

ELECTRONIC TUBE REFERENCE

3BN4A

Voltage - Triode (single high frequency) electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
TRIODE

Medium-mu miniature triode used as an RF amplifier in grid-drive VHF television tuner circuits.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7EG	BASE PINS	7
NOMINAL HEATER	3.15 V / 600 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	6000 Ω
TRANSCONDUCTANCE	0.008 S
AMPLIFICATION FACTOR	48
MAXIMUM PLATE VOLTAGE	275 V
MAXIMUM PLATE DISSIPATION	2.2 W
MAXIMUM CATHODE CURRENT	22 mA
WARM-UP TIME	11 s
<i>Published ratings/characteristics promoted where semantically applicable; supplemental values retained in parameter table.</i>	

Medium-mu miniature triode used as an RF amplifier in grid-drive VHF television tuner circuits.



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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Cathode Current	22 mA	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater To Cathode Capacitance	2.8 pF	—



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	3 V	—
Heater Current	450 mA	—
ControlledWarmupHeater	1 boolean	—
Heater Warmup Time	11 s	—
Grid To Plate Capacitance	1.2 pF	—
Input Capacitance	3.2 pF	—
Output Capacitance	1.4 pF	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	6000 ohm	—
Transconductance	8000 uS	—
Amplification Factor	48	—
Application	VHF grounded-grid RF amplifier	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage Maximum	275 V	—
Plate Dissipation Maximum	2.2 W	—
Cathode Current Maximum	22 mA	—
GridCircuitResistanceMaximum	0.5 Mohm	—
Plate Voltage	150 V	GroundedGridRF



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1966 Tung Sol Electronic Tubes 1 of 4

SOURCE PDF

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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	3.15 V	Published heater rating
Heater current	600 mA	Published heater rating

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	1.2 pF	WithExternalShield
Input capacitance	3.2 pF	WithExternalShield



SOURCE DATA APPENDIX

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
Current – published value 1	0	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Current – published value 2	600	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Current – published value 3	0.04	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Voltage (AC or Ix) at heater – published value 1	0	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Voltage (AC or Ix) at heater – published value 2	0	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Voltage (ac or dc) at 0.600 A – published value 1	0 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Voltage (ac or dc) at 0.600 A – published value 2	0.6 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Voltage (ac or dc) at 0.600 A – published value 3	3.15 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Warm-up Time (Average)	11	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Voltage (ac or dc) at 0.450 A – published value 1	0 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.
Voltage (ac or dc) at 0.450 A – published value 2	0.45 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage (ac or dc) at 0.450 A – published value 3	3 V	Published datasheet value; multiple numbers on a row represent separate source limits or conditions.



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 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heat Voltage (ac/dc) 2.35 3	6.3 V	Heat Voltage (ac/dc) 2.35 3 6.3 volts
Heater Current 0.6 0.45	200 mA	Heater Current 0.6 0.45 0.2 ampere
Plate Voltage	275 V	Plate Voltage 275 volts
Grid Voltage, Positive-bias value	0 V	Grid Voltage, Positive-bias value 0 volts
Plate-Supply Voltage	330 V	Plate-Supply Voltage 330 volts
Grid-No.2 Voltage	110 V	Grid-No.2 Voltage 110 volts
Grid-No. 1 Voltage, Positive peak value	60 V	Grid-No. 1 Voltage, Positive peak value 60 volts
Cathode Current	13 mA	Cathode Current 13 mA
Maximum plate voltage	275 V	Published maximum rating
Maximum screen-grid voltage	110 V	Published maximum rating

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate-Supply Voltage	150 V	Plate-Supply Voltage 150 volts
Plate Resistance (Approx.)	5400 ohm	Plate Resistance (Approx.) 5400 ohms
Plate Current	9 mA	Plate Current 9 mA
Grid-Circuit Resistance	0.5 Mohm	Grid-Circuit Resistance 0.5 megohm
Heater Voltage (ac/dc) 3.15 4.2 6.3	12.6 V	Heater Voltage (ac/dc) 3.15 4.2 6.3 12.6 volts

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Current 0.6 0.45 0.3	150 mA	Heater Current 0.6 0.45 0.3 0.15 ampere
Plate resistance	5400 ohm	Published section characteristic
Amplification factor	43	Published section characteristic