



**Maximum Circuit Values:**

Grid-No.1-Circuit Resistance:

For fixed-bias operation . . . . . 0.1 max. megohm  
For cathode-bias operation . . . . . 0.5 max. megohm

**AF POWER AMPLIFIER - Class A<sub>1</sub>**

*Triode Connection - Grid No.2 Connected to Plate*

**Maximum Ratings, Design-Center Values:**

PLATE VOLTAGE.	400	max.	volts
PLATE DISSIPATION.	26	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode.	200	max.	volts
Heater positive with respect to cathode.	200	max.	volts

**Typical Operation and Characteristics:**

Plate Voltage.	250	300	volts
Grid-No.1 (Control-Grid) Voltage.	-18	-20	volts
Peak AF Grid-No.1 Voltage.	18	20	volts
Zero-Signal Plate Current.	52	78	ma
Max.-Signal Plate Current.	58	85	ma
Amplification Factor . . . . .	8	-	
Transconductance . . . . .	5250	-	$\mu$ hos
Load Resistance. . . . .	4000	4000	ohms
Total Harmonic Distortion. . . . .	6	5.5	%
Max.-Signal Power Output . . . . .	1.4	1.8	watts

**Maximum Circuit Values:**

Zero-Signal Plate Current . . .	120	134	ma
Max.-Signal Plate Current . . .	140	155	ma
Zero-Signal Grid-No.2 Current.	10	11	ma
Max.-Signal Grid-No.2 Current.	16	17	ma
Plate Resistance (Approx., per tube). . . . .	24500	23500	ohms
Transconductance (Per tube) . .	5500	5700	$\mu$ hos
Effective Load Resistance (Plate to plate) . . . . .	5000	5000	ohms
Total Harmonic Distortion . . .	2	2	%
Max.-Signal Power Output . . .	14.5	17.5	watts
<b>Maximum Circuit Values:</b>			
Grid-No.1-Circuit Resistance: For fixed-bias operation . . . . .	0.1 max.	megohm	
For cathode-bias operation . . . . .	0.5 max.	megohm	

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## BEAM POWER TUBE

### PUSH-PULL AF POWER AMPLIFIER - Class AB<sub>1</sub>

Triode Connection - Grid No. 2 Connected to Plate

#### Maximum Ratings, Design-Center Values:

PLATE VOLTAGE . . . . .	400 max.	volts
PLATE DISSIPATION . . . . .	26 max.	watts
<b>PEAK HEATER-CATHODE VOLTAGE:</b>		
Heater negative with respect to cathode .	200 max.	volts
Heater positive with respect to cathode .	200 max.	volts

#### Typical Operation:

Values are for 2 tubes

Plate Voltage . . . . .	400	volts
Grid-No. 1 (Control-Grid) Voltage† . . . . .	-45	volts
Peak AF Grid-No. 1-to-Grid-No. 1 Voltage . . . . .	90	volts
Zero-Signal Plate Current . . . . .	65	ma
Max.-Signal Plate Current . . . . .	130	ma
Effective Load Resistance (Plate to plate) . . . . .	4000	ohms
Total Harmonic Distortion . . . . .	4.4	%
Max.-Signal Power Output . . . . .	13.3	watts

#### Maximum Circuit Values:

Grid-No. 1-Circuit Resistance:†		
For fixed-bias operation . . . . .	0.1 max.	megohm
For cathode-bias operation . . . . .	0.5 max.	megohm

### PUSH-PULL AF POWER AMPLIFIER - Class AB<sub>2</sub>

#### Maximum Ratings, Design-Center Values:

PLATE VOLTAGE . . . . .	400 max.	volts
GRID-No. 2 (SCREEN-GRID) VOLTAGE . . . . .	400 max.	volts
GRID-No. 2 INPUT . . . . .	3 max.	watts
PLATE DISSIPATION . . . . .	23 max.	watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode .	200 max.	volts
Heater positive with respect to cathode .	200 max.	volts

#### Typical Operation:

Values are for 2 tubes

Plate Voltage . . . . .	360	volts	
Grid-No. 2 Voltage . . . . .	225	volts	
Grid-No. 1 (Control-Grid) Voltage■ . . . . .	-18	-22.5	volts
Peak AF Grid-No. 1-to-Grid-No. 1 Voltage . . . . .	52	72	volts
Zero-Signal Plate Current . . . . .	78	88	ma

† The type of input coupling used should not introduce too much resistance in the grid-No. 1 circuit. Transformer- or impedance-coupling devices are recommended.

■ See next page.



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Max.-Signal Plate Current . . .	142	205	ma
Zero-Signal Grid-No.2 Current .	3.5	5	ma
Max.-Signal Grid-No.2 Current .	11	16	ma
Effective Load Resistance (Plate to plate). . . . .	6000	3800	ohms
Total Harmonic Distortion . . .	2	2	%
Max.-Signal Power Output. . . .	31	47	watts

**Maximum Circuit Values:**

## Grid-No.1-Circuit Resistance:

- For fixed-bias operation. . . . . 0.1 max. megohm  
For cathode-bias operation. . . . . Not recommended

- Driver stage should be capable of supplying the specified driving power at low distortion to the No.1 grids of the AB<sub>2</sub> stage. To minimize distortion, the effective resistance per grid-No.1 circuit of the AB<sub>2</sub> stage should be held at a low value. For this purpose, the use of transformer coupling is recommended.

Curves shown under Types 6L6, 6L6-G also apply to the 5881

