

ELECTRONIC TUBE REFERENCE

6JT6A

Power - TV Horizontal Output (sweep) electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
BEAMPOWER

Beam-power tube designed for television horizontal-deflection amplification in sweep-output circuits.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9QU	BASE PINS	9
NOMINAL HEATER	6.3 V / 1.2 A	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

9QU - TERMINAL PINOUT

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

SECTION RATINGS

SECTION1 Beam Power	
PLATE RESISTANCE	15000 Ω
TRANSCONDUCTANCE	0.0071 S
AMPLIFICATION FACTOR	4.4
MAXIMUM PLATE VOLTAGE	770 V
MAXIMUM SCREEN VOLTAGE	150 V
MAXIMUM PLATE DISSIPATION	17.5 W
MAXIMUM SCREEN DISSIPATION	3.5 W
MAXIMUM CATHODE CURRENT	175 mA
<i>Published ratings/characteristics promoted from supplied datasheet.</i>	

Beam-power tube used as a horizontal-deflection amplifier in 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 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage (AC or DC)	6.3 V	Published table value column 1
Voltage (AC or DC)	0.6 V	Published table value column 2
Current at heater volts =	6.3 V	Published table value column 1
Current at heater volts =	1.2 V	Published table value column 2
Heater negative with respect to cathode	200 V	Published table value
Heater positive with respect to cathode	2006 V	Published table value
Grid No	1 pF	Published table value column 1
Grid No	0.26 pF	Published table value column 2
Input: G	15 K	Published table value
Output: P to (K,G	6.5 K	Published table value
Plate Voltage	150 V	Published table value column 1
Plate Voltage	60 V	Published table value column 2
Plate Voltage	250 V	Published table value column 3
Grid-No	2 V	Published table value column 1
Grid-No	150 V	Published table value column 2
Grid-No	150 V	Published table value column 3
Grid-No	150 V	Published table value column 4
Grid-No	1 V	Published table value column 1
Grid-No	-22.5 V	Published table value column 2
Grid-No	0 V	Published table value column 3
Grid-No	-22.5 V	Published table value column 4

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	390 mA	Published table value column 1
Plate Current	70 mA	Published table value column 2
Grid-No	2 mA	Published table value column 1
Grid-No	32 mA	Published table value column 2
Grid-No	2.1 mA	Published table value column 3
for plate ma =	1 mA	Published table value column 1
for plate ma =	-42 mA	Published table value column 2
DC Plate Supply Voltage	770 V	Published table value
Peak Positive-Pulse Plate Voltage	6500 V	Published table value
Peak Negative-Pulse Plate Voltage	1500 V	Published table value
DC Grid-No	3 V	Published table value column 1
DC Grid-No	70 V	Published table value column 2
DC Grid-No	2 V	Published table value column 1
DC Grid-No	220 V	Published table value column 2
Peak Negative-Pulse Grid-No.1 Voltage	330 V	Published table value
Grid-No	2 W	Published table value column 1
Grid-No	3.5 W	Published table value column 2
Plate Dissipationh	17.5 W	Published table value
For grid-resistor-bias operation	1 MΩ	Published table value
A positive voltage may De appl ied to gritl No	3 A	Published table value
value for this voltage is	3 V	Published table value
GRID-No	2 VOLTS	Published table value column 1
GRID-No	150 VOLTS	Published table value column 2

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance (Approx.)	15000 Ω	Published table value
Transconductance	7100 μS	Published table value

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage (ac/dc) 6.3 12.6	16.8 V	Published in approved 17JT6A target datasheet entry; Section1
Heater Current 1.2 0.6	450 mA	Published in approved 17JT6A target datasheet entry; Section1
Heater Warm-up Time (Average) – 11	11 seconds	Published in approved 17JT6A target datasheet entry; Section1
DC Plate Supply Voltage	770 V	Published in approved 17JT6A target datasheet entry; Section1
Peak Positive-Pulse Plate Voltage*	6500 V	Published in approved 17JT6A target datasheet entry; Section1
DC Grid-No.3 Voltage*	70 V	Published in approved 17JT6A target datasheet entry; Section1
DC Grid-No.2 Voltage	220 V	Published in approved 17JT6A target datasheet entry; Section1
DC Grid-No.1 Voltage, Negative-bias value	65 V	Published in approved 17JT6A target datasheet entry; Section1
6RID -No	2 V	Published in approved 17JT6A target datasheet entry; Section1
Peak Cathode Current	550 mA	Published in approved 17JT6A target datasheet entry; Section1
Average Cathode Current	175 mA	Published in approved 17JT6A target datasheet entry; Section1
Plate Dissipationf	17.5 W	Published in approved 17JT6A target datasheet entry; Section1
Grid-No.2 Input	3.5 W	Published in approved 17JT6A target datasheet entry; Section1
Grid-No.1-Circuit Resistance, for grid-resistor-bias operation	1 MΩ	Published in approved 17JT6A target datasheet entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
# Pulse duration must not exceed 15% of a horizontal seal (	10 microseconds	Published in approved 17JT6A target datasheet entry; Section1
may occur in television receivers. A typical value for this voltage is	30 V	Published in approved 17JT6A target datasheet entry; Section1
Heater Voltage (ac/dc) 6.3	10.2 V	Published in approved 17JT6A target datasheet entry; Section1
Heater Current 0.725	450 mA	Published in approved 17JT6A target datasheet entry; Section1
Heater Warm-up Time (Average)	11 seconds	Published in approved 17JT6A target datasheet entry; Section1
Plate Voltage	330 V	Published in approved 17JT6A target datasheet entry; Section1
Grid-No.1 (Control-Grid) Voltage, Positive-bias value	0 V	Published in approved 17JT6A target datasheet entry; Section1
Plate Dissipation	4 W	Published in approved 17JT6A target datasheet entry; Section1

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to Plate	0.26 pF	Published in approved 17JT6A target datasheet entry; Section1
Grid No.1 to Cathode, Heater, Grid No.2, and Grid Nc 3	15 pF	Published in approved 17JT6A target datasheet entry; Section1
Plate to Cathode, Heater, Grid No.2, and Grid No.3	6.5 pF	Published in approved 17JT6A target datasheet entry; Section1

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage 60 250	150 V	Published in approved 17JT6A target datasheet entry; Section1
Grid-No.2 (Screen-Grid) Voltage 150 150	150 V	Published in approved 17JT6A target datasheet entry; Section1
Grid-No.1 (Control-Grid) Voltage 0 -22.5	-22.5 V	Published in approved 17JT6A target datasheet entry; Section1
Plate Resistance (Approx.)	15000 Ω	Published in approved 17JT6A target datasheet entry; Section1
Transconductance	7100 μS	Published in approved 17JT6A target datasheet entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current 390	70 mA	Published in approved 17JT6A target datasheet entry; Section1
Grid-No.2 Current 32	2.1 mA	Published in approved 17JT6A target datasheet entry; Section1
1 mA –	-42 V	Published in approved 17JT6A target datasheet entry; Section1

TUBE TINKER

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