

ELECTRONIC TUBE REFERENCE

5BK7A

Voltage - Dual Triode (similar high frequency) electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

TRIODE-TRIODE

Medium-mu twin triode designed for cascode VHF tuner amplification below about 300 MHz and for push-pull cathode-drive RF amplifier service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9AJ	BASE PINS	9
NOMINAL HEATER	4.7 V / 600 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

9AJ - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – 2P	B	P – Plate (Anode)	CONNECTED
PIN2 – 2G1	B	G1 – Control Grid	CONNECTED
PIN3 – 2K	B	K – Cathode	CONNECTED
PIN4 – H	–	H – Heater	CONNECTED
PIN5 – H	–	H – Heater	CONNECTED
PIN6 – 1P	A	P – Plate (Anode)	CONNECTED
PIN7 – 1G1	A	G1 – Control Grid	CONNECTED
PIN8 – 1K	A	K – Cathode	CONNECTED
PIN9 – IS	A	IS – Internal Screen	CONNECTED

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	4600 Ω
TRANSCONDUCTANCE	0.0093 S
AMPLIFICATION FACTOR	40
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	2.7 W
MAXIMUM CATHODE CURRENT	20 mA
MAXIMUM HEATER-CATHODE VOLTAGE	200 V
WARM-UP TIME	11 s
<i>Referenced ratings not printed in this source; not inferred.</i>	

SECTION2 Triode	
PLATE RESISTANCE	4600 Ω
TRANSCONDUCTANCE	0.0093 S
AMPLIFICATION FACTOR	40
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	2.7 W
MAXIMUM CATHODE CURRENT	20 mA
<i>Second physical triode section; electrically identical twin section.</i>	

Medium-mu twin triode for cascode VHF tuner amplifiers and push-pull cathode-drive RF amplifiers. Electrical ratings, characteristics, and capacitances were interpreted from the supplied RCA manual excerpt where reproduced; reference-only entries were not supplemented from outside sources.



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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater/filament voltage	4.7 V	Published rating
Heater/filament current	600 mA	Published rating

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Cascode RF amplifier below approximately 300 MHz	CascodeRF

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	1.15 pF	Section1
Input capacitance	2.85 pF	Section1



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1968 General Electric Co

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

1968 GENERAL ELECTRIC CO

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Warmup Time	11 s	—



SOURCE OPERATING CONDITIONS

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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
Plate voltage	150 V	ClassA;EachSection
Cathode bias resistor	56 ohm	ClassA;EachSection
Plate current	18 mA	ClassA;EachSection
Maximum plate voltage	300 V	EachSection
Maximum plate dissipation	2.7 W	EachSection
Heater/filament voltage	4.7 V	DerivativeSheet
Heater/filament current	600 mA	DerivativeSheet

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	4600 ohm	EachSection
Transconductance	9300 uS	EachSection
Amplification factor	40	EachSection

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	1.8 pF	EachSection
Input capacitance	3 pF	EachSection
Output capacitance	1 pF	EachSection



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

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate supply voltage	150 V	ClassA
Cathode bias resistor	56 ohm	ClassA
Plate current	15 mA	ClassA

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	1.8 pF	Section1
Grid-to-plate capacitance	1.8 pF	Section2