



ELECTRONIC TUBE REFERENCE

7650

Power - Beam (NOT sweep) (over 1000V 100W) electronic tube

CONSOLIDATED TECHNICAL
DATA

1 SECTION
CONSTRUCTION
BEAMPOWER

Beam-power output tube intended for high-fidelity audio power amplification, providing substantial Class-AB output from a compact receiving-tube envelope.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	6.3 V / 7.85 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Beam Power	
AMPLIFICATION FACTOR	13
MAXIMUM PLATE VOLTAGE	3000 V
MAXIMUM SCREEN VOLTAGE	1200 V
MAXIMUM PLATE DISSIPATION	600 W
MAXIMUM CATHODE CURRENT	500 mA
<i>Published ratings/characteristics promoted from supplied datasheet.</i>	

Rugged forced-air-cooled UHF beam-power tube for AF power/modulator and linear, plate-modulated, FM, or Class-C RF amplifier/oscillator service.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1940 RCA

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

1940 RCA

Section 1 · Beam Power

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater or filament voltage	6.3 V	Published nominal value
Heater or filament current	7.5 A	Published nominal/aggregate value
Amplification factor	13	Published operating characteristic

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate dissipation	600 W	Published maximum rating
CW power output	800 W	400 MHz
PEP output	680 W	30 MHz
Maximum frequency	1215 MHz	Published



SOURCE OPERATING CONDITIONS

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1971 RCA HB3 Binder 6 of 7

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

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Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum DC Plate Voltage	3000 V	Forced-air-cooled RF power service
Maximum DC Screen Voltage	1200 V	Forced-air-cooled RF power service

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum-Signal DC Plate Current	500 mA	Forced-air-cooled RF power service
Plate Dissipation	600 W	Forced-air-cooled RF power service
Typical DC Plate Voltage	3000 V	Forced-air-cooled RF power service
Maximum-Signal Power Output	1600 W	Forced-air-cooled RF power service
Useful Power Output at 1215 MHz	800 W	Forced-air-cooled RF power service

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Mu Factor, Screen to Control Grid	13	Forced-air-cooled RF power service
Grid-No.1 to Plate Capacitance	0.11 pF	Forced-air-cooled RF power service