

ELECTRONIC TUBE REFERENCE

2GK5

Voltage - Triode (single high frequency) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

High-mu frame-grid miniature triode used as a grounded-cathode RF amplifier in VHF television tuners.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7FP	BASE PINS	7
NOMINAL HEATER	2.3 V / 600 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

7FP - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – K	A	K – Cathode	CONNECTED
PIN2 – G1	A	G1 – Control Grid	CONNECTED
PIN3 – H	–	H – Heater	CONNECTED
PIN4 – H	–	H – Heater	CONNECTED
PIN5 – P	A	P – Plate (Anode)	CONNECTED
PIN6 – IS	A	IS – Internal Screen	CONNECTED
PIN7 – K	A	K – Cathode	CONNECTED

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	5400 Ω
TRANSCONDUCTANCE	0.015 S
AMPLIFICATION FACTOR	75
MAXIMUM PLATE VOLTAGE	200 V
MAXIMUM PLATE DISSIPATION	2.5 W
MAXIMUM CATHODE CURRENT	22 mA
MAXIMUM HEATER-CATHODE VOLTAGE	200 V
WARM-UP TIME	11 s
<i>Reference/heater-variant sheet; no unprinted electrical ratings were imported from the referenced 6-series datasheet.</i>	

High-mu frame-grid miniature triode used as a grounded-cathode RF amplifier in VHF television tuners.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1961 Tung Sol

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

1961 TUNG SOL

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	15000 μ S	PlateVoltage=135V
Plate Resistance	5400 ohm	PlateVoltage=135V



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Amperex Condensed

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

1963 AMPEREX CONDENSED

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	135 V	VHFAmplifier
Control-grid voltage	-1 V	VHFAmplifier
Plate current	11 mA	VHFAmplifier

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	5200 Ω	Section1
Transconductance	13000 μ S	Section1
Amplification factor	70	Section1

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1965 Westinghouse Data Book

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

1965 WESTINGHOUSE DATA BOOK

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	2.35 V	—
Heater Current	600 mA	—
ControlledWarmupHeater	1 boolean	—
Heater Warmup Time	11 s	—
Plate Voltage	135 V	—
Grid Voltage	-1 V	—
Plate Current	11.5 mA	—
Plate Resistance	5400 ohm	—
Transconductance	15000 uS	—
Amplification Factor	78	—
GridCutoffBias	-4.2 V	—
Grid To Plate Capacitance	0.52 pF	—
Input Capacitance	3 pF	—
Output Capacitance	3.5 pF	—
Noise Figure	4.7 dB	~200MHz optimized amplifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterCathodeVoltageMaximum	100 V	—

1966 Tung Sol Electronic Tubes 1 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 1 OF 4
Section 1 · Triode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
GRID TO PLATE	0.52 pF	Capacitances GRID TO PLATE 0.52 pf
HEATER TO CATHODE	2.5 pF	Capacitances HEATER TO CATHODE 2.5 pf
LIMITS OF SUPPLIED CURRENT	40 mA	Capacitances LIMITS OF SUPPLIED CURRENT 600 * 40 MA.
HOT INPUT CAPACITANCE	11.2 pF	ClassA HOT INPUT CAPACITANCE - 200 Mc/s - GROUNDED PLATE 11.2 pf

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PLATE VOLTAGE	200 V	Maximum Ratings PLATE VOLTAGE 200 VOLTS
GRID VOLTAGE	-50 V	Maximum Ratings GRID VOLTAGE -50 VOLTS
PLATE DISSIPATION	2.5 W	Maximum Ratings PLATE DISSIPATION 2.5 WATTS
DC CATHODE CURRENT	22 mA	Maximum Ratings DC CATHODE CURRENT 22 MA.
GRID CIRCUIT RESISTANCE - SELF BIAS	1 Mohm	Maximum Ratings GRID CIRCUIT RESISTANCE -SELF BIAS 1.0 MEGOHMS

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PLATE VOLTAGE	135 V	ClassA PLATE VOLTAGE 135 VOLTS
GRID VOLTAGE	-1 V	ClassA GRID VOLTAGE -1.0 VOLTS
PLATE CURRENT	11.5 mA	ClassA PLATE CURRENT 11.5 MA.
TRANSCONDUCTANCE	15 MMHOS	ClassA TRANSCONDUCTANCE 15.000 μMHOS
PLATE RESISTANCE Approx	5.4 ohm	ClassA PLATE RESISTANCE Approx. 5.400 OHMS
HOT INPUT RESISTANCE	275 ohm	ClassA HOT INPUT RESISTANCE - 200 Mc/s - GROUNDED PLATE 275 OHMS



SOURCE OPERATING CONDITIONS

1968 General Electric Co

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

1968 GENERAL ELECTRIC CO

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltageNominal	2.3 V	—
HeaterOrFilamentCurrentNominal	600 mA	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1971 RCA HB3 Binder 4 of 7

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

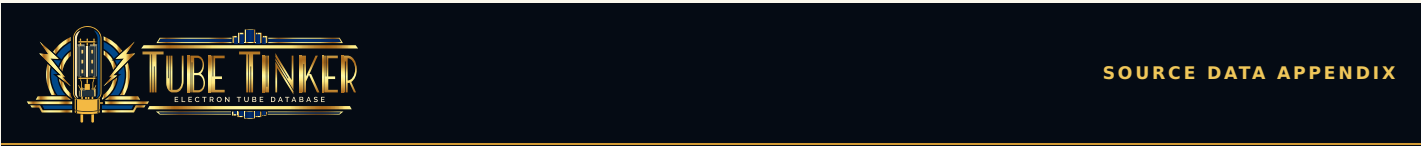
1971 RCA HB3 BINDER 4 OF 7

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	2.3 V	—
Heater current	600 mA	—
Maximum plate voltage	200 V	—
Maximum plate dissipation	2.5 W	—
Maximum DC cathode current	22 mA	—
Plate voltage	135 V	ClassA
Grid voltage	-1 V	ClassA
Plate current	11.5 mA	ClassA
Noise figure at 200 MHz	4.7 dB	200MHz

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	13500 μ S	ClassA
Amplification factor	75	ClassA
Plate resistance	5400 ohm	ClassA
Hot input resistance at 200 MHz	275 ohm	200MHz

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Hot input capacitance at 200 MHz	11.2 pF	200MHz



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 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage (ac/dc) 2.3 2.8 4	6.3 V	Published in approved 2GK5 target datasheet entry; Section1
Heater Current 0.6 0.45 0.3	180 mA	Published in approved 2GK5 target datasheet entry; Section1
Negative-bias value	50 V	Published in approved 2GK5 target datasheet entry; Section1
Positive-bias value	0 V	Published in approved 2GK5 target datasheet entry; Section1
Average Cathode Current	22 mA	Published in approved 2GK5 target datasheet entry; Section1
Plate Dissipation	2.5 W	Published in approved 2GK5 target datasheet entry; Section1
Plate Voltage	135 V	Published in approved 2GK5 target datasheet entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid Voltage	-1 V	Published in approved 2GK5 target datasheet entry; Section1
Plate Resistance (Approx.)	5400 Ω	Published in approved 2GK5 target datasheet entry; Section1
Transconductance	15000 μS	Published in approved 2GK5 target datasheet entry; Section1
Plate Current	11.5 mA	Published in approved 2GK5 target datasheet entry; Section1
Grid-Circuit Resistance, for cathode-bias operation	1 MΩ	Published in approved 2GK5 target datasheet entry; Section1
• Measured at	200 MHz	Published in approved 2GK5 target datasheet entry; Section1
f For a neutralized triode amplifier at a frequency of	200 MHz	Published in approved 2GK5 target datasheet entry; Section1
Heater Voltage (ac/dc) 6.3 10	16 V	Published in approved 2GK5 target datasheet entry; Section1
Heater Current 0.76 0.45	300 mA	Published in approved 2GK5 target datasheet entry; Section1
11	11 seconds	Published in approved 2GK5 target datasheet entry; Section1
Plate Supply Voltage	605 V	Published in approved 2GK5 target datasheet entry; Section1
Plate Voltage	330 V	Published in approved 2GK5 target datasheet entry; Section1
Grid-No.2 Supply Voltage	605 V	Published in approved 2GK5 target datasheet entry; Section1
Grid-No.2 (Screen-Grid) Voltage	330 V	Published in approved 2GK5 target datasheet entry; Section1
Grid-No.1 (Control-Grid) Voltage, Negative-bias value	100 V	Published in approved 2GK5 target datasheet entry; Section1
Cathode Current	65 mA	Published in approved 2GK5 target datasheet entry; Section1
Plate Dissipation	13.2 W	Published in approved 2GK5 target datasheet entry; Section1
Grid-No.2 Input, Peak	4 W	Published in approved 2GK5 target datasheet entry; Section1
Grid-No.2 Input, Average	2 W	Published in approved 2GK5 target datasheet entry; Section1
Plate Supply Voltage	250 V	Published in approved 2GK5 target datasheet entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No.2 Supply Voltage	250 V	Published in approved 2GK5 target datasheet entry; Section1
Cathode-Bias Resistor	135 Ω	Published in approved 2GK5 target datasheet entry; Section1
Plate Resistance (Approx.)	38000 Ω	Published in approved 2GK5 target datasheet entry; Section1
Transconductance	11300 μS	Published in approved 2GK5 target datasheet entry; Section1
Peak AF Grid-No.1 Voltage	7.3 V	Published in approved 2GK5 target datasheet entry; Section1
Zero-Signal Plate Current	48 mA	Published in approved 2GK5 target datasheet entry; Section1
Maximum-Signal Plate Current	50.6 mA	Published in approved 2GK5 target datasheet entry; Section1
Zero-Signal Grid-No.2 Current	5.5 mA	Published in approved 2GK5 target datasheet entry; Section1
Maximum-Signal Grid-No.2 Current	10 mA	Published in approved 2GK5 target datasheet entry; Section1

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid to Plate	0.62 pF	Published in approved 2GK5 target datasheet entry; Section1
Grid to Cathode, Heater, and Internal Shield	5 pF	Published in approved 2GK5 target datasheet entry; Section1
Plate to Cathode, Heater, and Internal Shield	3.5 pF	Published in approved 2GK5 target datasheet entry; Section1
Internal Shield	10 pF	Published in approved 2GK5 target datasheet entry; Section1
Internal Shield	7 pF	Published in approved 2GK5 target datasheet entry; Section1

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input Resistance*	275 Ω	Published in approved 2GK5 target datasheet entry; Section1
Input Capacitance*	11.2 pF	Published in approved 2GK5 target datasheet entry; Section1
Grid Voltage (Approx.) for transconductance of	1500 μS	Published in approved 2GK5 target datasheet entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid Voltage (Approx.) for transconductance of 1500 /imhos	-2.5 V	Published in approved 2GK5 target datasheet entry; Section1

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes, and their source documents.

[Catalog](#)
[Tube types](#)
[Full books](#)
[Blog](#)
[Feedback & corrections](#)

© 2026 Tube Tinker