



ELECTRONIC TUBE REFERENCE

8298A

Power - Beam (NOT sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

BEAMPOWER

Beam-power transmitting tube co-designated with the 6146B family, intended for AF/RF power amplification, modulation, and oscillator service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	8
NOMINAL HEATER	6.3 V / 1.125 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Beam Power	
TRANSCONDUCTANCE	0.007 S
AMPLIFICATION FACTOR	4.5
MAXIMUM PLATE VOLTAGE	750 V
MAXIMUM SCREEN VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	35 W
MAXIMUM SCREEN DISSIPATION	3 W
Representative electrical section from supplied RCA data sheet.	

Printed co-designation for the 6146B beam-power tube, rated for AF and RF power-amplifier, modulator, and oscillator service.



SOURCE OPERATING CONDITIONS

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	1.125 A	Published nominal value
Maximum frequency with reduced input	175 MHz	Published

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate dissipation	35 W	Published maximum rating
Maximum RF power output	85 W	ICAS; 60 MHz
Two-tube AF power output	110 W	PushPull; ICAS



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1971 RCA HB3 Binder 6 of 7

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

1971 RCA HB3 BINDER 6 OF 7

Section 1 · Beam Power

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater/filament voltage nominal	6.3 V	WholeTube
Heater/filament current	1.125 A	WholeTube

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
RCA "DARK HEATER" WITH	5 V	Published source row
RCA "DARK HEATER" WITH (value 2)	8 V	Published source row
Voltage (AC or DC)	6.3 V	Published source row
Current at heater volts =	6 V	Published source row
Current at heater volts = (value 2)	3 V	Published source row
Current at heater volts = (value 3)	1 V	Published source row
Current at heater volts = (value 4)	125 V	Published source row
Minimum heating time	60 s	Published source row
Transconductance, for plate volts =	200 V	Published source row
grid-No	2 mA	Published source row
grid-No (value 2)	200 mA	Published source row
grid-No (value 3)	100 mA	Published source row
grid-No (value 4)	700 mA	Published source row
Mu-Factor, Grid No	2	Published source row
Mu-Factor, Grid No (value 2)	1	Published source row
plate volts =	200 V	Published source row
plate volts = (value 2)	2 V	Published source row
plate volts = (value 3)	200 V	Published source row
DC Plate Voltage	600 V	Published source row
DC Plate Voltage (value 2)	750 V	Published source row
DC Grid-No	2 V	Published source row
DC Grid-No (value 2)	250 V	Published source row
DC Grid-No (value 3)	250 V	Published source row
PAax.-Signal DC Plate Currents	175 mA	Published source row
PAax.-Signal DC Plate Currents (value 2)	220 mA	Published source row
Max.-Signal Plate Inputs	90 W	Published source row
Max.-Signal Plate Inputs (value 2)	120 W	Published source row

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Max.-Signal Grid-No	2 W	Published source row
Max.-Signal Grid-No (value 2)	3 W	Published source row
Max.-Signal Grid-No (value 3)	3 W	Published source row
Plate Dissipations	27 W	Published source row
Plate Dissipations (value 2)	35 W	Published source row
DC Plate Voltage	600 V	Published source row
DC Plate Voltage (value 2)	750 V	Published source row
DC Grid-No	2 V	Published source row
DC Grid-No (value 2)	200 V	Published source row
DC Grid-No (value 3)	200 V	Published source row
Grid-No.1 Voltage9	94 V	Published source row
Grid-No.1 Voltage9 (value 2)	96 V	Published source row
Zero-Signal DC Plate Current	48 mA	Published source row
Zero-Signal DC Plate Current (value 2)	50 mA	Published source row
Max.-Signal DG Plate Current	250 mA	Published source row
Max.-Signal DG Plate Current (value 2)	250 mA	Published source row
Max.-Signal DC Grid No	2	Published source row
Current	14.8 mA	Published source row
Current (value 2)	12.6 mA	Published source row
DC Plate Voltage	600 V	Published source row
DC Plate Voltage (value 2)	750 V	Published source row
DC Grid-No	2 V	Published source row
DC Grid-No (value 2)	250 V	Published source row
DC Grid-No (value 3)	250 V	Published source row
Currents	175 mA	Published source row
Currents (value 2)	220 mA	Published source row
Max.-Signal Plate Input°	90 W	Published source row
Max.-Signal Plate Input° (value 2)	120 W	Published source row
Max.-Signal Grid-No	2	Published source row

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Dissipations	27 W	Published source row
Plate Dissipations (value 2)	35 W	Published source row
DC Plate Voltage	500 V	Published source row
DC Plate Voltage (value 2)	600 V	Published source row
DC Plate Voltage (value 3)	600 V	Published source row
DC Plate Voltage (value 4)	750 V	Published source row
DC Grid-No	2 V	Published source row
DC Grid-No (value 2)	200 V	Published source row
DC Grid-No (value 3)	200 V	Published source row
DC Grid-No (value 4)	200 V	Published source row
Grid No.1 Voltage	108 V	Published source row
Grid No.1 Voltage (value 2)	106 V	Published source row
Grid No.1 Voltage (value 3)	114 V	Published source row
Grid No.1 Voltage (value 4)	110 V	Published source row
Current	50 mA	Published source row
Current (value 2)	40 mA	Published source row
Current (value 3)	50 mA	Published source row
Current (value 4)	40 mA	Published source row
Current	308 mA	Published source row
Current (value 2)	270 mA	Published source row
Current (value 3)	328 mA	Published source row
Current (value 4)	294 mA	Published source row
Max.-Signal DC Grid No	2	Published source row
Current	26 mA	Published source row
Current (value 2)	27 mA	Published source row
Current (value 3)	26 mA	Published source row
Current (value 4)	28 mA	Published source row
Current	27 mA	Published source row
Current (value 2)	1.3 mA	Published source row
Current (value 3)	3.4 mA	Published source row
Current (value 4)	7.6 mA	Published source row
DC Plate Voltage	600 V	Published source row

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No	1 pF	Published source row
Grid No (value 2)	0.22 pF	Published source row
base sleeve, and heater	13 pF	Published source row
base sleeve, and heater	8.5 pF	Published source row

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes, and their source documents.

[Catalog](#)
[Tube types](#)
[Full books](#)
[Blog](#)
[Feedback & corrections](#)

© 2026 Tube Tinker