211

POWER TRIODE

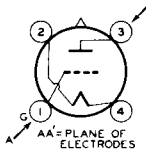
GENERAL DATA

Electrical:

Filament, Thoriated-Tungsten:			
Voltage	10		ac or dc volts
Current	3.25		amp
Amplification Factor	12		
Direct Interelectrode Capacitances:			
Grid to Plate	14		μμf
Grid to Filament	5.4		μμf
Plate to Filament	4.8		μμf

Mechanical:

Mounting Position	Vertical, base down; or Horizontal, with pins 1 and 3 in vertical plane
Maximum Overall Length	7-7/8"
Maximum Diameter	2-5/16"
Bulb	T-18
Base	Medium-Metal-Shell Jumbo 4-Pin, Bayonet
Basing Designation for BOTTOM VIEW	4AZ



Pin 1 – Grid
Pin 2 – Filament
Pin 3 – Plate
Pin 4 – Filament

AF POWER AMPLIFIER & MODULATOR—Class A_1

Maximum CCS• Ratings, *Absolute Values*:

DC PLATE VOLTAGE	1250 max.	volts
PLATE DISSIPATION	75 max.	watts

Typical Operation and Characteristics:

DC Plate Voltage	750	1000	1250	volts
DC Grid Voltage#	−46	−61	−80	volts
Peak AF Grid Voltage	41	56	75	volts
DC Plate Current	34	53	60	ma
Plate Resistance	4400	3800	3600	ohms
Transconductance	2750	3150	3300	μmhos
Load Resistance	8800	7600	9200	ohms
2nd Harmonic Distortion	5	5	5	%
Power Output	5.6	12	19.7	watts

AF POWER AMPLIFIER & MODULATOR—Class B

Maximum CCS• Ratings, *Absolute Values*:

DC PLATE VOLTAGE	1250 max.	volts

•,#: See next page.

← Indicates a change.

RCA

211

POWER TRIODE

MAX.-SIGNAL DC PLATE CURRENT*		175 max.	ma
MAX.-SIGNAL PLATE INPUT*		220 max.	watts
PLATE DISSIPATION*		100 max.	watts

Typical Operation:

Values are for 2 tubes

DC Plate Voltage	1000	1250	volts
DC Grid Voltage#	-77	-100	volts
Peak AF Grid-to-Grid Voltage	380	410	volts
Zero-Signal DC Plate Current	20	20	ma
Max.-Signal DC Plate Current	320	320	ma
Effective Load Resistance (plate-to-plate)	6900	9000	ohms
Max.-Signal Driving Power (Approx.)	7.5	8	watts
Max.-Signal Power Output (Approx.)	200	260	watts

RF POWER AMPLIFIER—Class B Telephony

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

Maximum CCS● Ratings, *Absolute Values*:

DC PLATE VOLTAGE	1250 max.	volts
DC PLATE CURRENT	150 max.	ma
PLATE INPUT	150 max.	watts
PLATE DISSIPATION	100 max.	watts

Typical Operation:

DC Plate Voltage	1000	1250	volts
DC Grid Voltage#	-77	-100	volts
Peak RF Grid Voltage	125	125	volts
DC Plate Current	130	106	ma
DC Grid Current (Approx.)□	5	1	ma
Driving Power (Approx.)▲□	10	7.5	watts
Power Output (Approx.)	40	42.5	watts

PLATE-MODULATED RF POWER AMPLIFIER—Class C Telephony

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

Maximum CCS● Ratings, *Absolute Values*:

DC PLATE VOLTAGE	1000 max.	volts
DC GRID VOLTAGE	-400 max.	volts
DC PLATE CURRENT	175 max.	ma
DC GRID CURRENT	50 max.	ma
PLATE INPUT	175 max.	watts

* Averaged over any audio-frequency cycle of sine-wave form.

\# For ac filament supply.

▲ At crest of audio-frequency cycle with modulation factor of 1.0.

●,□: See next page.

TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

211

POWER TRIODE

PLATE DISSIPATION.	67 max.		watts

Typical Operation:

DC Plate Voltage	750	1000	volts
DC Grid Voltage.	−200	−260	volts
Peak RF Grid Voltage	350	410	volts
DC Plate Current	150	150	ma
DC Grid Current (Approx.)□	35	35	ma
Driving Power (Approx.)□	12	14	watts
Power Output (Approx.)	65	100	watts

RF POWER AMPLIFIER & OSCILLATOR—Class C Telegraphy

Key-down conditions per tube without modulation□□

Maximum CCS• Ratings, *Absolute Values*:

DC PLATE VOLTAGE	1250 max.	volts
DC GRID VOLTAGE.	−400 max.	volts
DC PLATE CURRENT	175 max.	ma
DC GRID CURRENT.	50 max.	ma
PLATE INPUT.	220 max.	watts
PLATE DISSIPATION.	100 max.	watts

Typical Operation:

DC Plate Voltage	750	1000	1250	volts
DC Grid Voltage.	−135	−175	−225	volts
Peak RF Grid Voltage . . .	275	315	375	volts
DC Plate Current	150	150	150	ma
DC Grid Current (Approx.)□	18	18	18	ma
Driving Power (Approx.)□ .	5	6	7	watts
Power Output (Approx.) . .	65	100	130	watts

• Continuous Commercial service.

□ For effect of load resistance on grid current and driving power, refer to TUBE RATINGS—*Grid Current and Driving Power* in General Section.

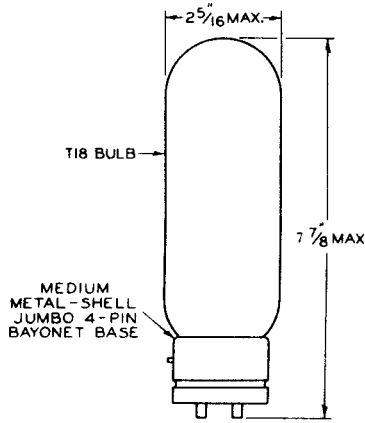
□□ Modulation essentially negative may be used if the positive peak of the audio-frequency envelope does not exceed 115% of the carrier conditions.

Data on operating frequencies for the 211 are given on the sheet TRANS. TUBE RATINGS vs FREQUENCY.

RCA

211

POWER TRIODE

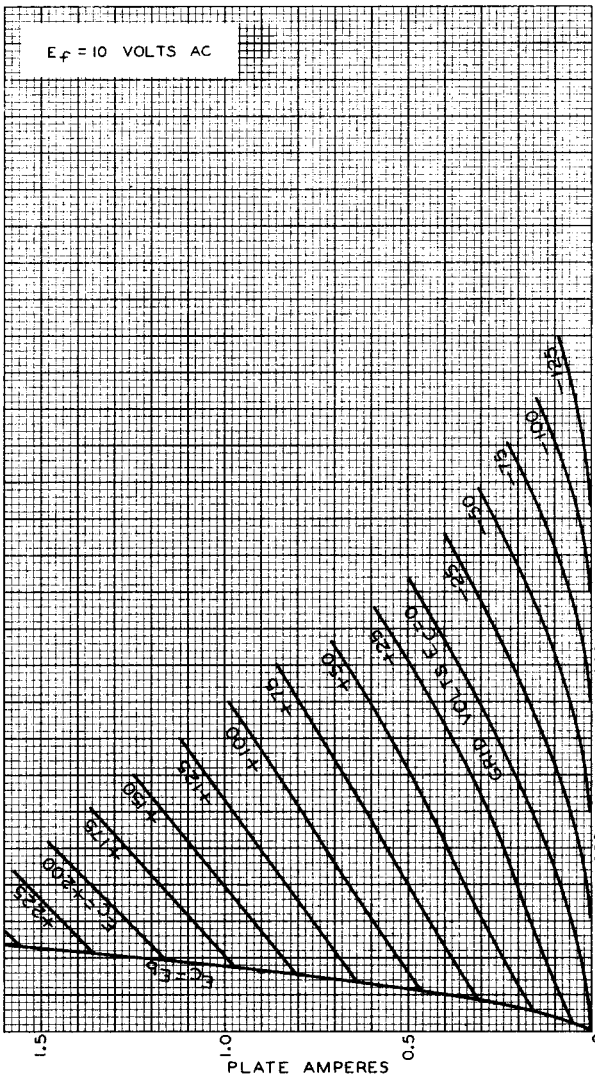


92CM-7313

RCA

211

AVERAGE PLATE CHARACTERISTICS



JAN. 10, 1936

TUBE DEPARTMENT

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

92CM-4537

211

TYPICAL CHARACTERISTICS