

Beam Power Tube

9-PIN MINIATURE TYPE
For High-Fidelity Audio-
Amplifier Applications

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage (AC or DC) $6.3 \pm 10\%$ volts

Current at 6.3 volts. 0.45 amp

Direct Interelectrode Capacitances:⁰

Grid No.1 to plate. 0.4 max. μf

Grid No.1 to cathode & grid No.3,
grid No.2, and heater 9 μf

Plate to cathode & grid No.3,
grid No.2, and heater 6 μf

Characteristics, Class A₁ Amplifier:

Plate Voltage 250 volts

Grid-No.2 Voltage 250 volts

Grid-No.1 Voltage -15 volts

Plate Resistance (Approx.) 73000 ohms

Transconductance. 4800 μmhos

Plate Current 46 ma

Grid-No.2 Current 3.5 ma

Grid-No.1 Voltage (Approx.) for
plate $\mu\text{a} = 100$ -40 volts

Mechanical:

Operating Position. Any

Maximum Overall Length. $3\text{--}1/16"$

Maximum Seated Length. $2\text{--}13/16"$

Length, Base Seat to Bulb Top (Excluding tip) $2\text{--}7/16" \pm 3/32"$

Maximum Diameter. $0.750"$ to $0.875"$

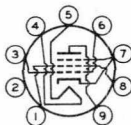
Dimensional Outline See *General Section*

Bulb. T6-1/2

Base. Small-Button Noval 9-Pin (JEDEC No.E9-1)

Basing Designation for BOTTOM VIEW. 9EU

Pin 1-Grid No.2
Pin 2-No Connection
Pin 3-Grid No.1
Pin 4-Heater
Pin 5-Heater



Pin 6-Grid No.1
Pin 7-Grid No.3,
Cathode
Pin 8-Grid No.2
Pin 9-Plate

PUSH-PULL AF POWER AMPLIFIER — Class AB₁

Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE 440 max. volts

GRID-No.2 (SCREEN-GRID) VOLTAGE 330 max. volts

← Indicates a change.



GRID-No.2 INPUT.	2	max.	watts
PLATE DISSIPATION.	12	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode.	200	max.	volts
Heater positive with respect to cathode.	200	max.	volts
BULB TEMPERATURE (At hottest point			
on bulb surface)	250	max.	°C

Typical Operation with Fixed Bias:

Values are for 2 tubes

Plate Voltage.	250	350	400	volts
Grid-No.2 Voltage.	250	280	290	volts
Grid-No.1 (Control-Grid) Voltage.	-15	-22	-25	volts
Peak AF Grid-No.1-to-Grid-No.1				
Voltage.	30	44	50	volts
Zero-Signal Plate Current.	92	58	50	ma
Max.-Signal Plate Current.	105	106	107	ma
Zero-Signal Grid-No.2 Current.	7	3.5	2.5	ma
Max.-Signal Grid-No.2 Current.	16	14	13.7	ma
Effective Load Resistance (Plate				
to plate).	8000	7500	8000	ohms
Total Harmonic Distortion.	2	1.5	2	%
Max.-Signal Power Output	12.5	20	24	watts

Typical Operation with Cathode Bias:

Values are for 2 tubes

Plate Supply Voltage	300	310	volts
Grid-No.2 Supply Voltage	300	310	volts
Cathode Resistor	230	270	ohms
Peak AF Grid-No.1-to-Grid-No.1 Voltage	48	55	volts
Zero-Signal Plate Current.	80	77	ma
Max.-Signal Plate Current.	96	92	ma
Zero-Signal Grid-No.2 Current.	6	5	ma
Max.-Signal Grid-No.2 Current.	14	14	ma
Effective Load Resistance (Plate to plate).	5500	6000	ohms
Total Harmonic Distortion.	2	4	%
Max.-Signal Power Output	15	17	watts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:

For fixed-bias operation	0.5 max.	megohm
For cathode-bias operation	1 max.	megohm

PUSH-PULL AF POWER AMPLIFIER — Class AB₁

Grid No.2 of each tube connected to tap on plate winding of output transformer

→ Maximum Ratings, Design-Maximum Values:

PLATE AND GRID-No.2 (SCREEN-GRID)			
SUPPLY VOLTAGE	410 max.	volts	

→ Indicates a change.