

ELECTRONIC TUBE REFERENCE

6JM6A

Power - TV Horizontal Output (sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
BEAMPOWER

Beam-power tube designed for horizontal-deflection amplification in color and black-and-white television receivers.

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	0.0073 S
AMPLIFICATION FACTOR	4.4
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM SCREEN VOLTAGE	220 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 source; additional conditions retained in parameter table.</i>	

Beam-power tube used as a horizontal-deflection amplifier in color and black-and-white television receivers.

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	1.2 A	—
Grid1 To Plate Capacitance	0.6 pF	—
Input Capacitance	16 pF	—
Output Capacitance	7 pF	—
Plate Voltage	250 V	—
Screen Voltage	150 V	—
Grid Voltage	-22.5 V	—
Plate Resistance	15000 ohm	—
Transconductance	7300 uS	—
Plate Current	70 mA	—
Screen Current	2.4 mA	—
TriodeAmplificationFactor	4.4	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Supply Voltage Maximum	770 V	HorizontalDeflection
Peak Positive Pulse Plate Voltage	6500 V	HorizontalDeflection
Peak Negative Pulse Plate Voltage	1500 V	HorizontalDeflection
Screen Voltage Maximum	220 V	HorizontalDeflection
Plate Dissipation Maximum	17.5 W	HorizontalDeflection
Screen Dissipation Maximum	3.5 W	HorizontalDeflection

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PeakCathodeCurrentMaximum	550 mA	HorizontalDeflection



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)	16.8 V	Published in approved 17JM6A target datasheet entry; Section1
Heater Current	450 mA	Published in approved 17JM6A target datasheet entry; Section1
Heater Warm-up Time (Average)	11 seconds	Published in approved 17JM6A target datasheet entry; Section1
Grid-No.1-Circuit Resistance	1 MΩ	Published in approved 17JM6A target datasheet entry; Section1
DC Plate Supply Voltage	770 V	Published in approved 17JM6A target datasheet entry; Section1
Peak Positive-Pulse Plate Voltage*	6500 V	Published in approved 17JM6A target datasheet entry; Section1
Peak Negative-Pulse Plate Voltage	1500 V	Published in approved 17JM6A target datasheet entry; Section1
DC Grid-No.3 Voltage	70 V	Published in approved 17JM6A target datasheet entry; Section1
DC Grid-No.2 Voltage	220 V	Published in approved 17JM6A target datasheet entry; Section1
DC Grid-No.1 Voltage, Negative-bias value	55 V	Published in approved 17JM6A target datasheet entry; Section1
Peak Negative-Pulse Grid-No.1 Voltage	330 V	Published in approved 17JM6A target datasheet entry; Section1
Average Cathode Current	175 mA	Published in approved 17JM6A target datasheet entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Cathode Current	550 mA	Published in approved 17JM6A target datasheet entry; Section1
Plate Dissipation**	17.5 W	Published in approved 17JM6A target datasheet entry; Section1
Grid-No.2 Input	3.5 W	Published in approved 17JM6A target datasheet entry; Section1
# Pulse duration must not exceed 15% of a horizontal scanning cycle (	10 microseconds	Published in approved 17JM6A target datasheet entry; Section1
Heater Voltage (ac/dc) 6.3 12.6	16.8 V	Published in approved 17JM6A target datasheet entry; Section1
Heater Current 1.2 0.6	450 mA	Published in approved 17JM6A target datasheet entry; Section1
Heater Warm-up Time (Average) 11	11 seconds	Published in approved 17JM6A target datasheet entry; Section1
Heater Voltage (ac/dc) 6.3	18.9 V	Published in approved 17JM6A target datasheet entry; Section1
Heater Current 0.45	150 mA	Published in approved 17JM6A target datasheet entry; Section1
Plate Voltage 300	300 V	Published in approved 17JM6A target datasheet entry; Section1

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to Plate	0.6 pF	Published in approved 17JM6A target datasheet entry; Section1
Grid No.1 to Cathode. Heater, Grid No.2, and Grid No.3	16 pF	Published in approved 17JM6A target datasheet entry; Section1
Plate to Cathode, Heater, Grid No. 2, and Grid No	3 pF	Published in approved 17JM6A target datasheet entry; Section1
Grid No.1 to Plate	0.34 pF	Published in approved 17JM6A target datasheet entry; Section1
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3	16 pF	Published in approved 17JM6A target datasheet entry; Section1
Plate to Cathode, Heater, Grid No.2, and Grid No.3	7 pF	Published in approved 17JM6A target datasheet entry; Section1
Grid No.1 to Plate	0.01 pF	Published in approved 17JM6A target datasheet entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Shield	5.5 pF	Published in approved 17JM6A target datasheet entry; Section1
Shield	3.4 pF	Published in approved 17JM6A target datasheet entry; Section1
Grid to Plate	1.7 pF	Published in approved 17JM6A target datasheet entry; Section1
and Internal Shield	3.2 pF	Published in approved 17JM6A target datasheet entry; Section1
and Internal Shield	2.2 pF	Published in approved 17JM6A target datasheet entry; Section1

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage 5000 55 250	150 V	Published in approved 17JM6A target datasheet entry; Section1
Grid-No.2 (Screen-Grid) Voltage 150 150 150	150 V	Published in approved 17JM6A target datasheet entry; Section1
Grid-No.1 (Control-Grid) Voltage – 0 –22.5	-22.5 V	Published in approved 17JM6A target datasheet entry; Section1
Plate Resistance (Approx.)	15000 Ω	Published in approved 17JM6A target datasheet entry; Section1
Plate Current – 345*	65 mA	Published in approved 17JM6A target datasheet entry; Section1
Grid-No.2 Current – 30*	1.8 mA	Published in approved 17JM6A target datasheet entry; Section1
current of 1 #A – 100 –	-42 V	Published in approved 17JM6A target datasheet entry; Section1

TUBE TINKER

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and their source documents.

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