



ELECTRONIC TUBE REFERENCE

50HN5

Power - Beam (NOT sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
BEAMPOWER

High-perveance beam-power pentode with very high power sensitivity, developed for economical low-cost audio power amplifiers.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	7
NOMINAL HEATER	50 V / 150 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Beam Power	
PLATE RESISTANCE	7500 Ω
TRANSCONDUCTANCE	0.017 S
AMPLIFICATION FACTOR	13
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM SCREEN VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	12 W
MAXIMUM SCREEN DISSIPATION	2.5 W
MAXIMUM CATHODE CURRENT	120 mA
<i>Published source ratings and characteristics promoted where applicable; additional electrical and operating data retained as parameters.</i>	

High-perveance beam-power audio output tube with very high power sensitivity.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1964 RMA EIA

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1964 RMA EIA

Section 1 · Beam Power

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Characteristic plate voltage	130 V	—
Characteristic screen voltage	130 V	—
Plate current	70 mA	—
Screen current	1 mA	—
Grid cutoff voltage	-33 V	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Class-A plate voltage	140 V	ClassA
Class-A screen voltage	140 V	ClassA
Class-A fixed grid voltage	-5.7 V	ClassA
Class-A load resistance	1700 ohm	ClassA
Class-A power output	4 W	ClassA
Class-A total harmonic distortion	9 %	ClassA
Class-AB1 push-pull plate voltage	260 V	ClassAB,PushPull
Class-AB1 push-pull load plate-to-plate	5500 ohm	ClassAB,PushPull
Class-AB1 push-pull power output	16.5 W	ClassAB,PushPull
Class-AB1 distortion	1.5 %	ClassAB,PushPull
Heater-cathode voltage maximum	200 V	—

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1965 Westinghouse Data Book

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1965 WESTINGHOUSE DATA BOOK

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical plate voltage	120 V	ClassA
Typical screen voltage	120 V	ClassA
Typical grid1 bias	-6 V	ClassA
Typical plate current	60 mA	ClassA
Load resistance	1800 ohm	ClassA
Power output	3.5 W	ClassA

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	High-sensitivity audio output amplifier	—