



ELECTRONIC TUBE REFERENCE

33JR6

Power - TV Horizontal Output (sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

BEAMPOWER

Series-heater beam-power horizontal-output tube intended for low-B-plus black-and-white television line-deflection service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9QU	BASE PINS	9
NOMINAL HEATER	33 V / 300 mA	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	18000 Ω
TRANSCONDUCTANCE	0.007 S
AMPLIFICATION FACTOR	4.7
MAXIMUM PLATE VOLTAGE	770 V
MAXIMUM SCREEN VOLTAGE	125 V
MAXIMUM PLATE DISSIPATION	17 W
MAXIMUM SCREEN DISSIPATION	3.5 W
MAXIMUM CATHODE CURRENT	275 mA
<i>Inherited from explicitly referenced parent 6JR6; supplied sheet changes heater characteristics.</i>	

Novar beam-power tube used as a horizontal-deflection amplifier in low-B-plus black-and-white 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
Heater Voltage, ac or dc Eh	6.3 V	Published table value Inherited from explicitly referenced 6JR6.
Heater Current Ih	1.6 A	Published table value Inherited from explicitly referenced 6JR6.
Grid No.1 to plate cg l_p	0.7 pF	Published table value Inherited from explicitly referenced 6JR6.
Input: G	22 K	Published table value Inherited from explicitly referenced 6JR6.
Output: P to (K,G	9 K	Published table value Inherited from explicitly referenced 6JR6.
DC Plate Current Ib	470 mA	Published table value column 1 Inherited from explicitly referenced 6JR6.
DC Plate Current Ib	45 mA	Published table value column 2 Inherited from explicitly referenced 6JR6.
DC Grid-No	2 mA	Published table value column 1 Inherited from explicitly referenced 6JR6.
DC Grid-No	32 mA	Published table value column 2 Inherited from explicitly referenced 6JR6.
DC Grid-No	1.5 mA	Published table value column 3 Inherited from explicitly referenced 6JR6.
Voltaged ebm	6500 V	Published table value Inherited from explicitly referenced 6JR6.
DC Plate Voltage Eb	50 V	Published table value column 1 Inherited from explicitly referenced 6JR6.
DC Plate Voltage Eb	125 V	Published table value column 2 Inherited from explicitly referenced 6JR6.
DC Plate Voltage Eb	130 V	Published table value column 3 Inherited from explicitly referenced 6JR6.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DC Grid-No	2 V	Published table value column 1 Inherited from explicitly referenced 6JR6.
DC Grid-No	125 V	Published table value column 2 Inherited from explicitly referenced 6JR6.
DC Grid-No	125 V	Published table value column 3 Inherited from explicitly referenced 6JR6.
DC Grid-No	125 V	Published table value column 4 Inherited from explicitly referenced 6JR6.
DC Grid-No.1 Voltage Ec 1	0 V	Published table value column 1 Inherited from explicitly referenced 6JR6.
DC Grid-No.1 Voltage Ec 1	-20 V	Published table value column 2 Inherited from explicitly referenced 6JR6.
DC Grid-No.1 Voltage Ec 1	-20 V	Published table value column 3 Inherited from explicitly referenced 6JR6.
DC Plate Supply Voltage Ebb	770 V	Published table value Inherited from explicitly referenced 6JR6.
Voltageg e bm	6500 V	Published table value Inherited from explicitly referenced 6JR6.
Voltage -ebm	1500 V	Published table value Inherited from explicitly referenced 6JR6.
DC Grid-No	3 V	Published table value column 1 Inherited from explicitly referenced 6JR6.
DC Grid-No	75 V	Published table value column 2 Inherited from explicitly referenced 6JR6.
Voltage Ec	220 V	Published table value Inherited from explicitly referenced 6JR6.
Voltage	330 V	Published table value Inherited from explicitly referenced 6JR6.
Heater Voltage, ac or do Eh	5.7 V	Published table value column 1 Inherited from explicitly referenced 6JR6.
Heater Voltage, ac or do Eh	6.9 V	Published table value column 2 Inherited from explicitly referenced 6JR6.
Grid-No	2 V	Published table value column 1 Inherited from explicitly referenced 6JR6.
Grid-No	3.5 V	Published table value column 2 Inherited from explicitly referenced 6JR6.
Plate Disaipationk Pb	17 V	Published table value Inherited from explicitly referenced 6JR6.
GRID-No.1 VOLTS =	0 VOLTS	Published table value Inherited from explicitly referenced 6JR6.

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance (Approx.) rp	18 k	Published table value Inherited from explicitly referenced 6JR6.



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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage (ac/dc) 6.3 16.8 22	33 V	Published in approved 33JR6 target datasheet entry; Section1
Heater Current 1.6 0.6 0.45	300 mA	Published in approved 33JR6 target datasheet entry; Section1
(Average) 11 11	11 seconds	Published in approved 33JR6 target datasheet entry; Section1
Grid No.1 to Plate	0.7 pF	Published in approved 33JR6 target datasheet entry; Section1
—	0 V	Published in approved 33JR6 target datasheet entry; Section1
—	18000 Ω	Published in approved 33JR6 target datasheet entry; Section1
Plate Current 470J	45 mA	Published in approved 33JR6 target datasheet entry; Section1
32t	1.5 mA	Published in approved 33JR6 target datasheet entry; Section1
current of	1 mA	Published in approved 33JR6 target datasheet entry; Section1
current of 1 mA	-32 V	Published in approved 33JR6 target datasheet entry; Section1
3 600 -GR 0-No	2 V	Published in approved 33JR6 target datasheet entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Supply Voltage	770 V	Published in approved 33JR6 target datasheet entry; Section1
Peak Positive-Pulse Plate Voltage#	6500 V	Published in approved 33JR6 target datasheet entry; Section1
Peak Negative-Pulse Plate Voltage	1500 V	Published in approved 33JR6 target datasheet entry; Section1
Grid-No.3 Voltage	75 V	Published in approved 33JR6 target datasheet entry; Section1
Grid-No.2 Voltage	220 V	Published in approved 33JR6 target datasheet entry; Section1
Grid-No.1 Voltage, Negative-bias value	55 V	Published in approved 33JR6 target datasheet entry; Section1
Peak Negative-Pulse Grid-No.1 Voltage	330 V	Published in approved 33JR6 target datasheet entry; Section1
Peak Cathode Current	950 mA	Published in approved 33JR6 target datasheet entry; Section1
Plate Dissipation*	17 W	Published in approved 33JR6 target datasheet entry; Section1
Bulb Temperature (At hottest point)	240 °C	Published in approved 33JR6 target datasheet entry; Section1
I00&)	1 MΩ	Published in approved 33JR6 target datasheet entry; Section1
Grid-leak bias (with signal peak clamped to zero bias)	10 MΩ	Published in approved 33JR6 target datasheet entry; Section1
Fixed bias (where positive grid current is not drawn)	0.47 MΩ	Published in approved 33JR6 target datasheet entry; Section1
# Pulse duration must not exceed 15% of one horizontal scanning cycle (	10 microseconds	Published in approved 33JR6 target datasheet entry; Section1
ference; a typical value for this voltage is	30 V	Published in approved 33JR6 target datasheet entry; Section1

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
and Grid No.3	22 pF	Published in approved 33JR6 target datasheet entry; Section1
and Grid No.3	9 pF	Published in approved 33JR6 target datasheet entry; Section1

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No.2 (Screen-Grid) Voltage 125 125 125	125 V	Published in approved 33JR6 target datasheet entry; Section1

TUBE TINKER

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