865

SCREEN GRID R-F POWER AMPLIFIER

Filament	Thoriated Tungsten	
Voltage	7.5	a-c or d-c volts
Current	2.0	amp.
Amplification Factor	150 approx.	
Mutual Conductance for plate current of 18 ma.	750	μmhos
Direct Interelectrode Capacitances:		
Grid to Plate	0.10* maximum	μμf
Input	8.5	μμf
Output	8.0	μμf
Maximum Overall Length		5-3/4"
Maximum Diameter		2-1/16"
Bulb		ST-16
Cap		Small Metal
Base		Medium 4-Pin Bayonet

MAXIMUM RATINGS and TYPICAL OPERATING CONDITIONS

R-F POWER AMPLIFIER - Class B (Telephony)

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

D-C Plate Voltage		750 max.	volts
D-C Screen Voltage		175 max.	volts
D-C Plate Current		30 max.	ma.
R-F Grid Current		4 max.	amp.
Plate Input		22.5 max.	watts
Screen Input		3 max.	watts
Plate Dissipation		15 max.	watts
Typical Operation:			
Filament Voltage	7.5	7.5	a-c volts
D-C Plate Voltage	500	750	volts
D-C Screen Voltage	125	125	volts
D-C Grid Voltage	-30	-30	volts
D-C Plate Current	30	22	ma.
D-C Grid Current	5	3	approx. ma.
Driving Power ° **	2	1.5	approx. watts
Power Output	3	4.5	approx. watts

° At crest of a-f cycle with modulation factor of 1.0.

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

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

D-C Plate Voltage	500 max.	volts
D-C Screen Voltage	175 max.	volts
D-C Grid Voltage	-200 max.	volts
D-C Plate Current	60 max.	ma.
D-C Grid Current	15 max.	ma.
R-F Grid Current	4 max.	amp.

* With external shielding.

** See next page.

(continued on next page)

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SCREEN GRID R-F POWER AMPLIFIER

(continued from preceding page)

Plate Input			30 max.	watts
Screen Input			2 max.	watts
Plate Dissipation			10 max.	watts
Typical Operation:				
Filament Voltage	7.5	7.5	a-c	volts
D-C Plate Voltage	375	500		volts
D-C Screen Voltage	125	125		volts
D-C Grid Voltage	-120	-120		volts
D-C Plate Current	50	40		ma.
D-C Grid Current **	11	9	approx.	ma.
Driving Power **	3	2.5	approx.	watts
Power Output	8.5	10	approx.	watts

R-F POWER AMPLIFIER & OSCILLATOR - Class C Telegraphy

Key-down conditions per tube without modulation #

D-C Plate Voltage				750 max.		volts
D-C Screen Voltage				175 max.		volts
D-C Grid Voltage				-200 max.		volts
D-C Plate Current				60 max.		ma.
D-C Grid Current				15 max.		ma.
R-F Grid Current				5 max.		amp.
Plate Input				45 max.		watts
Screen Input				3 max.		watts
Plate Dissipation				15 max.		watts
Typical Operation:						
Filament Voltage	7.5	7.5	7.5	7.5	a-c	volts
D-C Plate Voltage	375	500	625	750		volts
D-C Screen Voltage	125	125	125	125		volts
D-C Grid Voltage	-80	-80	-80	-80		volts
D-C Plate Current	55	50	45	40		ma.
D-C Grid Current **	11	9	6	5.5	approx.	ma.
Driving Power **	2.5	2.0	1.2	1.0	approx.	watts
Power Output	8.5	10	14	16	approx.	watts

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

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

For use of the 865 at the higher frequencies, refer to sheet TRANS. TUBE RATINGS vs. FREQUENCY.

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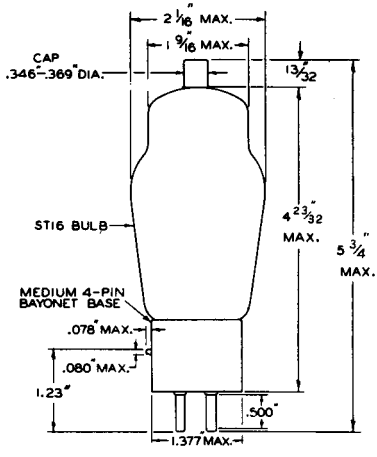
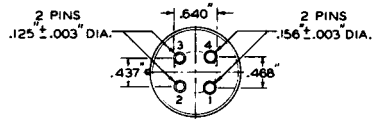
SCREEN GRID R-F POWER AMPLIFIER

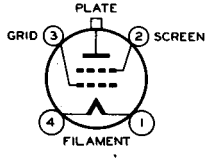




BOTTOM VIEW OF BASE

92S-4272R3

TUBE SYMBOL & TOP VIEW OF SOCKET CONNECTIONS



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RCA

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AVERAGE PLATE CHARACTERISTICS