



ELECTRONIC TUBE REFERENCE

21KA6

Power - TV Horizontal Output (sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

BEAMPOWER

Beam-power television deflection tube with high positive and negative pulse-voltage ratings explicitly tied to the horizontal scanning cycle.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	12
NOMINAL HEATER	21 V / 460 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Beam Power	
PLATE RESISTANCE	11000 Ω
AMPLIFICATION FACTOR	4.7
MAXIMUM PLATE VOLTAGE	770 V
MAXIMUM SCREEN VOLTAGE	770 V
MAXIMUM PLATE DISSIPATION	18 W
MAXIMUM CATHODE CURRENT	800 mA
Functional section details are deferred by supplied sheet to 16KA5.	

21KA6 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](#)

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

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	21 V	—
Heater Current	450 mA	—
Heater Warm-up Time	11 s	—
Electrical Characteristics Reference	16KA5 text	SuppliedSheetStatesSimilarExceptHeaterCharacteristics



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	21 V	Heater Voltage 21 volts
Heater Current	460 mA	Heater Current 0.46 ampere
Heater Warm-up Time	11 s	Heater Warm-up Time 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

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Negative-Pulse Plate Voltage	1500 V	Peak Negative-Pulse Plate Voltage 1500 volts
Grid-No.3 Voltage, Positive-bias value	70 V	Grid-No.3 Voltage, Positive-bias value 70 volts
Grid-No.2 Voltage	220 V	Grid-No.2 Voltage 220 volts
Grid-No.1 Voltage, Negative-bias value	65 V	Grid-No.1 Voltage, Negative-bias value 65 volts
Peak Negative-Pulse Grid-No.1 Voltage	330 V	Peak Negative-Pulse Grid-No.1 Voltage 330 volts
Average Cathode Current	230 mA	Average Cathode Current 230 mA
Peak Cathode Current	800 mA	Peak Cathode Current 800 mA
Plate Dissipation	18 W	Plate Dissipation 18 watts
Grid-No.2 Input	3.6 W	Grid-No.2 Input 3.6 watts
Grid-No.1-Circuit Resistance	1 Mohm	Grid-No.1-Circuit Resistance 1 megohm
# 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).
Heater Voltage 21.5	29 V	Heater Voltage 21.5 29 volts
Heater Current 0.45	300 mA	Heater Current 0.45 0.3 ampere
Maximum plate/supply voltage	770 V	Published section value
Maximum screen-grid voltage	770 V	Published section value

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage 6000 60 60	130 V	Plate Voltage 6000 60 60 130 volts
Voltage 0 0 25	0 V	Voltage 0 0 25 0 volts
Grid-No.2 (Screen-Grid) Voltage 130 130 130	130 V	Grid-No.2 (Screen-Grid) Voltage 130 130 130 130 volts
Grid-No, 1 (Control-Grid) Voltage 0 0 —	20 V	Grid-No, 1 (Control-Grid) Voltage 0 0 —20 volts
Plate Resistance (Approx.) — — —	11000 ohm	Plate Resistance (Approx.) — — — 11000 ohms
plate current of	1 mA	plate current of 1 mA —66 — — —33 volts
Plate resistance	11000 ohm	Published section value
Amplification factor	4.7	Published section value



TUBE TINKER

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and their source documents.

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