

ELECTRONIC TUBE REFERENCE

22JF6

Power - TV Horizontal Output (sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
BEAMPOWER

Beam-power tube intended for television horizontal-deflection service, with multi-kilovolt positive and negative plate-pulse ratings tied to the horizontal scanning cycle.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9QU	BASE PINS	9
NOMINAL HEATER	22 V / 450 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	12000 Ω
TRANSCONDUCTANCE	0.01 S
AMPLIFICATION FACTOR	4.1
MAXIMUM PLATE VOLTAGE	770 V
MAXIMUM SCREEN VOLTAGE	220 V
MAXIMUM PLATE DISSIPATION	17 W
MAXIMUM SCREEN DISSIPATION	3.5 W
MAXIMUM CATHODE CURRENT	275 mA
<i>Supplied 22JF6 sheet identifies this as a heater-voltage variant of 6JF6. Promoted beam-power electrical fields were populated from the exact parent-type technical data; heater values remain specific to the supplied 22JF6 sheet.</i>	

22JF6 is a beam-power tube for television deflection or power-amplifier service. The supplied RCA manual excerpt was reviewed for heater data, physical sections, maximum ratings, electrical characteristics, capacitances, and stated operating conditions.

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

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	22 V	Nominal heater rating from supplied sheet
Heater current	450 mA	Nominal heater rating from supplied sheet
Plate resistance	12000 ohm	ExactParentElectricalData 6JF6
Transconductance	10000 uS	ExactParentElectricalData 6JF6

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	770 V	ExactParentElectricalData 6JF6
Maximum screen-grid voltage	220 V	ExactParentElectricalData 6JF6
Maximum plate dissipation	17 W	ExactParentElectricalData 6JF6
Maximum screen-grid dissipation	3.5 W	ExactParentElectricalData 6JF6
Maximum average cathode current	275 mA	ExactParentElectricalData 6JF6
Peak positive-pulse plate voltage	6500 V	ExactParentElectricalData 6JF6
Peak cathode current	950 mA	ExactParentElectricalData 6JF6

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	Heater Voltage (ac/dc) 6.3 16.8 22 volts
Heater Current 1.6 0.6	450 mA	Heater Current 1.6 0.6 0.45 amperes
Heater Warm-up Time (Average) 11	11 s	Heater Warm-up Time (Average) 11 11 seconds
DC Plate Supply Voltage	770 V	DC Plate Supply Voltage 770 volts
Peak Positive-Pulse Plate Voltage*	6500 V	Peak Positive-Pulse Plate Voltage* 6500 volts
Peak Negative-Pulse Plate Voltage	1500 V	Peak Negative-Pulse Plate Voltage 1500 volts
DC Grid-No.3 Voltage"	100 V	DC Grid-No.3 Voltage" 100 volts
DC Grid-No.2 Voltage	220 V	DC Grid-No.2 Voltage 220 volts
Peak Negative-Pulse Grid-No.1 Voltage	330 V	Peak Negative-Pulse Grid-No.1 Voltage 330 volts
Peak Cathode Current	950 mA	Peak Cathode Current 950 mA
Plate Dissipation!	17 W	Plate Dissipation! 17 watts
# Pulse duration must not exceed 15% of a horizontal scanning cycle (	10 us	# Pulse duration must not exceed 15% of a horizontal scanning cycle (10 microseconds).
ference ; a typical value for this voltage is	50 V	ference ; a typical value for this voltage is 50 volts.
Plate Voltage	330 V	Plate Voltage 330 volts
Grid-No.3 (Suppressor-Grid) Voltage, Positive value	0 V	Grid-No.3 (Suppressor-Grid) Voltage, Positive value 0 volts
Grid-No.2 (Screen-Grid) Supply Voltage	330 V	Grid-No.2 (Screen-Grid) Supply Voltage 330 volts
Grid-No.1 (Control-Grid) Voltage, Positive value	0 V	Grid-No.1 (Control-Grid) Voltage, Positive value 0 volts
Plate Dissipation	5 W	Plate Dissipation 5 watts
Grid-No.2 Input	1.1 W	Grid-No.2 Input 1.1 watts
Maximum plate/supply voltage	770 V	Published section value
Maximum screen-grid voltage	770 V	Published section value
Maximum plate dissipation	17 W	Published section value

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance –	10000 μS	Transconductance — 10000 / μ hos
Grid-No.2 Current – 32f	2.5 mA	Grid-No.2 Current — 32f 2.5 mA
Plate Voltage 200	60 V	Plate Voltage 200 60 volts
Grid-No.2 Supply Voltage 150	150 V	Grid-No.2 Supply Voltage 150 150 volts
Plate Resistance (Approx.)	60000 ohm	Plate Resistance (Approx.) 60000 ohms
Transconductance (Grid No.1 to Plate)	11500 μS	Transconductance (Grid No.1 to Plate) 11500 / μ hos
Plate Current 25	55 mA	Plate Current 25 55 mA
Plate resistance	60000 ohm	Published section value

TUBE TINKER

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