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SCREEN GRID R-F POWER AMPLIFIER

Filament	Thoriated Tungsten	
Voltage	10	a-c or d-c volts
Current	3.25	amp.
Amplification Factor	200 approx.	
Transconductance for plate current of 50 ma.	1100	μmhos
Direct Interelectrode Capacitances:		
Grid to Plate	0.08* max.	μμf
Input	7.75	μμf
Output	7.5	μμf
Maximum Overall Length		8-3/4"
Maximum Radius		4-1/4"
Bulb		GT-30 with arm
Base	Medium 4-Pin Ceramic, Bayonet	
RCA Socket		Type UR-542-A ←

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			3000 max.	volts
D-C Screen Voltage			500 max.	volts ←
D-C Plate Current			85 max.	ma.
Plate Input			150 max.	watts
Screen Input			10 max.	watts
Plate Dissipation			100 max.	watts
Typical Operation:				
D-C Plate Voltage	2000	3000		volts
D-C Screen Voltage □	300	300		volts
D-C Grid Voltage	-50	-50		volts
D-C Plate Current	60	43		ma.
Power Output	30	40	approx.	watts

□ Use of series screen resistor is not recommended.

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			2000 max.	volts
D-C Screen Voltage			500 max.	volts ←
D-C Grid Voltage			-800 max.	volts
D-C Plate Current			85 max.	ma.
D-C Grid Current			40 max.	ma.
Plate Input			170 max.	watts
Screen Input			6.7 max.	watts
Plate Dissipation			67 max.	watts
Typical Operation:				
D-C Plate Voltage	1500	1800	2000	volts
D-C Screen Voltage ▲	60000	80000	100000	ohms ←
	300	300	220	volts
D-C Grid Voltage ¶	7500	7500	5300	ohms ←
	-225	-225	-200	volts

* With external shielding.
▲ Obtained from modulated plate-voltage supply through resistor or from modulated fixed supply.
¶ Obtained by grid-leak resistor or by partial self-bias methods.
← indicates a change.

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SCREEN GRID R-F POWER AMPLIFIER

(continued from preceding page)

Peak R-F Grid Voltage	–	–	500	volts
D-C Plate Current	70	67	85	ma.
D-C Screen Current	–	–	25	ma.
D-C Grid Current **	30	30	38	approx.ma.
Driving Power **	15	15	17	approx.watts
Power Output	45	60	105	approx.watts

R-F POWER AMPLIFIER & OSCILLATOR – Class C Telegraphy

Key-down conditions per tube without modulation#

D-C Plate Voltage	3000 max.	volts
→ D-C Screen Voltage	500 max.	volts
D-C Grid Voltage	-800 max.	volts
D-C Plate Current	150 max.	ma.
D-C Grid Current	40 max.	ma.
Plate Input	300 max.	watts
Screen Input	10 max.	watts
Plate Dissipation	100 max.	watts

Typical Operation:

D-C Plate Voltage	1500	2000	2500	3000	volts
D-C Screen Voltage □	300	300	300	300	volts
→ D-C Grid Voltage •	10000	10000	10000	10000	ohms
	-150	-150	-150	-150	volts
D-C Plate Current	90	90	90	85	ma.
D-C Grid Current **	15	15	15	15	approx.ma.
Driving Power **	7	7	7	7	approx.watts
Power Output	60	100	135	165	approx.watts

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.

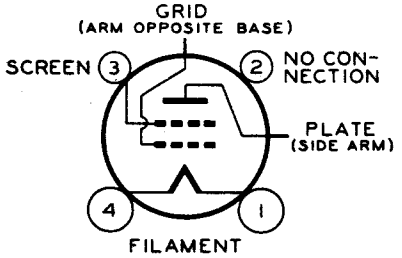
□ Use of series resistor is not recommended.

• Obtained by grid-leak resistor or other self- or fixed-bias method.

For use of the 860 at the higher frequencies, refer to sheet TRANS. TUBE RATINGS vs FREQUENCY.

OUTLINE DIMENSIONS for the 860 are the same as for the 852.

TUBE SYMBOL & TOP VIEW OF SOCKET CONNECTIONS



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TUBE MOUNTING POSITION

VERTICAL: Base down
HORIZONTAL: NO

→ Indicates a change.

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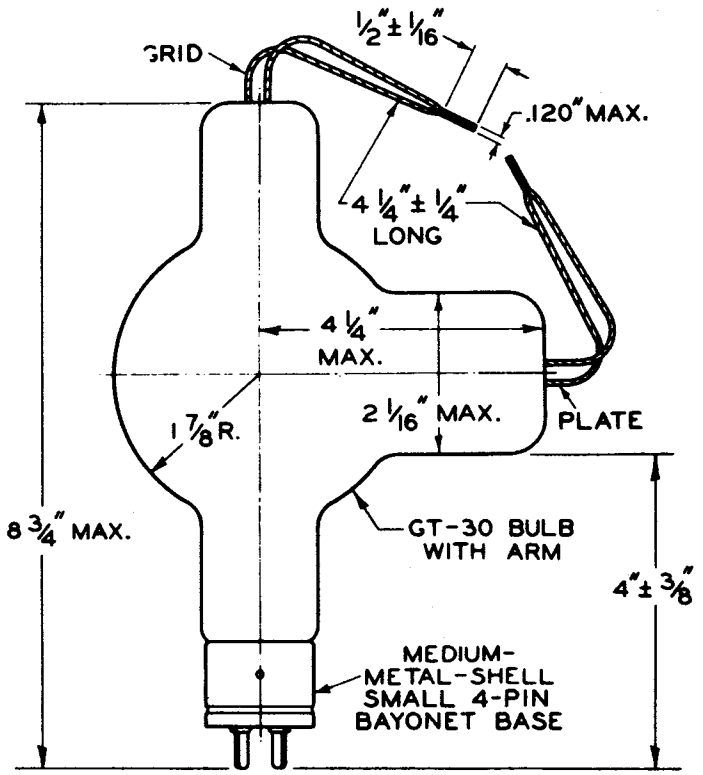
POWER TETRODE

For use of the 860 at the higher frequencies, refer to sheet TRANS. TUBE RATINGS vs FREQUENCY.



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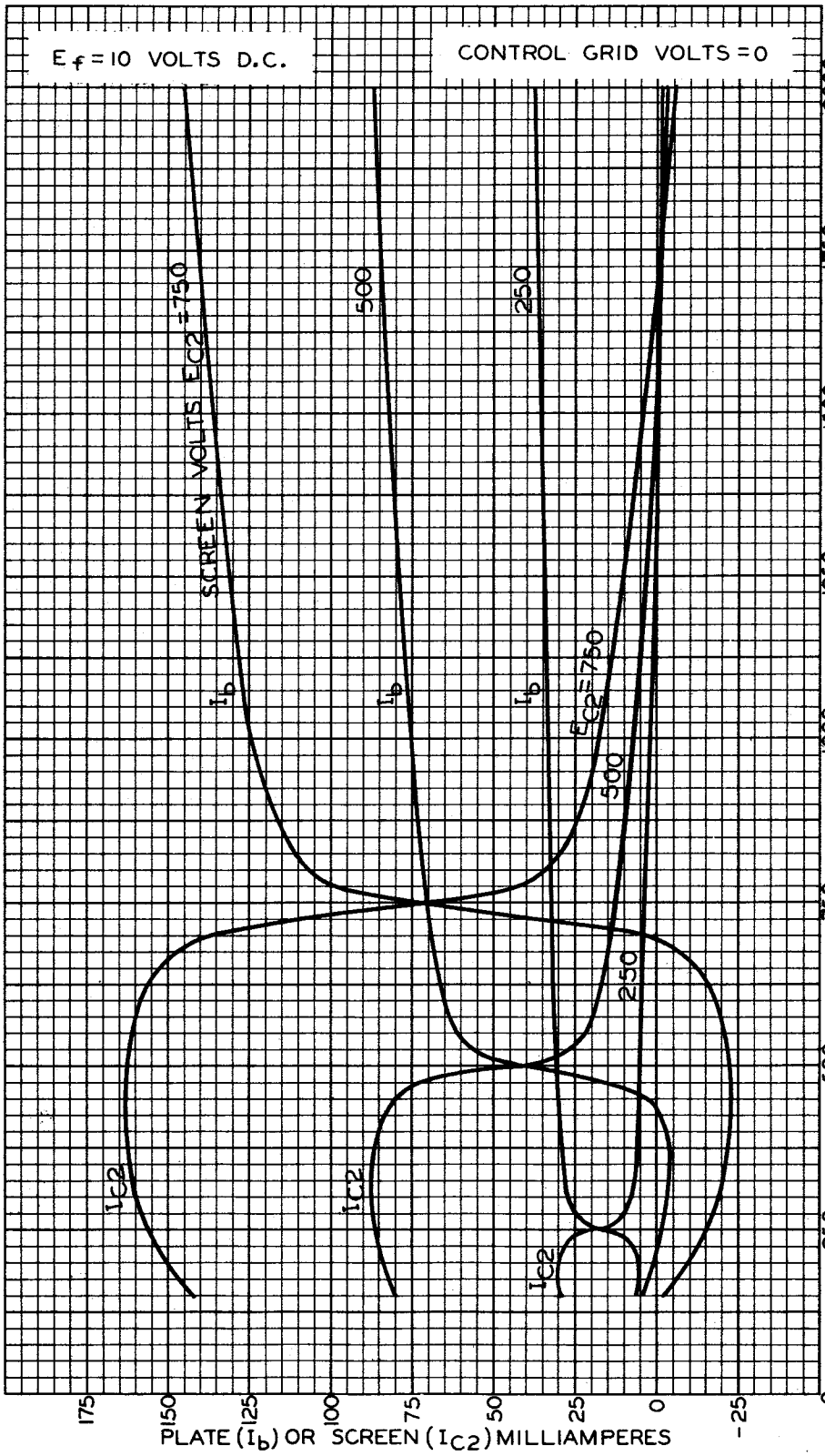
AVERAGE PLATE CHARACTERISTICS



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AVERAGE PLATE CHARACTERISTICS