

ELECTRONIC TUBE REFERENCE

6JU6

Power - TV Horizontal Output (sweep) electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
BEAMPOWER

Beam-power tube designed for horizontal-deflection amplifier service in color television receivers.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9QU	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

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>Published ratings/characteristics promoted from supplied datasheet.</i>	

Beam power tube for horizontal-deflection amplifier service in color television receivers. It is an explicit heater variant/co-designation in 22JU6.pdf.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1964 RMA EIA

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

1964 RMA EIA

Section 1 · Beam Power

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	1.8 A	—
Grid1 To Plate Capacitance	1.2 pF	—
Input Capacitance	22 pF	—
Output Capacitance	9 pF	—
Plate Resistance Approximate	18000 ohm	—
Transconductance	7000 uS	—
TriodeAmplificationFactor	4.7	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Positive Pulse Plate Voltage	6500 V	HorizontalDeflection
Peak Negative Pulse Plate Voltage	1500 V	HorizontalDeflection
PositiveDCBeamPlateVoltage	75 V	—
Screen Voltage Maximum	220 V	—
Plate Dissipation Maximum	17 W	—
Screen Dissipation Maximum	3.5 W	—
DCCathodeCurrentMaximum	275 mA	—
PeakCathodeCurrentMaximum	950 mA	—

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
Heater Current Ih	1.6 A	Published table value
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
DC Plate Current Ib	470 mA	Published table value column 1
DC Plate Current Ib	45 mA	Published table value column 2
DC Grid-No	2 mA	Published table value column 1
DC Grid-No	32 mA	Published table value column 2
DC Grid-No	1.5 mA	Published table value column 3
Cutoff DC Grid-No. 1 Voltage Ec1(co)	-75 V	Published table value column 1
Cutoff DC Grid-No. 1 Voltage Ec1(co)	-32 V	Published table value column 2
Plate Voltages ebm	6500 V	Published table value
DC Plate Voltage Eb	50 V	Published table value column 1
DC Plate Voltage Eb	125 V	Published table value column 2
DC Plate Voltage Eb	130 V	Published table value column 3
DC Grid-No	2 V	Published table value column 1
DC Grid-No	125 V	Published table value column 2
DC Grid-No	125 V	Published table value column 3
DC Grid-No	125 V	Published table value column 4
DC Grid-No. 1 Voltage Ec 1	0 V	Published table value column 1
DC Grid-No. 1 Voltage Ec 1	-20 V	Published table value column 2
DC Grid-No. 1 Voltage Ec 1	-20 V	Published table value column 3

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DC Plate Supply Voltage Ebb	770 V	Published table value
Peak Positive-Pulse Plate Voltages. ebm	6500 V	Published table value
Peak Negative-Pulse Plate Voltage -ebm	1500 V	Published table value
DC Grid-No	3 V	Published table value column 1
DC Grid-No	75 V	Published table value column 2
DC Grid-No	220 V	Published table value column 2
DC Grid-No. 1 Control-Grid) Voltage -Ec 1	55 V	Published table value
Peak Negative-Pulse Grid-No. 1 Voltage -eclm	330 V	Published table value
Heater Voltage (AC or DC) h	5.7 V	Published table value column 1
Heater Voltage (AC or DC) h	6.9 V	Published table value column 2
Grid-No	2 W	Published table value column 1
Grid-No	3.5 W	Published table value column 2
Plate Dissipationf Pb	17 W	Published table value
a Wi ch grid No	2 a	Published table value
for this voltage is	30 V	Published table value
GRID-No.1 VOLTS •	0 VOLTS	Published table value

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance gm	7000 μS	Published table value



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 Warm-up Time	11 s	Other
Peak value d	200 V	Other;PublishedValue1
Peak value d	200 V	Other;PublishedValue2
Average value	100 V	Other;PublishedValue1
Average value	100 V	Other;PublishedValue2
DC Plate Supply Voltage	770 V	MaximumRating
Peak Positive-Pulse Plate Voltage*	6500 V	MaximumRating
Peak Negative-Pulse Plate Voltage	1500 V	MaximumRating
DC Grid-No	2 V	MaximumRating;PublishedValue1
DC Grid-No	220 V	MaximumRating;PublishedValue2
DC Grid-No.1 Voltage, Negative-bias value	65 V	MaximumRating
Peak Negative Pulse Grid-No.1 Voltage	330 V	MaximumRating
Peak Cathode Current	950 mA	MaximumRating
Average Cathode Current	275 mA	MaximumRating
Grid-No	2 W	MaximumRating;PublishedValue1
Grid-No	3 W	MaximumRating;PublishedValue2
Grid-No	-6 W	MaximumRating;PublishedValue3
For grid-resistor-bias operation	0.47 megohm	MaximumCircuitValue

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to Plate	1.2 pF	Capacitance
Grid No.1 to Cathode, Heater, Grid No	2 pF	Capacitance;PublishedValue1
Grid No.1 to Cathode, Heater, Grid No	3 pF	Capacitance;PublishedValue2
Grid No.1 to Cathode, Heater, Grid No	22 pF	Capacitance;PublishedValue3

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate to Cathode, Heater, Grid No	2 pF	Capacitance;PublishedValue1
Plate to Cathode, Heater, Grid No	3 pF	Capacitance;PublishedValue2
Plate to Cathode, Heater, Grid No	9 pF	Capacitance;PublishedValue3

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Positive-Pulse Plate Voltage*	6500 V	Characteristic
Grid-No	2 V	Characteristic;PublishedValue1
Grid-No	125 V	Characteristic;PublishedValue2
Grid-No	125 V	Characteristic;PublishedValue3
Grid-No	125 V	Characteristic;PublishedValue4
Grid-No.1 (Control-Grid) Voltage	-20 V	Characteristic;PublishedValue1
Grid-No.1 (Control-Grid) Voltage	0 V	Characteristic;PublishedValue2
Grid-No.1 (Control-Grid) Voltage	-20 V	Characteristic;PublishedValue3
Plate Hesistance (Approx.) –	18000 ohm	Characteristic
– –	470 mA	Characteristic;PublishedValue1
– –	45 mA	Characteristic;PublishedValue2
Grid-No	2 mA	Characteristic;PublishedValue1
Grid-No	32 mA	Characteristic;PublishedValue2
Grid-No	1 mA	Characteristic;PublishedValue3
Grid-No	-5 mA	Characteristic;PublishedValue4
Grid-No.1 Voltage for plate current	1 mA	Characteristic;PublishedValue1
Grid-No.1 Voltage for plate current	-75 mA	Characteristic;PublishedValue2
Grid-No.1 Voltage for plate current	-32 mA	Characteristic;PublishedValue3