



RCA-6V6

BEAM POWER AMPLIFIER
(TENTATIVE DATA)

HEATER VOLTAGE (A.C. or D.C.)#	6.3	Volts
HEATER CURRENT	0.45	Ampere
MAXIMUM OVERALL LENGTH	3-1/4"	
MAXIMUM DIAMETER	1-5/16"	
BASE	Small Wafer Octal 7-Pin	

Static and Dynamic Characteristics

HEATER VOLTAGE	6.3	Volts
PLATE VOLTAGE	250	Volts
SCREEN VOLTAGE	250	Volts
GRID VOLTAGE	-12.5	Volts
AMPLIFICATION FACTOR	218	
PLATE RESISTANCE	52000	Ohms
TRANSCONDUCTANCE	4100	Micromhos
PLATE CURRENT	45	Milliamperes
SCREEN CURRENT	4.5	Milliamperes

MAXIMUM RATINGS and TYPICAL OPERATING CONDITIONS

As Single-Tube Amplifier - Class A₁*

PLATE VOLTAGE	250	max.	Volts
SCREEN VOLTAGE	250	max.	Volts
PLATE & SCREEN DISSIPATION (Total) #	12.5	max.	Watts
TYPICAL OPERATION:			
Plate Voltage	180	250	Volts
Screen Voltage	180	250	Volts
Grid Voltage ^o	-8.5	-12.5	Volts
Peak A-F Grid Voltage (Approx.)	8.5	12.5	Volts
Zero-Signal Plate Current	29	45	Milliamperes
Max.-Signal Plate Current	30	47	Milliamperes
Zero-Signal Screen Current	3	4.5	Milliamperes
Max.-Signal Screen Current	4	6.5	Milliamperes
Load Resistance	5500	5000	Ohms
Harmonic Distortion:			
Total	6	6	Per cent
Second	5.5	4.5	Per cent
Third	2.5	3.5	Per cent
Max.-Signal Power Output	2	4.25	Watts

As Push-Pull Amplifier - Class AB₁*

PLATE VOLTAGE	300	max.	Volts
SCREEN VOLTAGE	300	max.	Volts
PLATE & SCREEN DISSIPATION (Total) #	12.5	max.	Watts
TYPICAL OPERATION:			
<i>Values are for 2 tubes</i>			
Plate Voltage	250	300	Volts
Screen Voltage	250	300	Volts
Grid Voltage ^o	-15	-20	Volts
Peak A-F Grid-to-Grid Voltage	30	40	Volts
Zero-Signal Plate Current	70	78	Milliamperes
Max.-Signal Plate Current	79	90	Milliamperes
Zero-Signal Screen Current	5	5	Milliamperes
Max.-Signal Screen Current	12	13.5	Milliamperes
Load Resistance	10000	8000	Ohms
Harmonic Distortion:			
Total	4	4	Per cent
Third	3.5	3.5	Per cent
Max.-Signal Power Output	8.5	13	Watts

* Subscript 1 indicates that grid current does not flow during any part of the input cycle.

Precautions should be taken to insure that dissipation rating is not exceeded with expected line-voltage fluctuation, especially in case of fixed-bias operation.

The heater should be operated at 6.3 volts. Under maximum dissipation conditions, the heater voltage should never fluctuate so that it exceeds 7.0 volts. The potential difference between heater and cathode should be kept as low as possible.

^o The type of input coupling used should not introduce too much resistance in the grid circuit. Transformer- or impedance-coupling devices are recommended. When the grid circuit has a resistance not higher than 0.05 megohm, fixed bias may be used; for higher values, self-bias is required. With self-bias, the grid circuit may have a resistance not to exceed 0.5 megohm, provided the heater voltage is not allowed to rise more than 10% above the rated value under any condition of operation.

Pin Connections

Pin 1-Shell
Pin 2-Heater

Pin 3-Plate
Pin 4-Screen

Pin 5-Grid
Pin 7-Heater

Pin 8-Cathode

(Pin numbers are according to RMA system)