5556
AMPLIFIER TRIODE

GENERAL DATA

Electrical:

Filament:		
Voltage	4.5	volts
Current	1.1	amp
Amplification Factor	8.5	
Direct Interelectrode Capacitances (Approx.):		
Grid to Plate	8.3	μμf
Grid to Cathode	4.0	μμf
Plate to Cathode	3.0	μμf

Mechanical:

Mounting Position	Vertical, or Horizontal with Plane of Electrodes Vertical
Maximum Overall Length	5-5/8"
Maximum Diameter	2-3/16"
Bulb	S-17
Base	Medium 4-Pin Bayonet

AF POWER AMPLIFIER AND MODULATOR - Class A

Maximum Ratings, Absolute Values:

DC PLATE VOLTAGE	350 max.	volts
PLATE DISSIPATION	7.5 max.	watts

Typical Operation:

DC Plate Voltage	350	volts
DC Grid Voltage•	-30	volts
Peak AF Grid Voltage (Approx.)	30	volts
DC Plate Current	9	ma.
Plate Resistance	8700	ohms
Transconductance	980	μmhos
Load Resistance	18000	ohms
Power Output (5% second harmonic)	0.6	watts

RF POWER AMPLIFIER - Class B Telephony

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

Maximum Ratings, Absolute Values:

DC PLATE VOLTAGE	350 max.	volts
DC PLATE CURRENT	40 max.	ma.
PLATE INPUT	14 max.	watts
PLATE DISSIPATION	10 max.	watts

Typical Operation:

DC Plate Voltage	350	volts
DC Grid Voltage•	-40	volts
Peak RF Grid Voltage	90	volts
DC Plate Current	32	ma.

• With dc filament excitation.

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5556

AMPLIFIER TRIODE

Driving Power (Approx.) #	0.1	watt
Power Output	2	watts

PLATE-MODULATED RF POWER AMPLIFIER - Class C Telephony

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

Maximum Ratings, Absolute Values:

DC PLATE VOLTAGE	350 max.	volts
DC GRID VOLTAGE	-150 max.	volts
DC PLATE CURRENT	40 max.	ma.
DC GRID CURRENT	10 max.	ma.
PLATE INPUT	14 max.	watts
PLATE DISSIPATION	7 max.	watts

Typical Operation:

DC Plate Voltage	300	volts
DC Grid Voltage •	-100	volts
Peak RF Grid Voltage (Approx.)	140	volts
DC Plate Current	30	ma.
DC Grid Current	2	ma.
Driving Power (Approx.)	0.3	watt
Power Output (Approx.)	4	watts

RF POWER AMPLIFIER & OSCILLATOR - Class C Telegraphy

Key-down conditions per tube without modulation##

Maximum Ratings, Absolute Values:

DC PLATE VOLTAGE	350 max.	volts
DC GRID VOLTAGE	-150 max.	volts
DC PLATE CURRENT	40 max.	ma.
DC GRID CURRENT	10 max.	ma.
PLATE INPUT	14 max.	watts
PLATE DISSIPATION	10 max.	watts

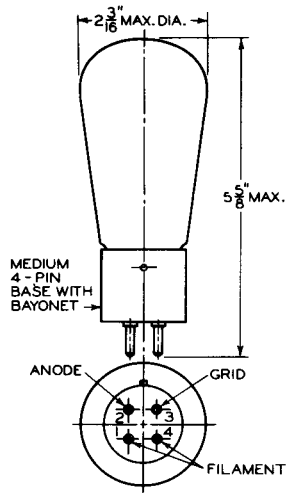
Typical Operation:

DC Plate Voltage	350	volts
DC Grid Voltage •	-80	volts
Peak RF Grid Voltage	130	volts
DC Plate Current	35	ma.
DC Grid Current	2	ma.
Driving Power (Approx.)	0.25	watt
Power Output (Approx.)	6	watts

• With dc filament excitation.
At crest of af cycle with modulation factor of 1.
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 5556 are given on the sheet TRANS. TUBE RATINGS vs FREQUENCY.

5556
AMPLIFIER TRIODE



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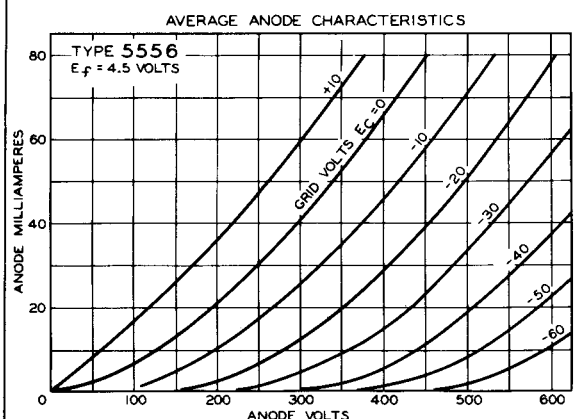

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TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

5556
POWER TRIODE

Useful at frequencies up to 30 Mc

GENERAL DATA

Electrical:

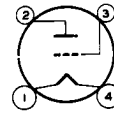
Filament, Thoriated Tungsten:		
Voltage	4.5	ac or dc volts
Current	1.1	amp
Amplification Factor, for plate volts = 350, grid volts = -20, and plate ma = 19	8.5	
Direct Interelectrode Capacitances:		
Grid to plate	6.7	μμf
Grid to filament	2.3	μμf
Plate to filament	2.2	μμf

Mechanical:

Mounting Position	Vertical, base down or up, or Horizontal with pins 1 and 4 in vertical plane
Maximum Overall Length	4-1/2"
Maximum Diameter	1-5/8"
Weight (Approx.)	2 oz
Base	Medium-Shell Small 4-Pin with Bayonet (JETEC No. A4-10)
Basing Designation for BOTTOM VIEW	4D

Pin 1 – Filament

Pin 2 – Plate



Pin 3 – Grid

Pin 4 – Filament

AF POWER AMPLIFIER & MODULATOR -- Class A

Maximum Ratings, *Absolute Values:*

DC PLATE VOLTAGE	350 max.	volts
PLATE DISSIPATION	7.5 max.	watts

Typical Operation:

DC Plate Voltage	350	volts
DC Grid Voltage●	-30	volts
Peak AF Grid Voltage (Approx.)	30	volts
DC Plate Current	9	ma
Plate Resistance (Approx.)	8700	ohms
Load Resistance	18000	ohms
Second Harmonic Distortion	5	%
Power Output	0.6	watt

RF POWER AMPLIFIER -- Class B Telephony

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

Maximum Ratings, *Absolute Values:*

DC PLATE VOLTAGE	350 max.	volts

●: See next page.

← indicates a change.

5556
POWER TRIODE

DC PLATE CURRENT	40 max.	ma
PLATE INPUT	14 max.	watts
PLATE DISSIPATION	10 max.	watts

Typical Operation:

DC Plate Voltage	350	volts
DC Grid Voltage●	-40	volts
Peak RF Grid Voltage	90	volts
DC Plate Current	32	ma
Driving Power (Approx.)*	0.1	watt
Power Output	2	watts

PLATE-MODULATED RF POWER AMPLIFIER -- Class C Telephony

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

Maximum Ratings, *Absolute Values:*

DC PLATE VOLTAGE	350 max.	volts
DC GRID VOLTAGE	-150 max.	volts
DC PLATE CURRENT	40 max.	ma
DC GRID CURRENT	10 max.	ma
PLATE INPUT	14 max.	watts
PLATE DISSIPATION	7 max.	watts

Typical Operation:

DC Plate Voltage	300	volts
DC Grid Voltage●	-100	volts
Peak RF Grid Voltage (Approx.)	140	volts
DC Plate Current	30	ma
DC Grid Current (Approx.)	2	ma
Driving Power (Approx.)	0.3	watt
Power Output (Approx.)	4	watts

RF POWER AMPLIFIER & OSCILLATOR -- Class C Telegraphy□ and RF POWER AMPLIFIER -- Class C FM Telephony

Maximum Ratings, *Absolute Values:*

DC PLATE VOLTAGE	350 max.	volts
DC GRID VOLTAGE	-150 max.	volts
DC PLATE CURRENT	40 max.	ma
DC GRID CURRENT	10 max.	ma
PLATE INPUT	14 max.	watts
PLATE DISSIPATION	10 max.	watts

Typical Operation:

DC Plate Voltage	350	volts
DC Grid Voltage●	-80	volts
Peak RF Grid Voltage	130	volts

● With dc filament excitation.

*,□: See next page.

TUBE DIVISION
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5556

POWER TRIODE

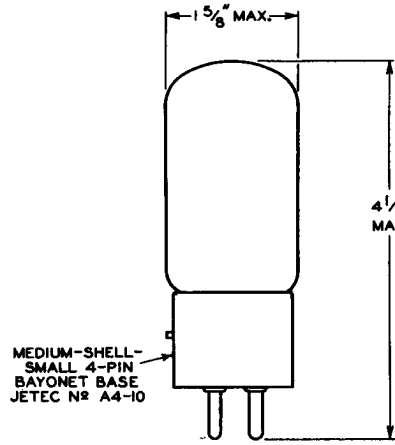
DC Plate Current	35	ma
DC Grid Current (Approx.)	2	ma
Driving Power (Approx.)	0.25	watt
Power Output (Approx.)	6	watts

At crest of af cycle with modulation factor of 1.

□ Key-down conditions per tube without amplitude modulation. Amplitude modulation essentially negative may be used if the positive peak of the audio-frequency envelope does not exceed 115% of the carrier conditions.

MAXIMUM RATINGS vs OPERATING FREQUENCY

FREQUENCY	6	15	30	Mc
MAXIMUM PERMISSIBLE PERCENTAGE OF MAXIMUM RATED PLATE VOLTAGE AND PLATE INPUT:				
Class B Telephony	100	85	70	%
Class C Telephony	100	75	50	%
Class C Telegraphy	100	75	50	%



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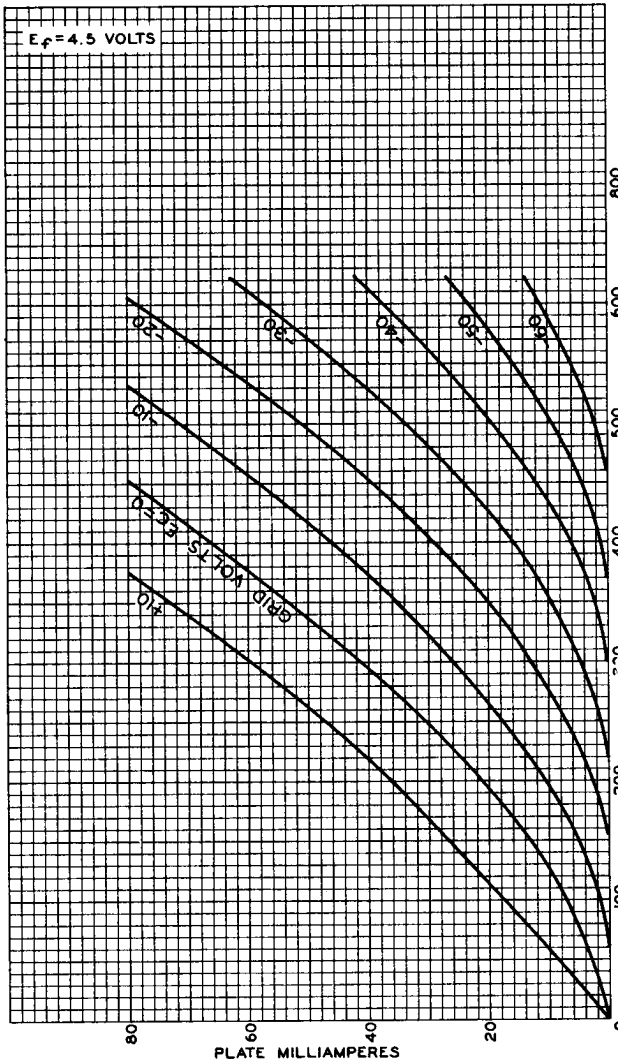
5556

AVERAGE PLATE CHARACTERISTICS



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