

ELECTRONIC TUBE REFERENCE

6KY8A

Power - TV Vertical Output electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

BEAMPOWER-TRIODE

Multi-section television tube with a pulse-rated beam-power section intended for vertical-deflection output and a companion small-signal section for associated circuitry.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9QT	BASE PINS	9
NOMINAL HEATER	6.3 V / 1.1 A	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

9QT - TERMINAL PINOUT

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

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	40000 Ω
TRANSCONDUCTANCE	0.0016 S
AMPLIFICATION FACTOR	64
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	1.5 W
MAXIMUM CATHODE CURRENT	22 mA
<i>Representative electrical section from supplied RCA data sheet.</i>	

SECTION2 Beam Power	
PLATE RESISTANCE	18000 Ω
TRANSCONDUCTANCE	0.0084 S
AMPLIFICATION FACTOR	7
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM SCREEN VOLTAGE	150 V
MAXIMUM PLATE DISSIPATION	12 W
MAXIMUM SCREEN DISSIPATION	1.9 W
MAXIMUM CATHODE CURRENT	70 mA
<i>Representative electrical section from supplied RCA data sheet.</i>	

High-mu triode plus beam-power section used as a combined vertical-deflection oscillator and amplifier in low-B-plus television receivers.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage nominal	6.3 V	—
Heater current	1.1 A	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage (AC or DC)	6.3 V	Published table column
Published electrical value	1 V	Published table column
Plate Voltage	250 V	Published source row
Plate Voltage (value 2)	50 V	Published source row
Plate Voltage (value 3)	135 V	Published source row
Grid-No	2 V	Published source row
Grid-No (value 2)	120 V	Published source row
Grid-No (value 3)	120 V	Published source row
Grid-No.1 Voltage	-3 V	Published source row
Grid-No.1 Voltage (value 2)	0 V	Published source row
Grid-No.1 Voltage (value 3)	-10 V	Published source row
Plate Resistance (Approx.)	40000 ohm	Published source row
Plate Resistance (Approx.) (value 2)	18000 ohm	Published source row
Transconductance	1600	Published source row
Transconductance (value 2)	8400	Published source row
Plate Current	1.4 mA	Published source row
Plate Current (value 2)	170 mA	Published source row
Plate Current (value 3)	39 mA	Published source row

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No	2 mA	Published source row
Grid-No (value 2)	20 mA	Published source row
Grid-No (value 3)	3 mA	Published source row
Grid-No	1	Published source row
DC Plate Voltage	330 V	Published source row
Peak Negative-Pulse Grid Voltage	400 V	Published source row
Peak Cathode Current	77 mA	Published source row
Average Cathode Current	22 mA	Published source row
Plate- Dissipation	1.5 W	Published source row

1971 RCA HB3 BINDER 5 OF 7

Section 2 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage nominal	6.3 V	—
Heater current	1.1 A	—
DC Plate Voltage	300 V	Published source row
Peak. Positive-Pulse Plate Voltages	2000 V	Published source row
DC Grid-No	2 V	Published source row
DC Grid-No (value 2)	150 V	Published source row
(Control-Grid) Voltage	250 V	Published source row
Peak Cathode Current	200 mA	Published source row
Average Cathode Current	70 mA	Published source row
Plate Dissipation	12 W	Published source row
Grid-No	2 W	Published source row
Grid-No (value 2)	1 W	Published source row
Grid-No (value 3)	9 W	Published source row
such that the plate dissipation and grid-Xo	2	Published source row

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage (AC or DC)	0.6 V	Published table column

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Published electrical value	6 V	Published table column
GRID-No	2 V	Published source row
GRID-No (value 2)	120 V	Published source row
GRID-No	2	Published source row
GRID-No (value 2)	2	Published source row

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No	1 pF	Published source row
Grid No (value 2)	0 pF	Published source row
Grid No (value 3)	48 pF	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 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage (ac/dc) 6.3	15 V	Published in approved 6KY8A target datasheet entry; Section1
Heater Current 1.1	450 mA	Published in approved 6KY8A target datasheet entry; Section1
Heater Warm-up Time (Average)	11 seconds	Published in approved 6KY8A target datasheet entry; Section1
DC Plate Voltage 330	300 V	Published in approved 6KY8A target datasheet entry; Section1
DC Grid-No.2 Voltage	150 V	Published in approved 6KY8A target datasheet entry; Section1
Peak Negative-Pulse Grid-No.1 Voltage 400	250 V	Published in approved 6KY8A target datasheet entry; Section1
Peak Cathode Current 77	200 mA	Published in approved 6KY8A target datasheet entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Average Cathode Current 22	60 mA	Published in approved 6KY8A target datasheet entry; Section1
Plate Dissipation 1.5	12 W	Published in approved 6KY8A target datasheet entry; Section1
Grid-No.2 Input	1.9 W	Published in approved 6KY8A target datasheet entry; Section1
For grid-resistor-bias operation 2.2	2.2 MΩ	Published in approved 6KY8A target datasheet entry; Section1
# Pulse duration must not exceed 15% of a vertical scanning cycle (	2.5 milliseconds	Published in approved 6KY8A target datasheet entry; Section1

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid to Cathode and Heater	15 pF	Published in approved 6KY8A target datasheet entry; Section1
Plate to Cathode and Heater	7 pF	Published in approved 6KY8A target datasheet entry; Section1
Grid No.1 to Plate	0.048 pF	Published in approved 6KY8A target datasheet entry; Section1
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3	2.6 pF	Published in approved 6KY8A target datasheet entry; Section1
Plate to Cathode, Heater, Grid No.2, and Grid No.3	0.28 pF	Published in approved 6KY8A target datasheet entry; Section1

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage 250 50 135	120 V	Published in approved 6KY8A target datasheet entry; Section1
Grid-No.1 (Control-Grid) Voltage -3 0 -10	-10 V	Published in approved 6KY8A target datasheet entry; Section1
Plate Resistance (Approx.) 40000	18000 Ω	Published in approved 6KY8A target datasheet entry; Section1
Transconductance 1600	8400 μS	Published in approved 6KY8A target datasheet entry; Section1
Plate Current 1.4 170"	39 mA	Published in approved 6KY8A target datasheet entry; Section1
Grid-No.2 Current 20"	3 mA	Published in approved 6KY8A target datasheet entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
current of	1 mA	Published in approved 6KY8A target datasheet entry; Section1
current of 1 mA	-24 V	Published in approved 6KY8A target datasheet entry; Section1

1975 RCA RC30

Section 2 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage (ac/dc) 6.3	15 V	Published in approved 6KY8A target datasheet entry; Section2
Heater Current 1.1	450 mA	Published in approved 6KY8A target datasheet entry; Section2
Heater Warm-up Time (Average)	11 seconds	Published in approved 6KY8A target datasheet entry; Section2
DC Plate Voltage 330	300 V	Published in approved 6KY8A target datasheet entry; Section2
DC Grid-No.2 Voltage	150 V	Published in approved 6KY8A target datasheet entry; Section2
Peak Negative-Pulse Grid-No.1 Voltage 400	250 V	Published in approved 6KY8A target datasheet entry; Section2
Peak Cathode Current 77	200 mA	Published in approved 6KY8A target datasheet entry; Section2
Average Cathode Current 22	60 mA	Published in approved 6KY8A target datasheet entry; Section2
Plate Dissipation 1.5	12 W	Published in approved 6KY8A target datasheet entry; Section2
Grid-No.2 Input	1.9 W	Published in approved 6KY8A target datasheet entry; Section2
For grid-resistor-bias operation 2.2	2.2 MΩ	Published in approved 6KY8A target datasheet entry; Section2
# Pulse duration must not exceed 15% of a vertical scanning cycle (	2.5 milliseconds	Published in approved 6KY8A target datasheet entry; Section2

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid to Cathode and Heater	15 pF	Published in approved 6KY8A target datasheet entry; Section2

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate to Cathode and Heater	7 pF	Published in approved 6KY8A target datasheet entry; Section2
Grid No.1 to Plate	0.048 pF	Published in approved 6KY8A target datasheet entry; Section2
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3	2.6 pF	Published in approved 6KY8A target datasheet entry; Section2
Plate to Cathode, Heater, Grid No.2, and Grid No.3	0.28 pF	Published in approved 6KY8A target datasheet entry; Section2

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage 250 50 135	120 V	Published in approved 6KY8A target datasheet entry; Section2
Grid-No.1 (Control-Grid) Voltage -3 0 -10	-10 V	Published in approved 6KY8A target datasheet entry; Section2
Plate Resistance (Approx.) 40000	18000 Ω	Published in approved 6KY8A target datasheet entry; Section2
Transconductance 1600	8400 μS	Published in approved 6KY8A target datasheet entry; Section2
Plate Current 1.4 170"	39 mA	Published in approved 6KY8A target datasheet entry; Section2
Grid-No.2 Current 20"	3 mA	Published in approved 6KY8A target datasheet entry; Section2
current of	1 mA	Published in approved 6KY8A target datasheet entry; Section2
current of 1 mA	-24 V	Published in approved 6KY8A target datasheet entry; Section2

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