

ELECTRONIC TUBE REFERENCE

9002

Voltage - Triode (single) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
TRIODE

Miniature medium-mu triode for AF/RF amplification and oscillator service through approximately 500 MHz.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7BS	BASE PINS	7
NOMINAL HEATER	6.3 V / 150 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

7BS - TERMINAL PINOUT

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

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	11400 Ω
TRANSCONDUCTANCE	0.0022 S
AMPLIFICATION FACTOR	25
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	1.6 W
<i>First published Class-A operating point used for promoted characteristics.</i>	

Seven-pin miniature medium-mu triode for AF and RF amplifier or oscillator service through 500 MHz.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1956 RCA Transmitting Tubes

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

1956 RCA TRANSMITTING TUBES

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltage	6.3 V	—
HeaterOrFilamentCurrent	150 mA	—
EquivalentElectricalType	955	Except interelectrode capacitances

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
MaximumOperatingFrequency	500 MHz	Reduced ratings may apply at upper frequencies

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

195X General Electric Essential Characteristics

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

195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	250 V	Published handbook rating
Plate voltage	250 V	ClassA
Control-grid bias	7 V	ClassA
Plate current	6.3 mA	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	11400 ohm	Published handbook characteristic
Transconductance	2200 μ S	Published handbook characteristic
Amplification factor	25	Published handbook characteristic
Heater/filament voltage	6.3 V	Published heater/filament rating
Heater/filament current	150 mA	Published heater/filament rating



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

195X Raytheon Special Purpose Tubes

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

195X RAYTHEON SPECIAL PURPOSE TUBES

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	UHF Oscillator
Control-grid voltage	-7 V	UHF Oscillator
Plate current	6.3 mA	UHF Oscillator

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification factor	25	Section 1
Transconductance	2200 μ S	Section 1



SOURCE DATA APPENDIX

1960 RCA Industrial and Communications Types

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

1960 RCA INDUSTRIAL AND COMMUNICATIONS TYPES

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltage	6.3 V	—
HeaterOrFilamentCurrent	150 mA	—
MaximumOperatingFrequency	500 MHz	Approximate/useful limit
EquivalentElectricalType	955	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1961 Tung Sol

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

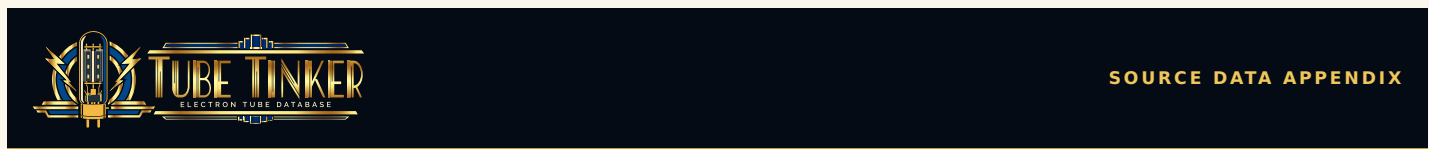
1961 TUNG SOL

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	150 mA	—
Plate current	2.5 mA	ClassA;Vp=90V

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	1.4 pF	—
Input capacitance	1.2 pF	—
Output capacitance	1.1 pF	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	11400 ohm	ClassA;Vp=250V
Transconductance	2200 uS	ClassA;Vp=250V



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1971 RCA HB3 Binder 3 of 7

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

1971 RCA HB3 BINDER 3 OF 7

Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage	6.3 V	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Current	0.15	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Grid to Plate	1.4	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Grid to Cathode	1.2	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Plate to Cathode	1.1	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Pin 1 -Plate – published value 1	1	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Pin 1 -Plate – published value 2	5	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Pin 1 -Plate – published value 3	5	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Pin 2 -Cathode – published value 1	2	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Pin 2 -Cathode – published value 2	6	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Pin 3 -Heater – published value 1	3	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Pin 3 -Heater – published value 2	7	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Pin 4 -Heater	4	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Plate – published value 1	90 V	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Plate – published value 2	135 V	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Plate – published value 3	180 V	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Plate – published value 4	250 V	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
'Grid – published value 1	-2.5 V	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
'Grid – published value 2	-5 V	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
'Grid – published value 3	-7 V	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Plate Res – published value 1	14700 ohm	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Plate Res – published value 2	13200 ohm	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Res – published value 3	12500 ohm	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Plate Res – published value 4	11400 ohm	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Plate Cur – published value 1	2.5 mA	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Plate Cur – published value 2	3.5 mA	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Plate Cur – published value 3	4.5 mA	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Plate Cur – published value 4	6.3 mA	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	250 V	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Plate Dissipation	1.6 mA	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.

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