

ELECTRONIC TUBE REFERENCE

6BC4

Voltage - Triode (single high frequency) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
TRIODE

High-frequency triode for UHF/VHF amplification, mixing, or oscillator service in television, FM, communications, or specialized RF equipment.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9DR	BASE PINS	9
NOMINAL HEATER	6.3 V / 225 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

9DR - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – P	A	P – Plate (Anode)	CONNECTED
PIN2 – G1	A	G1 – Control Grid	CONNECTED
PIN3 – G1	A	G1 – Control Grid	CONNECTED
PIN4 – H	–	H – Heater	CONNECTED
PIN5 – H	–	H – Heater	CONNECTED
PIN6 – K	A	K – Cathode	CONNECTED
PIN7 – G1	A	G1 – Control Grid	CONNECTED
PIN8 – G1	A	G1 – Control Grid	CONNECTED
PIN9 – P	A	P – Plate (Anode)	CONNECTED

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	4800 Ω
TRANSCONDUCTANCE	0.01 S
AMPLIFICATION FACTOR	48
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	2.5 W
MAXIMUM CATHODE CURRENT	25 mA
MAXIMUM HEATER-CATHODE VOLTAGE	75 V
<i>Published promoted fields populated semantically; identical repeated sections compressed where applicable.</i>	

Miniature medium-mu triode designed as an RF amplifier in cathode-drive UHF television tuners covering approximately 470 to 890 MHz.

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
Plate voltage	150 V	ClassA; OperatingPoint1
Cathode resistor	100 ohm	ClassA; OperatingPoint1
Plate current	14.5 mA	ClassA; OperatingPoint1
Plate resistance	4800 ohm	ClassA; OperatingPoint1
Transconductance	10000 uS	ClassA; OperatingPoint1
Amplification factor	48	ClassA; OperatingPoint1

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	2.9 pF	—
Grid-to-plate capacitance	0.26 pF	—
Output capacitance	1.6 pF	—

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
Plate Voltage	150 V	Typical

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	12 mA	Typical



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	1.6 pF	Section1
Grid-to-heater-and-cathode capacitance	2.9 pF	Section1
Plate-to-heater-and-cathode capacitance	0.26 pF	Section1

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	150 V	UHFRFamplifier
Plate current	15 mA	UHFRFamplifier
Application	Cathode-drive RF amplifier, 470 to 890 MHz television tuner	Section1

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	9000 μ S	Section1

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
Voltage fi. ac or do	3 V	—
Current	225 mA	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid to plate	1.6 pF	—
Grid fo heater and cathode	2.9 pF	—
Plate to heater and cathode	0 pF	PublishedColumn1
Plate to heater and cathode	26 pF	PublishedColumn2
Heater to cathode	2.7 pF	—
Plate Supply Voltage	150 V	—
Cathode-Bias Resistor	160 ohm	—
Plate Resistance	4800 ohm	—
Transconductance	10000 μS	—
current of μamp	10 V	PublishedColumn1
current of μamp	-10 V	PublishedColumn2
Plate Current	14.5 mA	—
PLATE VOLTAGE max	250 V	—
PLATE DISSIPATION max	2.5 W	—
CATHODE CURRENT max,	25 mA	—
Neater negative with respect to cathode . max	75 V	—
Heater positive with respect to cathode . max	75 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
For cathode-bias operation max	0 Mohm	PublishedColumn1
For cathode-bias operation max	5 Mohm	PublishedColumn2

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
■ Ef=	6.3 V	—



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-plate capacitance	1.6 pF	—
Grid-to-heater/cathode capacitance	2.9 pF	—
Plate-to-heater/cathode capacitance	0.26 pF	—
Heater-to-cathode capacitance	2.7 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate supply voltage	150 V	ClassA
Cathode-bias resistor	100 ohm	ClassA
Plate current	14.5 mA	ClassA

TUBE TINKER

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

