

ELECTRONIC TUBE REFERENCE

7558

Power - Beam (NOT sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
BEAMPOWER

Industrial beam-power tube electrically identical to 7551 except heater ratings, designed for RF amplification, oscillation, and frequency multiplication through 175 MHz.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9LK	BASE PINS	9
NOMINAL HEATER	6.3 V / 800 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

9LK - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1	–	K – Cathode	CONNECTED
PIN2	–	G1 – Control Grid	CONNECTED
PIN3	–	G2 – Screen Grid	CONNECTED
PIN4	–	H – Heater	CONNECTED
PIN5	–	H – Heater	CONNECTED
PIN6	–	P – Plate (Anode)	CONNECTED
PIN7	–	G3 – Suppressor Grid	CONNECTED
PIN8	–	G2 – Screen Grid	CONNECTED
PIN9	–	K – Cathode	CONNECTED

SECTION RATINGS

SECTION1 Beam Power	
PLATE RESISTANCE	30000 Ω
TRANSCONDUCTANCE	0.0053 S
AMPLIFICATION FACTOR	8.7
MAXIMUM PLATE VOLTAGE	375 V
MAXIMUM SCREEN VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	12 W
MAXIMUM SCREEN DISSIPATION	2 W
MAXIMUM CATHODE CURRENT	80 mA
<i>Published electrical section from supplied RCA data sheet.</i>	

Industrial beam power tube electrically identical to 7551 except heater ratings, for RF amplification, oscillation, and multiplication to 175 MHz.



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	800 mA	Published nominal/aggregate value
Transconductance	5300 μ S	Published operating characteristic

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Push-pull AF power output	20.5 W	ClassAB; PushPull
Maximum frequency	175 MHz	Published



SOURCE OPERATING CONDITIONS

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1960 RCA Industrial and Communications Types

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

1960 RCA INDUSTRIAL AND COMMUNICATIONS TYPES

Section 1 · Beam Power

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltage	6.3 V	—
HeaterOrFilamentCurrent	450 mA	—
MaximumOperatingFrequency	175 MHz	Approximate/useful limit

SOURCE OPERATING CONDITIONS

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1965 Sylvania Electronic Tubes Vol3

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

1965 SYLVANIA ELECTRONIC TUBES VOL3

Section 1 · Beam Power

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	800 mA	—
Characteristic plate voltage	250 V	—
Characteristic grid2 voltage	250 V	—
Transconductance	5300 μ S	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage maximum CCS Class C	250 V	ClassC
Plate voltage maximum ICAS Class C	300 V	ClassC
Grid2 voltage maximum	250 V	—
Grid1 voltage minimum	-125 V	—
Plate dissipation maximum CCS	8 W	ClassC
Plate dissipation maximum ICAS	12 W	ClassC
Typical Class-C plate voltage	300 V	ClassC

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	RF power amplifier / frequency multiplier / AF amplifier —	

SOURCE OPERATING CONDITIONS

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1971 RCA HB3 Binder 3 of 7

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

1971 RCA HB3 BINDER 3 OF 7

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	800 mA	—
Plate voltage	250 V	ClassA
Screen voltage	250 V	ClassA
Grid voltage	-18 V	ClassA
Plate current	40 mA	ClassA
Screen current	3 mA	ClassA
Maximum plate voltage	375 V	—
Maximum screen voltage	300 V	—
Maximum plate dissipation	12 W	ICAS
Push-pull power output	20.5 W	ClassAB1;TwoTubes
RF useful power output	10 W	ClassC;175MHz

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	5300 μ S	ClassA
Screen-to-control-grid mu factor	8.7	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	0.15 pF	—

SOURCE OPERATING CONDITIONS

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1971 RCA HB3 Binder 5 of 7

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

1971 RCA HB3 BINDER 5 OF 7

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage nominal	6.3 V	—
Heater current nominal	800 mA	—
Voltage (AC or DC1	6.3 %	Published source row
Voltage (AC or DC1 (value 2)	5 %	Published source row
Current	800 mA	Published source row
DC PLATE VOLTAGE	300 V	Published source row
DC PLATE VOLTAGE (value 2)	300 V	Published source row
VOLTAGE	250 V	Published source row
VOLTAGE (value 2)	250 V	Published source row
VOLTAGE	-125 V	Published source row
VOLTAGE (value 2)	-125 V	Published source row
DC PLATE CURRENT	70 mA	Published source row
DC PLATE CURRENT (value 2)	80 mA	Published source row
DC GRID-No	2 mA	Published source row
DC GRID-No (value 2)	15 mA	Published source row
DC GRID-No (value 3)	15 mA	Published source row
DC GRID-No.1 CURRENT	5 mA	Published source row
DC GRID-No.1 CURRENT (value 2)	5 mA	Published source row
GRID-No	2 W	Published source row
GRID-No (value 2)	2 W	Published source row
GRID-No (value 3)	2 W	Published source row
PLATE DISSIPATION	10 W	Published source row

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	250 V	Published source row
Grid-No	2 V	Published source row
Grid-No (value 2)	250 V	Published source row
Grid-No.1 Voltage	-18 V	Published source row
Mu-Factor, Grid No	2	Published source row
Mu-Factor, Grid No (value 2)	8.7	Published source row
Transconductance	5300 μ S	Published source row
Plate Current	40 mA	Published source row
Grid-No	2 mA	Published source row
Grid-No (value 2)	3 mA	Published source row
DC PLATE VOLTAGE	300 V	Published source row
n DC GRID-No	2	Published source row
MAX.-SIGNAL GRID-No	2 W	Published source row
MAX.-SIGNAL GRID-No (value 2)	2 W	Published source row
PLATE DISSIPATION	10 W	Published source row
~~ Plate Voltage	300 V	Published source row
Grid-No	2 V	Published source row
Grid-No (value 2)	250 V	Published source row
s• Grid-No.1 Voltage§	-21 V	Published source row
Peak AF Grid-No.1-to-Grid-No.1 Voltage	40 V	Published source row
ero-Signal DC Plate Current	40 mA	Published source row
•x.-Signal DC Plate Current	125 mA	Published source row
ero-Signal DC Grid-No	2 mA	Published source row
ero-Signal DC Grid-No (value 2)	2 mA	Published source row
•x.-Signal DC Grid-No	2 mA	Published source row
•x.-Signal DC Grid-No (value 2)	14 mA	Published source row
ffective Load Resistance (Plate to plate)	5000 ohm	Published source row
otal Harmonic Distortion	5	Published source row

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
ax.-Signal Power Output (Approx.)	20 W	Published source row
ax.-Signal Power Output (Approx.) (value 2)	5 W	Published source row
Grid-No.1-Circuit Resistance	0 Mohm	Published source row
Grid-No.1-Circuit Resistance (value 2)	1 Mohm	Published source row



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1975 RCA RC30

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

1975 RCA RC30

Section 1 · Beam Power

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to Plate Capacitance	0.15 pF	Maximum
Grid No.1 Input Capacitance	10 pF	—
Plate Output Capacitance	5.5 pF	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Class A Plate Voltage	250 V	ClassA
Class A Screen Voltage	250 V	ClassA
Class A Plate Current	40 mA	ClassA
Class A Screen Current	3 mA	ClassA

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
RF DC Plate Current	80 mA	ClassC;ICAS;175MHz
RF DC Screen Current	15 mA	ClassC;ICAS;175MHz
Useful Power Output	10 W	ClassC;ICAS;175MHz

TUBE TINKER

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