

ELECTRONIC TUBE REFERENCE

6BN4A

Voltage - Triode (single high frequency) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
TRIODE

Medium-mu triode for television and general amplifier applications, including VHF receiving circuits requiring useful voltage and RF gain.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7EG	BASE PINS	7
NOMINAL HEATER	6.3 V / 200 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

7EG - 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 – K	A	K – Cathode	CONNECTED
PIN7 – G1	A	G1 – Control Grid	CONNECTED

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	5400 Ω
TRANSCONDUCTANCE	0.0077 S
AMPLIFICATION FACTOR	43
MAXIMUM PLATE VOLTAGE	275 V
MAXIMUM PLATE DISSIPATION	2.2 W
MAXIMUM CATHODE CURRENT	22 mA
<i>Published promoted values applied where applicable; additional table data retained as parameters.</i>	

Medium-mu triode for television and general amplifier applications. The supplied datasheet was read for heater data, maximum ratings, characteristics, typical operating information, and interelectrode capacitances where published.



SOURCE OPERATING CONDITIONS

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

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	150 V	ClassA

CHARACTERISTIC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	9 mA	ClassA
TransconductancePublished	7700 μ S	ClassA



SOURCE OPERATING CONDITIONS

1965 Sylvania Electronic Tubes Vol3

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

1965 SYLVANIA ELECTRONIC TUBES VOL3

Section 1 · Triode

CHARACTERISTICS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	200 mA	—

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	200 V	—
Maximum plate dissipation	2 W	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical plate voltage	150 V	—
Typical plate current	12 mA	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	1.8 pF	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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 capacitance	1.2 pF	—
Input capacitance	3.2 pF	—
Output capacitance	1.4 pF	—
Heater-to-cathode capacitance	2.8 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	150 V	ClassA; VHF
Plate current	9 mA	ClassA; VHF

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification factor	43	—
Plate resistance	5.4 kΩ	—
Transconductance	7700 μS	—

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

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage (AC or DC)	6.3 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Current	200 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid to plate	1.2	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid to cathode and heater	3.2	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate to cathode and heater	1.4	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Supply Voltage	150 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Resistance (Approx)	5400 ohm	Published datasheet value; multiple values represent separate source-table limits or conditions.
Transconductance	7700	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Current	9 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid Volts (Approx.) for plate $\mu_a = 100$ – published value 1	100 V	Published datasheet value; multiple values represent separate source-table limits or conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid Volts (Approx.) for plate $\mu_a = 100$ – published value 2	-6 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 1 -Cathode – published value 1	1	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 1 -Cathode – published value 2	5	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 2 -Grid – published value 1	2	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 2 -Grid – published value 2	6	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 3 -Heater – published value 1	3	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 3 -Heater – published value 2	7	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 4 -Heater	4	Published datasheet value; multiple values represent separate source-table limits or conditions.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PLATE VOLTAGE	275 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Positive-bias value	0 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
CATHODE CURRENT	22 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
PLATE DISSIPATION	2.2 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Heater negative with respect to cathode	100 V	Published datasheet value; multiple values represent separate source-table limits or conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater positive with respect to cathode	100 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid-Circuit Resistance	0.5 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.



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

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid to Cathode and Heater	3.2 pF	Published datasheet value
Plate to Cathode and Heater	1.4 PF	Published datasheet value
Internal Shield	3.3 pF	Published datasheet value

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	275 volts	Published datasheet value
Grid Voltage, Positive-bias value	0 volts	Published datasheet value
Plate-Supply Voltage	150 volts	Published datasheet value
Cathode-Bias Resistor	220 ohms	Published datasheet value
Plate Resistance (Approx.)	5400 ohms	Published datasheet value
Plate Current	9 mA	Published datasheet value
Grid-Circuit Resistance	0.5 megohm	Published datasheet value
age) 11	11 seconds	Published datasheet value
Plate-Supply Voltage	330 volts	Published datasheet value
Grid-No.2 Voltage	110 volts	Published datasheet value
Cathode Current	13 mA	Published datasheet value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	0 A/V	Promoted from published datasheet table
Amplification Factor	43	Promoted from published datasheet table

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No. 1 Voltage, Positive peak value	60 volts	Published datasheet value
Maximum Plate Voltage	275 V	Promoted from published datasheet table
Maximum Screen Voltage	110 V	Promoted from published datasheet table