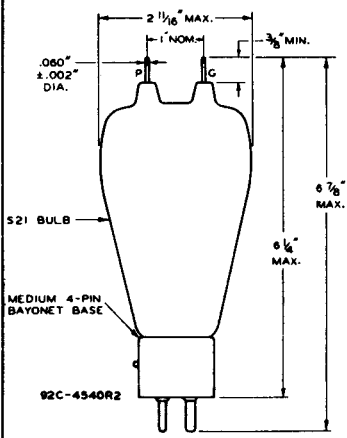
\# For a-c filament supply. If d.c. is used, the stated voltage values should be decreased by approx. one-half of the rated filament voltage.

† Obtained from fixed supply, by grid resistor (8750, 11400, 15000), or cathode resistor (1600, 1850, 2150).

Modulation essentially negative may be used if the positive peak of the audio-frequency envelope does not exceed 115% of the carrier conditions.

** Subject to wide variations as explained on sheet TRANS. TUBE RATINGS.

Data on operating frequencies for the 834 are given on the sheet TRANS. TUBE RATINGS vs FREQUENCY. See also "Cooling" under this type.

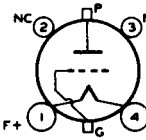


NOTE: Connections to tips P and G should be made by means of radiating connectors to which flexible circuit leads should be clamped.

TUBE MOUNTING POSITION

VERTICAL: Base down.
HORIZONTAL: No.

BOTTOM VIEW OF SOCKET CONNECTIONS



Pin 1 - Filament +
Pin 2 - No Connection
Pin 3 - No Connection
Pin 4 - Filament -
P - Plate
G - Grid

→ Indicates a change.

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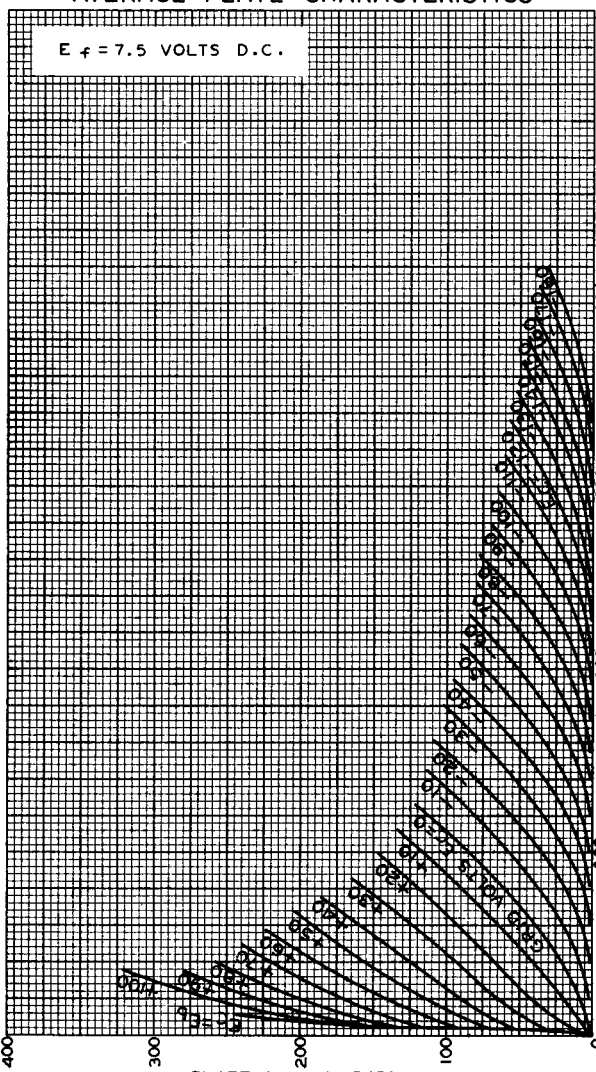
AVERAGE PLATE CHARACTERISTICS



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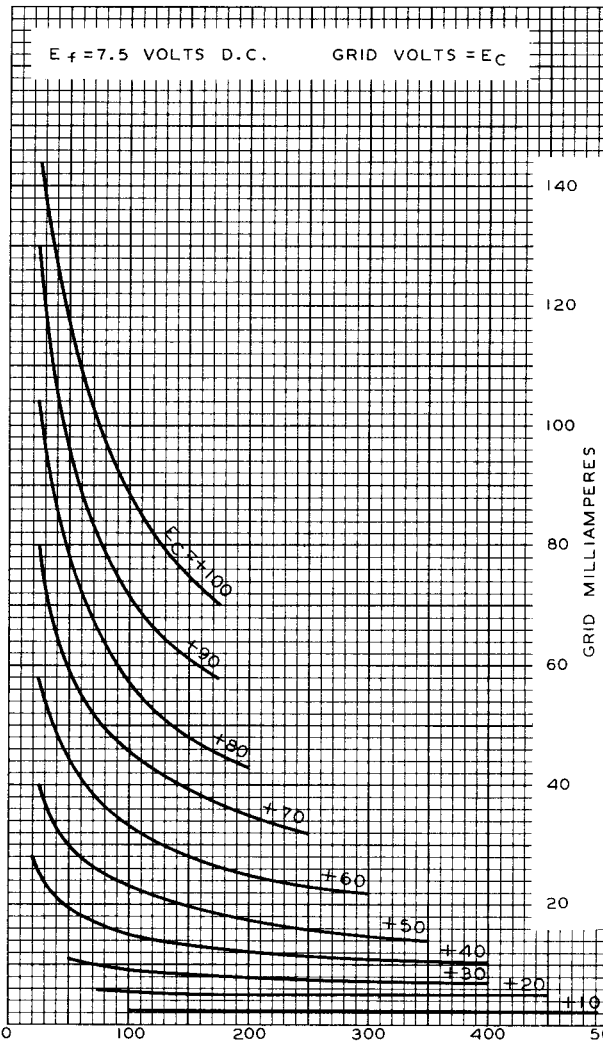
AVERAGE CHARACTERISTICS



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