



ELECTRONIC TUBE REFERENCE

6JF6

Power - TV Horizontal Output (sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

BEAMPOWER

Novar beam-power tube designed for horizontal-deflection amplification in black-and-white television receivers.

GENERAL CHARACTERISTICS

BASE DESIGNATION	Unknown	BASE PINS	9
NOMINAL HEATER	6.3 V / 1.6 A	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Beam Power	
PLATE RESISTANCE	12000 Ω
TRANSCONDUCTANCE	0.01 S
AMPLIFICATION FACTOR	4.1
MAXIMUM PLATE VOLTAGE	770 V
MAXIMUM SCREEN VOLTAGE	125 V
MAXIMUM PLATE DISSIPATION	17 W
MAXIMUM SCREEN DISSIPATION	3.5 W
MAXIMUM CATHODE CURRENT	175 mA
<i>Published ratings/characteristics promoted from supplied datasheet.</i>	

Novar beam-power tube used as a horizontal-deflection amplifier in 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
Voltage (AC or DC)	6 V	Published table value column 1
Voltage (AC or DC)	3 V	Published table value column 2
Voltage (AC or DC)	0.6 V	Published table value column 3
Current at	6.3 V	Published table value column 1
Current at	1.6 V	Published table value column 2
Grid No	1 pF	Published table value column 1
Grid No	1.2 pF	Published table value column 2
Input: G	22 K	Published table value
Output: P to (K, G	9 K	Published table value
Peak Positive-Pulse Plate Voltageb	6500 V	Published table value
Plate Voltage	50 V	Published table value column 1
Plate Voltage	130 V	Published table value column 2
Grid-No	2 V	Published table value column 1
Grid-No	125 V	Published table value column 2
Grid-No	125 V	Published table value column 3
Grid-No	125 V	Published table value column 4
Grid-No. 1 Voltage	0 V	Published table value column 1
Grid-No. 1 Voltage	-20 V	Published table value column 2
Plate Current	525 mA	Published table value column 1
Plate Current	80 mA	Published table value column 2
Grid-No	2 mA	Published table value column 1
Grid-No	32 mA	Published table value column 2

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No	2.5 mA	Published table value column 3
Grid-No. 1 Voltage (Approx.)	-125 V	Published table value column 1
Grid-No. 1 Voltage (Approx.)	-40 V	Published table value column 2
For plate mA =	1 mA	Published table value
grid-No	2 V	Published table value column 1
grid-No	125 V	Published table value column 2
DC Plate Supply Voltage	770 V	Published table value
Peak Positive-Pulse Plate Voltages	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	100 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 (Control-Grid) 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 Dissipationf	17 W	Published table value
voltage rs	50 V	Published table value
GRID No	3 a	Published table value
GRIDaVo	2 VOLTS	Published table value column 1
GRIDaVo	12 VOLTS	Published table value column 2
GRID-No.1 VOLTS•	0 VOLTS	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 16.8	22 V	Published in approved 17JF6 target datasheet entry; Section1
Heater Current 1.6 0.6	450 mA	Published in approved 17JF6 target datasheet entry; Section1
Heater Warm-up Time (Average) 11	11 seconds	Published in approved 17JF6 target datasheet entry; Section1
Transconductance	10000 μ S	Published in approved 17JF6 target datasheet entry; Section1
– – 525f	80 mA	Published in approved 17JF6 target datasheet entry; Section1
Grid-No.2 Current – 32f	2.5 mA	Published in approved 17JF6 target datasheet entry; Section1
of	1 mA	Published in approved 17JF6 target datasheet entry; Section1
of 1 mA – –125 –	-40 V	Published in approved 17JF6 target datasheet entry; Section1
DC Plate Supply Voltage	770 V	Published in approved 17JF6 target datasheet entry; Section1
Peak Positive-Pulse Plate Voltage*	6500 V	Published in approved 17JF6 target datasheet entry; Section1
Peak Negative-Pulse Plate Voltage	1500 V	Published in approved 17JF6 target datasheet entry; Section1
DC Grid-No.3 Voltage"	100 V	Published in approved 17JF6 target datasheet entry; Section1
DC Grid-No.2 Voltage	220 V	Published in approved 17JF6 target datasheet entry; Section1
Peak Negative-Pulse Grid-No.1 Voltage	330 V	Published in approved 17JF6 target datasheet entry; Section1
Peak Cathode Current	950 mA	Published in approved 17JF6 target datasheet entry; Section1
Plate Dissipation!	17 W	Published in approved 17JF6 target datasheet entry; Section1
Bulb Temperature (At hottest point)	240 °C	Published in approved 17JF6 target datasheet entry; Section1
GRID-No	2 V	Published in approved 17JF6 target datasheet entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
For cathode-bias operation	1 MΩ	Published in approved 17JF6 target datasheet entry; Section1
For grid-leak-bias operation	10 MΩ	Published in approved 17JF6 target datasheet entry; Section1
For fixed-bias operation	0.47 MΩ	Published in approved 17JF6 target datasheet entry; Section1
# Pulse duration must not exceed 15% of a horizontal scanning cycle (	10 microseconds	Published in approved 17JF6 target datasheet entry; Section1
ference ; a typical value for this voltage is	50 V	Published in approved 17JF6 target datasheet entry; Section1

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to Plate	1.2 pF	Published in approved 17JF6 target datasheet entry; Section1
0.3	22 pF	Published in approved 17JF6 target datasheet entry; Section1
Plate to Cathode. Heater, Grid No.2, and Grid No.3	9 pF	Published in approved 17JF6 target datasheet entry; Section1