

ELECTRONIC TUBE REFERENCE

955

Voltage - Triode (single) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
TRIODE

Acorn medium-mu triode for AF/RF amplification and oscillator service through approximately 600 MHz.

GENERAL CHARACTERISTICS

BASE DESIGNATION	5BC	BASE PINS	5
NOMINAL HEATER	6.3 V / 150 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

5BC - TERMINAL PINOUT

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

Acorn medium-mu triode for AF and RF amplifier or oscillator service through 600 MHz.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1938 RCA Transmitting Tubes

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

1938 RCA TRANSMITTING TUBES

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	6.3 V	Nominal
HeaterCurrentNominal	150 mA	Nominal
Maximum Plate Voltage	180 V	—
RFPowerOutput	0.5 W	ClassC Telegraphy

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	2000 μ S	Typical
Amplification Factor	25	Typical
Plate Resistance	12500 ohm	Typical



SOURCE OPERATING CONDITIONS

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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	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
MaximumOperatingFrequency	600 MHz	Reduced ratings may apply at upper frequencies
Plate Dissipation	1.6 W	ClassA



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



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	600 MHz	Approximate/useful limit
Application	RF amplifier and oscillator	—



SOURCE OPERATING CONDITIONS

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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	—
Grid-to-cathode capacitance	1 pF	—
Plate-to-cathode capacitance	0.6 pF	—



SOURCE OPERATING CONDITIONS

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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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Nominal
Heater current	150 mA	Nominal
Maximum DC plate voltage	250 V	AF amplifier
Maximum plate dissipation	1.6 W	AF amplifier

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum DC heater-cathode potential	80 V	AF amplifier
DC grid voltage	-2.5 V	ClassA; DC plate voltage 90 V
Amplification factor	25	ClassA; DC plate voltage 90 V
Plate resistance	14700 ohm	ClassA; DC plate voltage 90 V
Transconductance	1700 uS	ClassA; DC plate voltage 90 V
DC plate current	2.5 mA	ClassA; DC plate voltage 90 V
DC grid voltage	-3.75 V	ClassA; DC plate voltage 135 V
Amplification factor	25	ClassA; DC plate voltage 135 V
Plate resistance	13200 ohm	ClassA; DC plate voltage 135 V
Transconductance	1900 uS	ClassA; DC plate voltage 135 V
DC plate current	3.5 mA	ClassA; DC plate voltage 135 V
DC grid voltage	-5 V	ClassA; DC plate voltage 180 V
Amplification factor	25	ClassA; DC plate voltage 180 V
Plate resistance	12500 ohm	ClassA; DC plate voltage 180 V
Transconductance	2000 uS	ClassA; DC plate voltage 180 V
DC plate current	4.5 mA	ClassA; DC plate voltage 180 V
DC grid voltage	-7 V	ClassA; DC plate voltage 250 V
Amplification factor	25	ClassA; DC plate voltage 250 V
Plate resistance	11400 ohm	ClassA; DC plate voltage 250 V
Transconductance	2200 uS	ClassA; DC plate voltage 250 V
DC plate current	6.3 mA	ClassA; DC plate voltage 250 V
Load resistance	20000 ohm	ClassA; DC plate voltage 180 V
Second harmonic distortion	5 %	ClassA; DC plate voltage 180 V
Power output	135 mW	ClassA; DC plate voltage 180 V
Plate-supply voltage	180 V	ResistanceCoupling
DC grid voltage	-3.5 V	ResistanceCoupling
Load resistance	250000 ohm	ResistanceCoupling
Plate current	0.42 mA	ResistanceCoupling
Second harmonic distortion	5 %	ResistanceCoupling
Voltage output	45 V RMS	ResistanceCoupling
Voltage gain	20	ResistanceCoupling

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum DC plate voltage	180 V	ClassC; RF power amplifier/oscillator
Maximum DC plate current	8 mA	ClassC; RF power amplifier/oscillator
Maximum DC grid current	2 mA	ClassC; RF power amplifier/oscillator
Maximum DC heater-cathode potential	80 V	ClassC; RF power amplifier/oscillator
DC plate voltage	180 V	ClassC; RF power amplifier/oscillator
DC grid voltage	-35 V	ClassC; RF power amplifier/oscillator
DC plate current	7 mA	ClassC; RF power amplifier/oscillator
DC grid current	1.5 mA	ClassC; RF power amplifier/oscillator
Power output	0.5 W	ClassC; RF power amplifier/oscillator
Plate-supply voltage	180 V	Detector; Biased
Grid voltage	-7 V	Detector; Biased
Load resistance	0.25 Mohm	Detector; Biased
Plate current	0.2 mA	Detector; Biased; approximate
Cathode resistor	50000 ohm	Detector; Biased
Plate-supply voltage	45 V	Detector; GridLeak
Grid leak	1 to 5 Mohm	Detector; GridLeak
Grid condenser	0.00025 uF	Detector; GridLeak

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	1.4 pF	—
Grid-to-cathode capacitance	1 pF	—
Plate-to-cathode capacitance	0.6 pF	—