

ELECTRONIC TUBE REFERENCE

5814A

Voltage - Dual Triode (similar) electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

TRIODE-TRIODE

Improved special-quality medium-mu twin triode for industrial amplifier, oscillator, phase-inverter, and control service, designed for dependable operation under demanding conditions.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9A	BASE PINS	9
NOMINAL HEATER	12.6 V / 175 mA	PARALLEL HEATER	6.3 V / 350 mA
HEATING	Indirect	SERIES OPERATION	Capable
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

9A - 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 – HCT	–	HCT – Heater Center Tap	CONNECTED

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	7700 Ω
TRANSCONDUCTANCE	0.0022 S
AMPLIFICATION FACTOR	17
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	3 W
MAXIMUM CATHODE CURRENT	22 mA
MAXIMUM HEATER-CATHODE VOLTAGE	700 V
Published promoted fields populated semantically; identical repeated sections compressed.	

SECTION2 Triode	
PLATE RESISTANCE	7700 Ω
TRANSCONDUCTANCE	0.0022 S
AMPLIFICATION FACTOR	17
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	3 W
MAXIMUM CATHODE CURRENT	22 mA
Second physical triode restored under current one-row-per-physical-section policy.	

Premium medium-mu twin triode for mixers, oscillators, multivibrators and synchronizing amplifiers in industrial control equipment. Extracted from the supplied RCA Receiving Tube Manual excerpt.



SOURCE OPERATING CONDITIONS

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1950 Sylvania

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

1950 SYLVANIA

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	2200 μ S	—
Amplification Factor	17	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Voltage	330 V	—
Maximum Plate Dissipation	3 W	—
Maximum Cathode Current	22 mA	—
Heater Voltage Series	12.6 V	—
Heater Current Series	175 mA	—
Heater Voltage Parallel	6.3 V	—
Heater Current Parallel	350 mA	—
Plate Voltage	250 V	ClassA,EachSection
Grid Voltage	-8.5 V	ClassA,EachSection
Plate Current	10.5 mA	ClassA,EachSection



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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	7700 ohm	EachSection
Transconductance	2200 uS	EachSection
Amplification Factor	17	EachSection



SOURCE OPERATING CONDITIONS

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1963 Siemens

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

1963 SIEMENS

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	350 mA	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	2200 μS	Nominal/Bogey
Amplification factor	17	Nominal/Bogey



SOURCE OPERATING CONDITIONS

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1966 Tung Sol Electronic Tubes 3 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 3 OF 4

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	350 mA	—
Maximum heater-cathode voltage, heater positive	700 V	—
Maximum heater-cathode voltage, heater negative	100 V	—
Plate current	11.8 mA	100VPlate
Plate current	10.5 mA	250VPlate
Maximum plate voltage	330 V	—
Maximum plate dissipation	3 W	—
Maximum cathode current	22 mA	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	3100 μ S	100VPlate
Transconductance	2200 μ S	250VPlate
Amplification factor	19.5	100VPlate
Amplification factor	17	250VPlate
Plate resistance	6250 ohm	100VPlate
Plate resistance	7700 ohm	250VPlate

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	1.5 pF	Section1
Grid-to-plate capacitance	1.5 pF	Section2
Input capacitance	1.6 pF	Section1
Input capacitance	1.6 pF	Section2
Output capacitance	0.5 pF	Section1
Output capacitance	0.4 pF	Section2



SOURCE DATA APPENDIX

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 – published value 1	6 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Voltage – published value 2	10 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Voltage – published value 3	6.3 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Voltage – published value 4	10 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Current – published value 1	0 mA	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Current – published value 2	175 A	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Current – published value 3	350 mA	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Grid to prate – published value 1	1.5	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Grid to prate – published value 2	1.5	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Grid to cathode and heater – published value 1	1.6	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Grid to cathode and heater – published value 2	1.6	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate to cathode and heater – published value 1	0.5	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Plate to cathode and heater – published value 2	0.4	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Plate Voltage – published value 1	100 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Plate Voltage – published value 2	250 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Grid Voltage – published value 1	0 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Grid Voltage – published value 2	-8.5 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Plate Resistance (Approx.) – published value 1	6250 ohm	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Plate Resistance (Approx.) – published value 2	7700 ohm	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Transconductance – published value 1	3100	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Transconductance – published value 2	2200	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Plate Current – published value 1	11.8 mA	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Plate Current – published value 2	10.5 mA	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
plate current of 10 μ amp – published value 1	10 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
plate current of 10 μ amp – published value 2	-22 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Pin 1 -Plate of – published value 1	1	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Pin 1 -Plate of – published value 2	6	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Pin 2 -Grid of – published value 1	2	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Pin 2 -Grid of – published value 2	7	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Pins 4 & 9 -Heater of – published value 1	4	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Pins 4 & 9 -Heater of – published value 2	9	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Pins 4 & 9 -Heater of – published value 3	9	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Pins 5 d 9 -Heater of – published value 1	5	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Pins 5 d 9 -Heater of – published value 2	9	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Heater Current – published value 1	1 A	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Heater Current – published value 2	160 mA	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Heater Current – published value 3	190 mA	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Grid to plate – published value 1	2	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Grid to plate – published value 2	1.2	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid to plate – published value 3	1.8	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
heater – published value 1	2	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
heater – published value 2	1.25	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
heater – published value 3	1.95	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
heater (Unit No. 1) – published value 1	2	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
heater (Unit No. 1) – published value 2	0.3	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
heater (Unit No. 1) – published value 3	0.7	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PLATE VOLTAGE	330 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
CATHODE CURRENT	22 mA	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
PLATE DISSIPATION	3 mA	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Heater negative with respect to cathode	100 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Heater positive with respect to cathode	100 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
For fixed-bias operation – published value 1	0 Mohm	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
For fixed-bias operation – published value 2	25 Mohm	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
For cathode-bias operation	1 mA	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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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	1.5 pF	EachSection
Grid-to-cathode/heater capacitance	1.6 pF	EachSection
Plate-to-cathode/heater capacitance	0.5 pF	Section1
Plate-to-cathode/heater capacitance	0.4 pF	Section2

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance alternate condition	3100 uS	ClassA
Plate current	10.5 mA	ClassA

TUBE TINKER

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